



The OKLAHOMA
ANIMAL *Study*

Kirkpatrick Foundation



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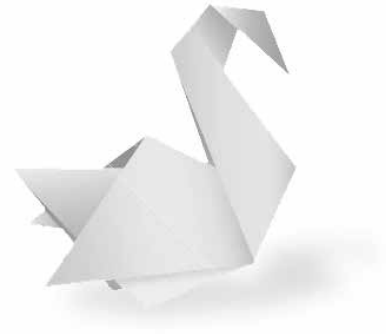
The Oklahoma ANIMAL *Study*

Kristy Wicker, MS
PRINCIPAL INVESTIGATOR

Manda Overturf Shank, MA and MLIS
CO-AUTHOR

Louisa McCune
EDITOR

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ACKNOWLEDGMENTS

ADVISORY COUNCIL

CYNTHIA ARMSTRONG, *Oklahoma State Director, the Humane Society of the United States*

KATHRYN BAYNE, DVM, PhD, and MS, *Global Director, Association for Assessment and Accreditation of Laboratory Animal Care International*

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WIL HUNDL, *State Statistician, Oklahoma Field Office, National Agricultural Statistics Service, United States Department of Agriculture*

BAILEY NORWOOD, PhD, *Associate Professor of Agricultural Economics, Oklahoma State University*

RUTH STEINBERGER, *Executive Director and Founder, SpayFIRST!*

CREATIVE CONTRIBUTORS

STEVEN WALKER, *Art Director (Principal, Walker Creative Inc.)*

TIM FLACH, *Lead Photographer (Animal Portraits)*

GAY BRADSHAW, PhD, *Contributing Editor (Psychologist and Ecologist)*

JIM CHOLAKIS & MEAGHAN HUNT WILSON, MLIS, *Contributing Editors*

LAUREN DOW & KELLY ROGERS, *Assistant Editors*

J. J. RITCHEY & TIFFANY KENDRICK, *Maps and Graphs*

KATHY McCORD & ALANA SALISBURY, *Administrative and Editorial Support*

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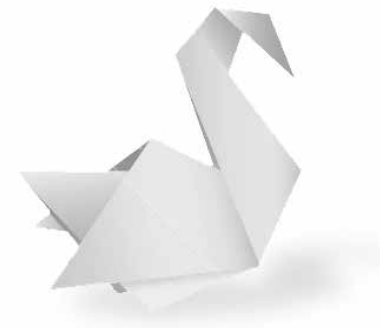


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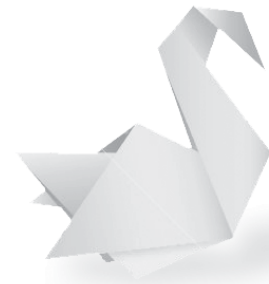
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THE GREATNESS OF A STATE

Historically, Oklahoma has been a leader in many ways, from energy development and weather technology to the creative arts. The state is now poised to address one of the most pivotal topics of our time: animal welfare and protection, from the proliferation of puppy mills to industrial livestock production. For several decades, the Kirkpatrick Foundation has responded to this pressing need with a commitment to assist through the advancement of knowledge and collaboration. In July 2012, we increased our investment with the debut of a twenty-year initiative, Safe & Humane; our goal is to make Oklahoma the safest and most humane place to be an animal by the year 2032. As we endeavor to reach this status, our approach is to convene, honor, promote, fund, and research efforts to improve the lives of Oklahoma animals and the people who care for them. Because human and animal welfare are inextricably linked and because Oklahoma communities view themselves as rooted in proud traditions of cooperation and commitment—and moral and ethical standards—we hope governments, businesses, organizations, and individuals will see the merits of this approach to improved quality of life. To understand and chart the current condition of Oklahoma animals, *The Oklahoma Animal Study* represents an early and essential step in reaching the desired outcome.



METHODOLOGY

The research for this study was conducted between 2013 and 2015. To reflect the diversity of animal interests, we drew data from multiple sources: interviews of local and national professionals, shelter surveys, scientific articles, and literature reviews. Those interviewed included scientists, veterinarians, food-industry specialists, experts in the fields of animal behavior and well-being, animal-welfare advocates, and individuals from animal-protection organizations. The final compilation and authors' analyses were reviewed by a team of experts from the various animal groups.

In 2012, Louisa McCune (Executive Director, Kirkpatrick Foundation), Paulette Black (Program Officer, Kirkpatrick Foundation), and Kristy Wicker (Principal Investigator) identified stakeholder candidates working in the Oklahoma animal-welfare community to serve as foundational information sources for the baseline animal study. It was concluded that stakeholder interviews were a key, effective approach to acquire quantitative and qualitative information for the assessment.

A total of 114 interviews were conducted by Wicker between April 1, 2013, and February 1, 2015. Sixty-eight interviews were conducted with state organizations and their stakeholders, and the remaining thirty-six were conducted with individuals representing national organizations or specialists from other states (designated in this report as non-stakeholders).

An initial group of stakeholders was drawn from the membership of the Oklahoma Roundtable for Animal Welfare, an affiliation of civic, non-profit, and industry leaders who come together twice a year to discuss issues facing Oklahoma animals. From early discussions with roundtable members, we expanded the study to include other leaders in the animal-care community through networking and recommendations.

A majority of the interviews were conducted in person. Some interviews were conducted over the telephone or through e-mail due to scheduling conflicts. On average, each interview lasted approximately one hour. All interviewees were asked questions regarding their opinions of the current or major

animal-welfare issues for Oklahoma animals within their fields of expertise. Additionally, Wicker requested access to and copies of any non-confidential data that would add value to the study. Follow-up questions concerning any materials collected were asked through e-mail or over telephone.

Stakeholders were selected to represent each of the primary animal groups: companion animals, farm animals, horse and other equines, wildlife, exotics, and laboratory animals. Our approach in categorizing of animal subgroups was to best observe the uniqueness and special needs of each group, with regard to use, care, and the daily lives of the animals.

Non-stakeholder interviewees were identified by stakeholders for their involvement in research projects and expertise in animal-welfare research. Non-stakeholder interviews focused on research design, methodology, and broad-scale welfare issues. A list of all stakeholder and non-stakeholder interviewees is provided in the Appendix.

Additional research was conducted to supplement the information provided by stakeholders and non-stakehold-

“ONLY IF WE understand can we care. Only if we care will we help. Only if we help shall they be saved.” —JANE GOODALL

ers, including data from the United States Department of Agriculture (USDA), the Humane Society of the United States, the Animal Legal Defense Fund, the U.S. Census, and multiple research and scholarly documents.

The following objectives were developed by the Kirkpatrick Foundation to direct the research phase of the assessment:

1. Explore the laws that affect Oklahoma animals at the municipal, state, and federal levels;
2. Better understand the population, uses, and care of various animals in the state;
3. Identify animal welfare issues of concern in the state.

All secondary and interview data were analyzed for patterns, problems, and strengths in the status of animals in Oklahoma. Manda Overturf Shank (Program Associate, Kirkpatrick Foundation), co-author, made edits in creating the final document and checked information at this stage with assistance from a fact-checker. Notes

were also made for topics of potential future research in areas where information and data were lacking on a specific animal group. Moreover, the final compilation and analyses of all information were reviewed by an Advisory Council comprised of experts for each of the animal field sections.

Although the study is extensive, the authors understand that this report represents a start in documenting a more thorough understanding of the role and life of animals in Oklahoma. To our knowledge, this study is the first comprehensive analysis for the status of animals in Oklahoma or any other state.

The foundation expects this document to expand and further develop as more information is acquired from and produced by people within Oklahoma and the national animal-welfare community. The foundation will make this study available as a resource for animal-care professionals, state agencies, K-12 educators, university professors, and all others who can use the information here to further educate Oklahomans about the well-being of animals within our borders.



FINDINGS



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Two years of research, interviews, and data retrieval come down to one question: What is the condition of animals in Oklahoma? The answer to the question does not come quickly or easily. What must be taken into consideration are several factors, including the economy and how it affects the local and state levels of support of animal programs; the political environment and the way in which voters and the state legislature decide and change laws; the use of and view toward private and public landownership; and, in general, how Oklahomans in rural and urban settings interact with, view, and respect animals.

With those considerations, the short answer is that, in a number of ways, Oklahoma animals are doing both better and not as well as animals in other parts of the nation and world. Animals in rural areas fare less well than those in urban areas.

Based on raw numbers along with information from stakeholders and the *Oklahoma Shelter Animal Survey*, Oklahoma animal shelters are receiving minimal, if any, support in a majority of the rural communities in the state. While there are some strong anti-cruelty laws in place, there is little structural support in the way of record-keeping, basic animal-shelter maintenance, or free to low-cost veterinary services available to provide adequate care for companion-animal populations.

Companion animals suffer from an overpopulation problem in both rural and urban communities, as they do in many other states—mostly Southern—in the nation. Current Oklahoma laws that restrict smaller cities and counties from creating public animal shelters, that affect spay and neuter services, and that allow for the use of gas-chamber euthanasia and the practice of pound seizure

are hindering the ability of Oklahomans to adequately care for and manage pet overpopulation.

Like companion animals, the horses of Oklahoma also have an overpopulation problem. Domestic horses—racing, competitive, and those kept as pets—and wild horses face welfare issues when owners cannot afford or choose not to care for them. Overbreeding has also contributed to the overpopulation crisis. The 2013 lifting of the ban on horse slaughter in Oklahoma brought the topics of horse euthanasia and overpopulation to public debate.

Horses used in racing, competitive events, and the carriage industry also face specific welfare issues. The current rules and laws governing each industry should be strengthened to reflect national and international standards of care.

Food animals in Oklahoma are meeting current national and legal standards of care in slaughter and transport. However, there are no federal laws governing the raising of these animals, and the use of industrial practices such as crates for sows and the debeaking of chickens is criticized from individuals and groups throughout the nation. Over the last half-century, farm animals were brought indoors to industrialized commercial facilities and subjected to extremely difficult living circumstances, primarily in intensive confinement. But current demands by the consumer, and, in turn, national corporations are changing the way meat animals are cared for at CAFOs (Concentrated Animal Feeding Operations) and at slaughter facilities.

When it comes specifically to the outlawing of sow crates, most other states that have already banned them have a small population of swine. The states still in the process of changing to these facilities—Ohio, Michigan, and

Colorado—produce between 700,000 and 2,000,000, which is closer to the production numbers in Oklahoma. It will be important to watch how the shift in those states affects the agricultural economy and the animals living in these conditions. Ultimately, the change in the way agriculture is practiced will be decided in two ways: in the marketplace by the consumer's dollar and at the state and federal legislative levels. Which comes first is a source of ongoing controversy between corporate agribusiness, environmentalists, animal-welfare advocates, and individual family farmers.

Wildlife suffers the wrath of Mother Nature and habitat destruction. A scarcity of rehabilitation facilities, emergency rescue plans, and trained personnel compromises mortality rates. Oklahoma also has a strong hunting and trapping tradition. However, there is room for broader education of the general public in regards to the laws regulating human and wildlife interaction. The urbanization of the Oklahoma landscape also creates a unique potential for wildlife to intermix with humans, and with education and proper government oversight, those interactions do not have to be negative for either party.

In terms of exotic-animal law, Oklahoma is far behind other states when it comes to private ownership. Oklahoma currently only restricts the ownership of native cats and bears (over fifty pounds) and thus allows individuals to keep exotic animals in both urban and rural households.

The ownership of such animals poses a risk to communities and is considered a public-health issue. Groups such as the Humane Society of the United States and Outreach for Animals have repeatedly warned that exotic animals are a threat to the general public. Without

regulation of exotics or adequate preparation for potential disasters, Oklahoma could likely see a crisis with tigers, lions, bears, and even hyenas.

Although laboratory animals, like farm animals, are highly regulated by the USDA, these creatures are the most “unseen” and “unnoticed” group in the study. In fact, the general public's interaction with laboratory animals is relatively nonexistent. However, allegations in 2015 against the two large research universities in the state may have done a lot to bring this group to the forefront of the animal-welfare discussion. Research facilities should continue to evaluate alternative methods, including the use of pain medication and non-animal testing techniques. How animals are acquired and the conditions of facilities to which they can retire post-research are also areas needing attention.

Oklahoma's current pound-seizure law is a potential area of welfare concern for lab animals. In the past decade, the USDA has worked to limit the ability of research facilities to use Class B dealers in research settings, but the law should be repealed. If nothing else, this act would demonstrate a reasonable concern for the animals in our state.

The purpose of this study is to provide a report on the status and condition of animals in Oklahoma. It is a continuation of the dialogue between the caretakers of animals across our state and those who are committed to a high quality of life in each of our communities. Although dozens of experts were interviewed, we realize there are many more who have valuable information to share. We welcome those with that knowledge to be part of the ongoing conversation, for future studies and for the effort to make Oklahoma a leader in animal welfare.



RECOMMENDATIONS

We list here our top twelve recommendations for 2016 and the foreseeable future to improve the condition of animals in Oklahoma, outlined in more detail throughout each chapter. Recommendations specific to each animal category are listed on the following pages.

- Update and enforce Oklahoma animal statutes. These recommendations include:
 - Repeal the pound-seizure law.
 - Prohibit the use of gas chambers in animal shelters.
 - Remove the population exemption for cities and towns under 10,000 that govern methods of euthanasia.
 - Increase the spay/neuter \$10 deposit for releasing agencies.
 - Remove the current population requirement of 200,000 in order for counties to establish animal shelters and animal-control programs.
 - Require licensing and inspection of municipal and county animal shelters.
 - Restore the statewide ban on horse slaughter.
 - Enact a prohibition on the private ownership of dangerous wild animals.
 - Craft future state legislation on Animal Legal Defense Fund model states: Illinois, Oregon, Maine, California, and Michigan.
- Require and facilitate the licensing and inspection of all Oklahoma animal shelters and, further, encourage the development of rural veterinary and shelter services. Changes essential to this development would include a statewide record-keeping system, training for animal-shelter personnel, enhanced standards of care, and more access to and education about spay and neuter.
- Discourage the expansion of Concentrated Animal Feeding Operations (CAFOs). Educate the public about the effects of CAFOs on human health, animal welfare, and the environment.
- Encourage and support sustainable and humane agricultural practices and the use of local food distribution cooperatives and humane labeling systems.
- Advocate for the use of pain alleviation in farm-animal procedures such as castration, branding, and dehorning. Prohibit tail docking.
- Require horse-racing industry groups to adhere to current rules and laws governing international standards of care.
- Study the prevalence of and ultimately prohibit dangerous wild animals in Oklahoma private homes, auctions, and breeding facilities.
- Encourage and fund the development of domestic-violence and homeless shelters that house pets with their owners. Research demonstrates that battered victims delay leaving or return to abusive situations out of fear for the safety of their animals.
- Support humane education with the placing of animals in schools, shelters, and similar organizations to teach social and emotional learning to children. Teaching the next generation of Oklahomans how to show compassion to all creatures is an essential step in creating a more empathetic society.
- Further develop and create a statewide emergency animal-response plan; train animal-response teams at the local and state level to effectively and humanely respond to natural disasters, including tornados, fires, and floods.
- Educate the public about humane and non-lethal forms of wildlife conflict resolution by raising awareness and facilitating access to information and services.
- Study and educate Oklahomans about (1) the use of canned hunt facilities, (2) inhumane forms of hunting such as trapping and hounding, and (3) inhumane hunting practices at contest kills and rattlesnake roundups.

Companion Animals

Increase services for most of Oklahoma. Currently many people in rural areas have no access to low- or no-cost spay/neuter services or animal shelters. Due to this limited accessibility to care, many unwanted animals are at higher risk for suffering through abuse, neglect, abandonment, and cruelty.

Encourage municipal governments to adopt and improve local shelters and ordinances. This is a necessary first step to making improvements within the shelter system. If cities are not willing to make a priority of caring for animals in their communities, the abilities of individual staff members to make a difference is greatly limited.

Track basic information in shelters. Many of the shelters and care facilities in the state do not accurately keep records of intakes, hold times, and disposition of animals entering the shelters or care facilities. The tracking of this information increases accountability and aids in a better understanding of where shelter systems are succeeding or lacking in quality of care.

Require regulated minimum care standards and inspections for all municipal shelters. Recent legislation requires companion-animal rescue groups housing ten or more animals to be inspected by the Oklahoma Department of Agriculture, Food, and Forestry and be subjected to the

agency's established minimum care standards. Expanding the regulation to municipal shelters will improve the care and record-keeping related to animals entering those shelters.

Enforce the 1986 Dog and Cat Sterilization Act through onsite surgeries or agreements with area veterinarians. Prohibiting the release of non-spayed or neutered animals—unless a contract has been signed by the adopter agreeing to have the animal sterilized—would be most effective at reducing unwanted litters from pets adopted through shelters.

Remove the pound-seizure law in its entirety (Oklahoma Statute Title 4 § 394) as well as the state statute that limits sheltering to counties with populations over 200,000. Educating the public about the implications of such laws would likely garner public support for these sensible changes.

Prohibit the use of gas chambers for the euthanasia of shelter animals. Legislation would strengthen the eradication of that practice and prevent its return.

Strengthen the standards of care in commercial pet-breeding facilities. Establish and enforce the highest national standards for these operations.

Create an animal-abuser registry. This type of system would track convicted animal abusers and prevent them from owning or managing any animal. Legislation of this sort also assists law enforcement. House Bill 2553, creating an animal-abuser registry in Oklahoma, was introduced in February 2014, but the bill died in committee.



STEVEN MEROLA/GETTY IMAGES



RECOMMENDATIONS



JENNIFER MACNEILL-TRAYLOR/GETTY IMAGES

able practices. Participation in local food-distribution programs such as the Oklahoma Food Cooperative and certification with humane farming organizations will improve awareness of meat production and how to ensure its healthy and humane sustainability.

Research and develop affordable and quick pain-alleviation methods and anti-inflammatory medications for use in livestock. Currently, no drugs are approved by the Food and Drug Administration for managing pain in livestock.

Ban the practice of tail docking. The practice is unnecessary, causes acute and chronic pain, and inhibits natural behaviors.

Improve handling and transportation standards. Such improvement requires an understanding of the animal's natural tendencies, abilities, and behaviors; methods of heat relief; access to water; flooring; and handling of downed animals.

Improve working conditions for employees in slaughter facilities, feedlots, and production barns. Worker frustration leads to emotional distancing and detachment from the animals and increases the potential for abuse.

Support the use of shade and of dust management at feedlots to increase the welfare of feedlot cattle. These investments are believed to significantly improve animal experiences.

Cover poultry under the Humane Slaughter Act. There is no requirement that birds be unconscious before they are killed, though FSIS does state that no live animal should enter the scald.

Livestock

Phase out and eventually eliminate the extreme animal-confinement systems, including gestation crates and battery cages. Improving the housing systems for animals in concentrated animal-feeding operations is the most immediate issue for livestock. Intensive confinement of any species leads to welfare concerns such as the ability to engage in natural behaviors, freedom of movement, and the need for controversial

practices such as de-beaking, tail docking, sow crates, and dehorning.

Encourage and reward industry participation in the Five Freedoms of humane husbandry for all farm animals in Oklahoma. These basic tenets are being embraced by large-scale retailers and fast-food chains such as WalMart and McDonald's, despite resistance from corporate agribusiness.

Support and educate farmers and ranchers about humane and sustain-



MARIA ITINA/GETTY IMAGES

Equines

Reinstate the ban on horse slaughter for the state of Oklahoma. While horse slaughter does not exist in the U.S., if the practice were to return, Oklahoma could become a leader in this controversial and disputed practice, which has questionable economic benefit and a high potential for animal abuse.

Educate Oklahomans about the affordability of humane equine euthanasia. Horses can be euthanized and disposed of for as little as \$250, though this process and fee structure is widely misunderstood.

Promote the networking of horse rescues and accredited sanctuaries, and address intentional overbreeding with industry and association groups. Aggressive education is needed within the equine culture to mitigate horse overpopulation in Oklahoma.

Continue to research and mitigate the root causes of unwanted horses.

The number of unwanted horses is exacerbated by the expenses involved in caring for them, including feed, veterinary care, gelding, euthanasia, and proper disposal of their carcasses.

Regulate performance-enhancing drugs in race and show horses. While the Oklahoma horse racing industry currently uses a laboratory accredited by the Racing Medication and Testing Consortium (RMTC) for equine drug testing, the Oklahoma industry has yet to adopt all the regulations of the RMTC's National Uniform Medication Program.



THE NATURE CONSERVANCY

Wildlife

Embrace widespread education efforts about proper hunting practices and respect for wildlife. While Oklahoma has a culture of valuing wildlife and wild places and most hunters have an appreciation for the skills required to hunt game animals, in many cases there remain opportunities to abuse and

disregard wild animals. In addition, educating the public about less consumptive methods of wildlife management and appreciation are vital to ensuring a humane Oklahoma.

Study the prevalence, practices, ethics, and laws related to canned hunts and contest kills such as rattlesnake roundups and coyote hunts in Oklahoma. Focus groups and research into modern attitudes and behaviors about these practices are needed.

Educate the public about urban-wildlife conflict resolution. These encounters will only increase as suburban and urban development continues.

Encourage humane, as opposed to lethal, wildlife conflict-resolution techniques. Promote programs that foster tolerance of and coexistence with wildlife rather than conflict resolution through killing, trapping, etc.

Develop minimum care standards and record-keeping systems for wildlife rehabilitators. The more than 100 state and/or federally licensed wildlife rehabilitators in Oklahoma will benefit from participation in professional organizations such as the National Wildlife Rehabilitators Association and the International Wildlife Rehabilitation Council.

Educate the public about the twenty-one state and federally listed threatened, endangered, or rare species found in Oklahoma. With education, the public can help protect those animals and be inspired to care for other species, too.



RECOMMENDATIONS



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Laboratory Animals

Encourage Oklahoma educational and research institutions to employ the Three Rs: Reduction, Refinement, and Replacement. Reduce the number of animals used; refine practices to reduce animal suffering and distress; and replace animal testing with alternative methods.

Educate and repeal the pound-seizure law. Pound seizure allows Class

B dealers to buy dogs and cats from government-owned shelters for use in research. As of February 2015, Oklahoma is currently the only state that mandates the release of these animals.

Plan adequately for post-research humane retirement of lab animals. Shifts in modern research practices mean that more live animals are emerging from laboratories, which are usually unsuitable for private ownership.

Exotic Animals

Prohibit ownership of dangerous wild animals as pets in private settings. Oklahoma is believed to be a leading and burgeoning state for the possession of dangerous wild exotic animals because of its lax laws in this area.

Educate the public on the requirements for, public safety issues related to, and animal-welfare conditions of wild-animal ownership. The extent of private ownership of exotic wildlife is unknown in Oklahoma. Exotic-animal owners are only required to hold permits for wild animals (tigers, lions, primates), only if they allow members of the public on their property. Wild animals have highly specialized needs that are often not met in captivity, and those neglected needs can cause harm to the animals and people.

Encourage and support animal sanctuaries in Oklahoma which achieve accreditation from the Global Federation of Animal Sanctuaries. This

ensures that certain conditions are met in animal care, handling, and housing. There is one sanctuary in Oklahoma accredited by the Global Federation of Sanctuaries. No sanctuaries in Oklahoma are accredited by the American Sanctuary Association. Several organizations call themselves wild-animal sanctuaries in Oklahoma, including some that are open to the public.

Human-Animal Programs

Develop a state-managed emergency management plan for disaster. Animal-response teams are essential during environmental disasters that affect Oklahoma, including tornadoes and wild fires. More county animal-response teams are currently being developed through the Oklaho-

ma Medical Reserve Corps to work in cooperation with existing emergency response teams and within the incident-command structure.

Develop humane education programs throughout Oklahoma, from Pre-K through 12th grade to college level. Teaching Oklahomans about our rich history with all categories of species is essential to creating a statewide culture that values animals, the environment, and urban and rural quality-of-life concerns. Also, companion animals in the classroom are a proven tool for fostering social and emotional learning in young people.

Expand the Oklahoma Link Coalition across the state. The Link is an important step in advocating change regarding the link between violence toward animals and other forms of

violence including domestic violence, child abuse, and elder abuse.

Encourage and fund domestic-violence shelters that are able to house pets with their owners. Research shows that many domestic-violence victims will not leave their abuser if the victim is unable to also take their pet with them. Tulsa currently has the only such shelter in the state.

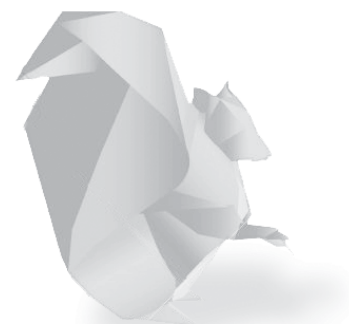
Promote and support animal-assisted therapy and service programs in the state, including prison dog and cat programs, equine-assisted therapy, and veteran service-dog programs. Research into the use of trained companion animals for emotional needs is demonstrating it to be an effective treatment of PTSD and certain neurological and behavioral conditions.



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A GREATER UNDERSTANDING

While global trends affect us all in different ways, questions of animal welfare often begin at home. In the case of the Kirkpatrick Foundation's Safe & Humane initiative, "home" is the state of Oklahoma. To understand animals in the state, it is necessary to understand the nature and conditions of the people, their culture, and the land that is home to these animals. For this reason, animal well-being in this study was explored, in part, through the lens of the people and organizations—their policies, laws, and standards—that determine animal well-being in the state. Dynamic factors over time have led to the evolution of attitudes and laws that affect animal care today in Oklahoma. For the state to achieve a high standard in this arena, it will need the leadership and support of citizens both inside the state and out—today and in the future—who are actively committed to improving animal welfare.



OVERVIEW

NAVIGATING HUMAN AND ANIMAL WELFARE

Humans have always lived with animals domestically and in the wild. Our food, rituals, personal and social ethics, religion, and laws can be shaped by the ways in which animals are perceived. In turn, human-animal relationships vary tremendously across cultures and generations. The human-animal relationship and bonds are at the core of animal-welfare issues, and animal welfare lies at this complex nexus of cultural events and change.

Part of the complexity of animal-welfare issues draws from what many authors describe as an intrinsic contradiction in the ways in which animals are treated.^{1,2} Law and culture simultaneously categorize animals as human property and living beings.³ This classification grants humans with the power to own and use animals in most any way they see fit. Yet, at the same time, many in our culture feel a moral sense of duty to protect and care for our animal kin.

On one hand, turkeys, cows, pigs, chickens, and other species form the mainstay of human food production; on the other, dogs, cats, and parrots are treated as household members. Animals such as horses and rabbits are “cross-over” species, at times used for food or labor; others are family “pets.”⁴ From the animals we consider domesticated and sometimes anthropomorphize to those considered “in the wild,” most animals will ultimately be affected in their health and wellbeing, either directly or indirectly, by humans and the environment humans create.

The importance of animal welfare is reflected in the ways people spend their money. In the twenty years between 1994 and 2014, expenditures for pets in the United States skyrocketed from \$17 billion to more than \$58 billion.⁵ Up to 80 million dogs and 96 million cats share homes with human guardians in the U.S. alone. Nearly half of U.S. households live with dogs and up to 37 percent with cats.⁶ This does not include the 13 million reptiles, 16 million birds, 150 million fish, and 24 million small or “pocket” animals such as ferrets and guinea pigs.⁷

Mental- and medical-health professionals now verify what those who have pets have known intuitively for centuries. Animal companions and wildlife make us feel good. Interacting with animals contributes greatly to human psychological and physical health. People who live and interact with animals experience lower blood pressure, reduced anxiety, and an improved sense of well-being. Bonds with dogs, cats, rabbits, and myriad companion animals offer love, care, and reassurance in times of crisis, adversity, and transition.^{8,9} The absence of living positively and intimately with nature has even garnered a formal diagnosis: nature-deficit disorder.

Other benefits accrue in living intimately with other animals. For example, learning to care for and appreciate an animal provides an antidote to violent behavior that is now epidemic in schools—bullying, lack of empathy, and poor social skills. Neuroscientists have documented in detail how empathy and emotional self-regulation reflect the social and ecological setting

in which a child is reared. For example, research comparing the brain activity of boys with aggressive-conduct disorder to a control group found that the boys with aggressive disorders experienced heightened activity in the reward center of their brains when they viewed videos of people intentionally inflicting pain on others and no activity in the regions of the brain associated with moral reasoning and self-regulation.¹⁰

This scientific research and a growing body of evidence reveal the connection between animal cruelty and other violent behavior. Once viewed by law enforcement as a tangential concern better left to animal-welfare organizations, animal cruelty is now becoming recognized as part of a larger network of violence and crime, including domestic and child abuse, drug trafficking, gambling, illegal firearms possession, rape, and murder. Many communities provide cross-training and cross-reporting for law enforcement personnel, social-service workers, and animal-control agencies to recognize signs of animal abuse and other forms of community violence.¹¹

Dr. Melinda Merck, forensic veterinarian, says, “These types of cases are difficult enough even when we have all the evidence, in part because it’s very hard for investigators and prosecutors to even consider that someone would do things like this. A lot of the work I do involves not just talking to vets but reaching out to law enforcement to make them more knowledgeable on these matters, to make them understand, for example, that things like sexual assault of children and animals are linked. They are similar victims.”¹²

“ONE TOUCH OF nature makes all the world kin.” —JOHN MUIR



SHALOM ORNSBYGETTY IMAGES

other lessons—and the trained dogs become more adoptable.

Welfare concerns are not limited to companion animals. Farm-animal well-being has become a major mainstream issue at the confluence of human health and animal protection. More and more people are concerned about what is in their food and how their food is produced. The plant-based (vegan) and vegetarian movements are stimulated both by concerns for animal welfare and by negative health effects associated with pesticides, GMOs, and other products and methods used in modern food production.

As an April 2013 *New York Times* article asserts, the “market for vegan and vegetarian food choices...is growing fast, driven by consumer concerns ranging from health and economics to the environment and animal welfare.”¹⁶ Almost every restaurant and food-service entity offers an alternative to meat and dairy products. Even fast-food chains carry an array of salads, vegetable, and meat-free meals.

In 2013, 73 million Americans were vegetarian and one million vegan. *Forbes* identifies veganism as “one of the top ten food trends.”^{17,18} The fact that 42 percent of American vegans and vegetarians are between the ages of 18 and 34 means that this base will increase and maintain staying power.

Scientific understanding has also moved with the times. In 2012, a group of prominent neuroscientists gathered on the steps of Cambridge University in the United Kingdom to announce a Declaration of Consciousness stating that animals, including invertebrates

Once restricted from hospitals, nursing homes, schools, mental-health facilities, and prisons, animals are now employed regularly in these settings. Reciprocal benefits are also recognized by the American Veterinary Medical Association, which cites positive effects in the health and well-being of both people and animals, emotionally, psychologically, and physically. The role of veterinary medicine has expanded accordingly “to maximize the potential of this relationship between people and animals.”¹³ There are also pet-loss programs established

in veterinary schools and clinics that support the families of animals in need of hospice care and, when the animal eventually dies, grief counseling.¹⁴

The number of animal-assisted therapy programs helping children and adults with emotional and behavioral issues is increasing each year all over the world, including programs with dogs, horses, wild mustangs, bovines, and elephants.¹⁵ A number of programs throughout the country pair at-risk or incarcerated youth with shelter dogs. The youth learn positive techniques to train the dog—and many



OVERVIEW

such as octopuses, share with humans comparable capacities to think, feel, and experience consciousness.¹⁹ Research studies show that nonhuman animals possess abilities once thought to be uniquely human—crows use tools, chimpanzees are math whizzes, war-worn dogs and elephants acquire post-traumatic stress disorder (PTSD), and the list goes on. Now that neuroscience reveals there are more similarities than differences among species, the human sense of self has changed.

In 2006, Whole Foods “banned the sale of live lobsters and crabs...citing that transporting, storing, and cooking live animals was inhumane.” This corporate decision was made after investigating “the biology and sentience in lobsters, including studying the final report of the...European Food Safety Authority Animal Health and Welfare panel, which concluded all decapod crustaceans, including lobsters and crabs, are complex

in behavior and appear to have some degree of awareness, feeling pain and having the ability to learn.”²⁰

As human culture evolves, so do the issues and definitions of animal welfare. Scientists discuss how human and non-human welfare are co-dependent and non-exclusive; achieving significant improvement in animal well-being requires deep social, psychological, and economic adjustment on the part of our own species. Improving animal welfare implicitly entails changing those aspects of human culture that cause animal suffering and compromise well-being. As studies show, there are also psychological and cultural challenges. By learning new ways to minimize human causes of animal suffering, our species is charged with creating a new identity and new social compacts with fellow human beings.

Historically, defining animal welfare has always been a challenge.²¹ Animal welfare can include physiology, behavior, psychology, pain experiences, health and immunity, stress-hormone levels, brain development, perception of the world, cognitive experiences, mental state, anatomical problems, and other terms yet to be defined.²² Conventional measures of animal well-being include assessments of biological fitness, behavioral responses, and the degree to which an animal is able to engage in natural behaviors.²³ Veterinarians and farmers have largely relied on biological indicators as measures of well-being, such as productivity and physiological responses, to determine how an animal is faring.²⁴ The American Veterinary Medical Association states animal welfare as “a human responsibility

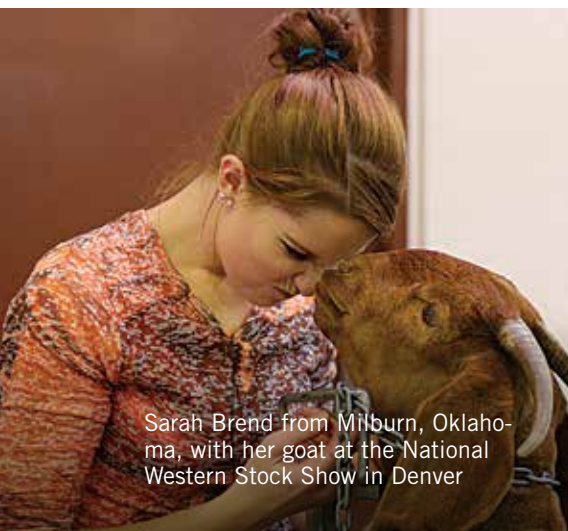
that encompasses all aspects of animal well-being, including proper housing, management, nutrition, disease prevention and treatment, responsible care, humane handling, and, when necessary, humane euthanasia.”²⁵

Subsequently, the undertaking of improving animal welfare must also take into consideration other society issues.²⁶ Technology, mass production, transportation, and burgeoning human populations have exponentially increased the number of domestic animals in research, homes, food industries, and entertainment. For example, even in countries such as China, where meat consumption was limited historically, demands for animal products have skyrocketed with socio-economic shifts. Improving the lives of animals can involve substantive economic hardship and increase the difficulty to achieve the goal *unless* the path forward is carefully engineered through education and institutional, legal, social, and economic stewardship.

While speaking of farm-animal welfare, John McGlone, professor and institutional official at Texas Tech’s Department of Animal and Food Science, emphasizes this multi-disciplinarian approach. McGlone says, “Only taking into account all society issues (economic, environmental, safety, others) can the multidisciplinary approach yield useful information to the modern consumer in a manner that can develop sustainable animal production systems.”²⁷ In today’s society and environment, in order to improve animal well-being, whether on the farm, in the home, in neighborhoods, or in the wild, individuals and the general public should consider accepting a greater impact on all involved.

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Sarah Brend from Milburn, Oklahoma, with her goat at the National Western Stock Show in Denver

CYRUS MCCORMICK/GETTY IMAGES



UNDERSTANDING OKLAHOMA



The scissor-tailed flycatcher is the Oklahoma state bird.

LAND OWNERSHIP

More than 95 percent of Oklahoma land is privately owned and much remains undeveloped. On average, there are fifty-four Oklahomans per square mile, compared to the national average of eighty-seven people per square mile. Of the 598 incorporated towns and cities, only three have populations greater than 100,000: Oklahoma City, Tulsa, and Norman. Oklahoma City is the state's capital and also the largest city with an estimated population of 599,199.¹

DEMOGRAPHICS

The 2013 United States census shows Oklahoma's population at roughly 3.8 million. Six percent are foreign born and 9 percent speak a language other than English at home (nationally the numbers are 13 percent and 21 percent, respectively). Twenty-three percent of Oklahomans (29 percent nationally) have at least a bachelor's degree. Seventeen percent of Oklahomans between 2008 and 2012 (15 percent nationally) were under the poverty line.²

ECONOMIC ANALYSIS

Farming and ranching have historically been and continue to be important industries in the state's economy. Cattle is the number-one state agricultural commodity, and Oklahoma ranks fifth nationally in cattle production.² Oklahoma also plays a major role in the national pork and poultry meat industries, ranking eighth and eleventh, respectively, in the nation's production.³

NATIVE WILDLIFE IN the state include deer, coyotes, mountain lions (cougars), elk, sandhill cranes, black bears, and river otters. More than 500 species of birds can be seen in Oklahoma skies, lands, and waters as they pass twice a year through the Central Flyway of North America.

Currently, several state legislators come from occupations within or related to the animal agricultural industry. Two members of the Oklahoma House of Representatives are farm veterinarians: Representative Brian Renegar (McAlester) and Representative Lee Denney (Cushing). The predominance of the animal agricultural industry and private and farm-oriented land ownership accounts for a strong utilitarian view of animals, an attitude that is mixed with a history of land stewardship, animal care, and the appeal of an independent lifestyle.⁴

ECOLOGY & CLIMATE

Oklahoma is a crossroads both ecologically and geographically. It is one of only four states with more than ten eco-regions, each characterized by distinct flora, fauna, and geology. The state's elevation ranges from Black Mesa's peak at 5,705 feet to 289 feet at the Little River. Oklahoma's terrain is shaped by mountains, swamps, forests, prairies, plains, rivers, lakes, and ponds.⁵

Oklahoma's climate plays a significant role in the lives of wildlife, domesticated animals, and the people involved in animal care. Most Oklahoma winters have on average sixty days when the temperature is 32°F or lower, while summers in Oklahoma typically have sixty days when it's 90°F or higher. Winter precipitation is dominated by rainfall, with snow more prevalent in the western panhandle. Droughts historically reoccur and can last a few months to several years. Western Oklahoma is often more affected by drought and, as a



result, is more susceptible to wildfire. Droughts affect water availability for animals and humans.

Tornadoes are a particular hazard in Oklahoma, occurring mainly in the months of April, May, and June. Since 1950, an average of fifty tornados have been observed annually in Oklahoma. Each year, different parts of the state can be affected by tornadoes. The most well-known recent occurrence was in 2013 when several large tornadoes destroyed property throughout the state and in the city of Moore.⁶

BIODIVERSITY

The diversity of Oklahoma's landscapes provides habitat for a number of wildlife species. Native wildlife include deer, coyotes, mountain lions (cougars), elk, sandhill cranes, black bears, and river otters. Over 500 species of birds can be seen in Okla-

homa skies, lands, and waters as they pass twice a year through the Central Flyway of North America.⁷ Oklahoma is also home to its native state animal, the American bison.

EDUCATION & SOCIAL SERVICES

The idea of humane education—in its simplest form instilling the ethic of kindness toward animals—has been part of animal protection in the U.S. for nearly 140 years. National campaigns in the early 1900s argued for the value of humane education and advocated that it be a required component in children's education.

In 1905, the Oklahoma legislature passed a humane instruction act. This law required children to be taught "kindness to and humane treatment and protection of dumb animals and birds; their lives, habits and useful-



UNDERSTANDING OKLAHOMA

ness, and the important part they are intended to fulfill in the economy of nature” for at least half an hour each week during school.⁸ At the time, Oklahoma was one of only three states to have legislatively mandated humane education.

Today, humane-education programs in Oklahoma are most likely offered by animal-rescue groups and other organizations. Dr. Teresa Randall, education director for Oklahoma City Zoo, states

that the zoo incorporates humane education principles in all of the public education programs it offers, though the programs are not explicitly identified as humane education.⁹ The Tulsa Zoo also has educational outreach programs designed to encourage a “healthy appreciation of wildlife and conservation.”¹⁰

Volunteers at Best Friends of Pets in Oklahoma City and the Oklahoma Alliance for Animals in Tulsa, along with many other animal rescues across

the state, offer educational programs on pet ownership, bite prevention, and pet overpopulation to children and adults. Bella Foundation and New Leash Companion Animal Center nonprofits provide education via outreach and special events throughout the year.

4-H and Future Farmers of America (FFA) are popular youth programs in Oklahoma that promote livestock care and education. 4-H is the nation’s largest youth-development organization with hands-on learning activities in animal science, healthy living, and food security administered by the National Institute of Food and Agriculture of the USDA.¹¹ Oklahoma 4-H is administered through the Oklahoma Cooperative Extension Service, with 4-H programs in all seventy-seven Oklahoma counties.

In 2013, 111,208 young people (ages 9 to 18, from fourth grade through high school) participated in these programs, 22 percent of whom lived on farms and 33 percent in rural communities. In 2013, more than 18,000 children and youth enrolled in 4-H animal agriculture projects, such as the raising of poultry, goats, sheep, cattle, or swine.

Oklahoma FFA ranks fifth nationally, with 25,566 members during the 2013-2014 school year. The FFA, similar to 4-H, is a program for older students and often counts for a class credit in school. FFA coursework is divided into eight careers paths, including Animals Systems, Agribusiness Systems, Food Products, and Processing Systems. The Animal Pathway, which includes study of animal life processes, health, genetics, and nutrition, had an enrollment of 7,378 members in 2013.

Tyler Norvell, executive director of the Oklahoma Youth Expo, states:¹² “We have over 7,000 youth compete at the Oklahoma Youth Expo annually with at least one student from every county in Oklahoma. These 7,000 students exhibit over 13,000 head of livestock at the event each year.”

However, Farm Sanctuary, an animal-welfare group, states that the FFA “regards animals as teaching tools and encourages their slaughter as a means of project completion. This occurs despite the strong bonds that many of the students develop with their animals.”

In Oklahoma, there are many organizations, nonprofits, and individuals providing education consistent with the tenets of humane education, but Internet searches found that only the Central Oklahoma Humane Society specifically mentioned “humane education” programs in its offerings.

A DYNAMIC LANDSCAPE

From the banning of cockfighting to the lifting of the fifty-year ban on horse slaughter, Oklahoma animal-welfare legislation has seen changes in recent years. Historically, Oklahomans have publicly debated questions of animal care—economically, politically, and ethically. Some of these debates have also been put to a vote of the people. There still remains, however, other animal-welfare issues that are contentious and warrant public discussion, many presented on the following pages.

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In 1942, photographer Alfred Eisenstaedt documented Oklahoma agriculture for *Life* magazine.

ALFRED EISENSTAEDT/GETTY IMAGES



TIM FLACH/GETTY IMAGES



COMPANION ANIMALS

They are our often are closest friends, and accordingly, we begin our animal discussion with them. Historically, the animal-protection movement in the United States has focused primarily on the care and well-being of companion animals, in part because the number of companion cats and dogs has tripled in the U.S. since the 1970s.¹ In Oklahoma alone, there are more than two million companion animals in homes as pets and untold numbers of former pets and strays held in shelters and rescue centers. Survey data and interviews for this baseline report show that Oklahoma, like many states, suffers from companion-animal overpopulation, defined as an imbalance between animals in need and the resources to provide quality care and homes.



COMPANION ANIMALS

BACKGROUND

For this study, companion animals are defined as animals whose “purpose” is deemed to be human companionship. This section will focus mainly on the laws, regulations, and care of dogs and cats as pets, as they represent the majority of companion animals in Oklahoma and the U.S.²

In Oklahoma, companion animals are found in the home, as strays, and in different types of shelters and organizations dedicated to population management. These facilities include (1) municipal shelters that provide animal-control services and are funded through taxes or licenses; (2) private shelters that rely on fund-raising to provide services; (3) rescue groups that are dedicated to re-homing displaced animals; and (4) foster homes that are temporary locations provided by volunteers for animals needing adoption (usually an extension of rescue organizations).³ The regulations and laws affecting these different groups will be discussed in this section.

In addition to information collected from stakeholders, government agencies, interviews at shelters, and research of government reports and state and federal laws, this section of the baseline report includes information from the *Oklahoma Shelter Animal Survey* (2014). Funded by the Kirkpatrick Foundation, researcher Ruth Steinberger, co-CEO and founder of SpayFIRST!, conducted a survey of 136 municipal animal shelters and animal-control systems throughout Oklahoma from late 2013 to spring 2014. Steinberger surveyed shelter employees regarding shelter policies and activities, including adoption, euthanasia, intake numbers, how cruelty complaints were handled, and spay/neuter procedures.⁴

After we analyzed the information collected from our sources, two main areas were identified that compromise companion animal well-being in the state of Oklahoma:

- Current statutes in the state do not provide for uniform enforcement of neglect, cruelty, and abandonment. State anti-cruelty laws are not enforced in most counties because of a lack of infrastructure, including sheltering; the necessary services remain unfunded and the overall response is dependent on available nonprofit assistance.
- Inadequate resources for animal shelters, rescues, and city or county organizations (primarily in rural Oklahoma) that would allow those agencies to track, maintain,

and care for homeless, unwanted, and relinquished companion animals.

CURRENT LAW AND POLICY

Animal Welfare Act

The Animal Welfare Act (AWA), passed in 1966, is the primary federal law regulating the care and treatment of animals used in research, for exhibition, or in wholesale commercial operations. AWA regulations, which are licensed and enforced by the United States Department of Agriculture’s (USDA) Animal and Plant Health Inspection Service (APHIS), apply to wholesale breeders, dealers, exhibitors, and research laboratories.⁵ Companion animals that are used in breeding, research, or commercial businesses fall under this statute.

Commercial Breeding Laws

The USDA licenses and inspects facilities that breed and sell animals for wholesale trade (i.e., businesses that breed and sell animals to pet stores, brokers, or research facilities), including Internet-based pet breeders with more than four breeding females. Facilities that sell directly to the public, where buyers can physically observe the animals before purchase, are not required to obtain a USDA license. The USDA also licenses anyone involved in importing, buying, selling, or trading pets in the wholesale trade and dealers and breeders involved in laboratory-animal trade. The USDA issues the following licenses: Class A (individuals who breed dogs/cats to sell) and Class B (dealers who procure animals from others to sell; dealers do not breed animals at their facilities).⁶

In 2012, Oklahoma passed the Commercial Pet Breeders Act, establishing the Board of Commercial Pet Breeders to regulate breeding facilities with eleven or more females. Amended in 2011, the Oklahoma Department of Agriculture, Food, and Forestry (ODAFF) now oversees licensing of commercial breeding. Currently, there are 206 licensed commercial pet breeders in the state. In 2013, Oklahoma was the third-largest state of licensed breeders, with 205 USDA Class A and Class B licensees. This licensed number is down from previous years, with 266 licensees in 2011 and 249 in 2012.⁷

In 2013, the Oklahoma legislature passed regulations requiring non-governmental animal-rescue centers housing ten

or more rescue dogs and/or cats be licensed and inspected by the ODAFF. Municipal shelters are not inspected or regulated by the ODAFF. Moreover, the Commercial Pet Breeders Act of 2012 was amended to include non-municipal shelters and is now called the Commercial Pet Breeders and Animal Shelter Licensing Act. Licensing requires a \$200 application fee, and facilities must maintain records for each animal and comply with standards of care identified in the Commercial Pet Breeders Laws and Rules.⁸ This licensing legislation regulates those facilities under contract or operated by the state, county, municipal corporation or a facility owned by any private person. It does not apply to those individuals who are fostering animals through rescue organizations. According to Kristen Pariser, legal extern for the Friends of Animals nonprofit, this type of legislation that does not create different regulations for shelters and rescues and does not regulate the fosters systems is common throughout the U.S.⁹

Anti-Cruelty Laws

Laws against animal cruelty are found at the federal and state levels and through city ordinances in Oklahoma. Typically, animal-cruelty situations involving domestic animals are handled by state, county, or local police or animal-control agencies. Oklahoma’s state animal-cruelty laws, including those prohibiting animal fighting, fall under local law-enforcement jurisdiction (city and county) and include felony and misdemeanor penalties. (See **FIGURE COMPANION 1** for specific animal cruelty laws in the state.)

Under Oklahoma Statute Ann. 21 § 1680.4, if police officers observe or suspect animal abuse, they are allowed to order the owner to make standards-of-care changes within a certain amount of time. The statute also describes the process by which the animal may be seized if the ordered changes are not met. If the abuse is at a felony level, animals may be seized without terms or conditions. Jeanne Snider, assistant city attorney for Norman, states that Title 21, Chapter 67, is an essential bill in combating animal cruelty. Snider explains that, unlike tickets or other measures which may be delayed in the court system, the process under this statute works more quickly and efficiently in rescuing animals in abusive situations.¹⁰

Oklahoma House Bill 2553, first introduced in February 2014, would have required that convicted animal abusers register with the sheriff in their county of residency and that

those abusers must renew their registration every year for fifteen years. Abusers would have been prevented from owning or having in his/her possession, care, custody, or control any animal. The bill died in committee in February 2014.¹¹

Oklahoma’s laws have strong protections for companion pets in incidents of domestic violence. Oklahoma Statute Ann. 22 § 60.2e reads:

E. The person seeking a protective order may further request the exclusive care, possession, or control of any animal owned, possessed, leased, kept, or held by either the petitioner, defendant or minor child residing in the residence of the petitioner or defendant. The court may order the defendant to make no contact with the animal and forbid the defendant from taking, transferring, encumbering, concealing, molesting, attacking, striking, threatening, harming, or otherwise disposing of the animal.¹²

While many states in the U.S. do not allow any protection of the animal in domestic-violence situations, this Oklahoma law gives victims the right to appeal for a protective order for their pets even if a victim’s spouse is the animal’s registered owner. The benefit of this law is that it allows victims to leave an abusive situation without fear of harm coming to their animals, which often is a reason for staying in an abusive situation.

Cities in Oklahoma also have local ordinances prohibiting animal cruelty or abuse. For example, the city of Norman currently prohibits individuals from committing acts of animal cruelty, including depriving animals of food and water, unjustly poisoning an animal, and leaving an animal in a vehicle without proper ventilation. According to the Norman ordinance, animal-control, police, or fire department officials are “authorized to remove, impound, or take possession of any animal which has been treated in any manner or fashion in violation of the above offenses.”¹³

Amber Romo, statistical analyst for the Oklahoma Department of Corrections (ODOC) Evaluation and Analysis Unit, reported that as of July 2014 there were forty-four offenders incarcerated and forty offenders on probation or



COMPANION ANIMALS

parole for animal-cruelty offenses such as cruelty to animals, instigating fights between animals, and willfully poisoning an animal in Oklahoma. As of October 2015, Patricia Isbell of the ODOC Evaluation and Analysis Unit, noted that those numbers had changed from thirty-four incarcerated and fifty under probation and parole. This data only includes offenders actively serving a sentence for animal cruelty who are in custody or under supervision of the ODOC. Romo noted that any offenders convicted of these crimes and serving jail time or probationary sentences under a district attorney’s supervision would not be included in these numbers. She also stated that there were known problems with probation and parole data that could affect the numbers provided.¹⁴

Of the 1,685 open cases reported by the Tulsa County District Attorney’s office for the entire state from October 2014 to March 2015, nine cases were for animal cruelty. Seven of those were considered felony in nature. Pet-abuse.com, a national animal-protection organization that maintains a database of animal-cruelty cases in the U.S., lists 290 animal-cruelty cases in Oklahoma between 1977 and March 2014. The database showed 152 cases in Kansas, 321 in Missouri, and 826 in Texas. Cynthia Armstrong, Oklahoma state director of the Humane Society of the United States (HSUS), noted that the cases on Pet-abuse.com are those that can be found in the media and are not a complete listing of all cruelty cases that enter the court system.¹⁵

Each year, the Animal Legal Defense Fund, a nonprofit law organization that aims to protect the rights of animals in the legal system, releases a report on state animal-protection laws. The report gives each state a score based on questions in fifteen categories of animal protection, including penalties, protective orders, and cost-of-care statutes. In recent years, Oklahoma ranked in the Middle Tier, then dropped to a lower rank, from twenty-second in 2011, thirtieth in 2012, thirty-eighth in 2013, to thirty-third in 2014. In 2015, Oklahoma rose to seventeenth (see Appendix). Lora Dunn, Animal Legal Defense Fund staff attorney, explained the drop was mainly caused by other states improving or adding animal-protection laws.¹⁶

The HSUS ranked Oklahoma thirtieth (in terms of states with the strongest animal protection laws) in the most recently published Humane State Ranking 2014 report, based on public policies that include animal-abuse penalties, inclusion of pets in domestic-violence orders,

and cross-reporting of animal cruelty between government agencies. Oklahoma was twenty-sixth in the HSUS’s ranking of state dogfighting laws in 2013.¹⁷

OKLAHOMA STATUTES

Oklahoma Shelter Statute

Oklahoma Statute Ann. 4 § 43 requires that a county must meet a minimum human population of 200,000 to qualify for the establishment and operation of an animal-shelter unit. Only three counties in the state—Oklahoma, Tulsa, and Cleveland—have a population that qualifies for this statutory requirement.¹⁸

Oklahoma Spay/Neuter Statute

The Oklahoma Dog and Cat Sterilization Act, Oklahoma Statute Ann. 4 § 499.2, requires that any animal adopted from municipal shelters be spayed or neutered before adoption, or adopters must sign an agreement stating the animal will be spayed or neutered within thirty days:

*No dog or cat may be released for adoption from a releasing agency unless said animal has been surgically spayed or neutered; or unless the adopting party signs an agreement to have the animal sterilized, and deposits funds with the releasing agency to ensure that the adopted animal will be spayed or neutered. The amount of the deposit required shall be determined by each individual releasing agency ... no less than Ten Dollars (\$10.00)... The funds deposited with the releasing agency shall be refunded to the adopting party. However, no refunds shall be made unless said animal was spayed or neutered within sixty days of adoption in the case of adult animals.*¹⁹

Under this law, shelters in Oklahoma are free to choose the method of enforcement for companion-animal sterilization. Some shelters contract with area veterinarians to perform the surgeries at reduced cost while others use adoption contracts that require a refundable deposit when the owner

STATUTE 21 OKL. ST. ANN.		PUNISHMENT
§ 1680.3. VETERINARIAN REQUIRED TO REPORT SUSPECTED ANIMAL ABUSE	A veterinarian shall report suspected cases of animal abuse to a local law enforcement agency in the county where the veterinarian is practicing within twenty-four (24) hours of any examination or treatment administered to any animal which the veterinarian reasonably suspects and believes has been abused	NA
§ 1681. POISONING ANIMALS	Any person who willfully administers poison to any animal, the property of another, and every person who maliciously exposes any poisonous substance with intent that the same shall be taken by any such animal	Felony punishable by imprisonment in the State Penitentiary not exceeding three (3) years, or in a county jail not exceeding one (1) year, or by a fine not exceeding \$250, or by both such fine and imprisonment
§ 1685. CRUELTY TO ANIMALS	Any person who shall willfully or maliciously torture, destroy or kill, or cruelly beat or injure, maim or mutilate any animal ... or deprive any such animal of necessary food, drink, shelter, or veterinary care to prevent suffering; or who shall cause, procure or permit any such animal to be so tortured, destroyed or killed, or cruelly beaten or injured, maimed or mutilated, or deprived of necessary food, drink, shelter, or veterinary care to prevent suffering; or who shall willfully set on foot, instigate, engage in, or in any way further any act of cruelty to any animal, or any act tending to produce such cruelty	Felony punishable by imprisonment in the State Penitentiary not exceeding five (5) years, or by imprisonment in the county jail not exceeding one (1) year, or by a fine not exceeding \$5,000
§ 1686. ABANDONED ANIMALS	Any person owning or having charge or custody of a maimed, diseased, disabled, or infirm animal who abandons the animal or who allows the animal to lie in a public street, road, or public place one (1) hour after the person receives notice by a duly constituted authority that the animal is disabled or dead	Misdemeanor
§ 1688 ANIMALS IN TRANSIT	Any person who carries or causes to be carried in or upon any vessel or vehicle, or otherwise, any animal in a cruel or inhuman manner, or so as to produce torture	Misdemeanor
§ 1689 POISONOUS DRUGS	Any person who unjustifiably administers any poisonous or noxious drug or substance to any animal, or unjustifiably exposes any such drug or substance with intent that the same shall be taken by an animal, whether such animal be the property of himself or another	Misdemeanor
§ 1694 INSTIGATING OR ENCOURAGING DOGFIGHT	Every person who willfully or for any bet, stake or reward, instigates or encourages any fight between dogs, or instigates or encourages any dog to attack, bite, wound or worry another dog, except in the course of protection of life and property	Felony punishable by imprisonment in the State Penitentiary for not less than one (1) year nor more than ten (10) years, or a fine not less than \$2,000 nor more than \$25,000, or by both such fine and imprisonment
§ 1698 SPECTATORS	Every person who is knowingly present as a spectator at any place, building or other site where preparations are being made for an exhibition of dogfighting with the intent to be present at such preparation or fight, or is knowingly present at such exhibition	Misdemeanor

FIGURE COMPANION 1: Oklahoma animal anti-cruelty statutes.

(Source: <http://www.oklegislature.gov/osstatuestitle.html>)



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shows proof of spay/neuter. A survey of Oklahoma shelters in spring 2014 found that only 16 of the 136 shelters in the state sterilized animals before release. Another seventeen shelters required an agreement that the owner would sterilize the animal at some point. Ruth Steinberger of SpayFIRST!, who conducted the 2014 survey, states that the \$10 deposit currently required is not a sufficient incentive for adopters to spay or neuter. Steinberger also contends that another weakness of the act is the lack of legal enforcement to make the shelters comply with the law.²⁰

Oklahoma Pound Seizure

Juli Gilliam, in an article in the *Journal of Animal Law*, Vol. V, dates the beginning of modern pound seizure to the mid-1940s, when the National Society for Medical Research made efforts to enact state laws which would provide a steady supply of laboratory animals for the growing and expanding field of medical research. These laws, now commonly referred to as “pound seizure” laws, require an animal shelter to sell or give cats and dogs to Class B dealers or directly to research facilities for use in research, educational, or biomedical purposes.²¹

Oklahoma’s mandatory pound-seizure law first passed in 1951. Today, Oklahoma is the only state which legally mandates pound seizure. A few states still allow pound seizure either because state law allows for the practice or because state law does not reference the pound seizure and, therefore, allows for the practice by default, but these states do not mandate shelters to follow the practice (see **FIGURE COMPANION 2**).

It is difficult to determine the prevalence of pound seizure in Oklahoma, as the numbers of animals seized are not reported or tracked by any state agency. In 2009, Allie Phillips, an attorney who specializes in helping animals and children who are victims of crime, through the Public Policy Office at the American Humane Association (AHA), conducted a nationwide survey of use and attitudes toward pound seizure. The survey was created in hopes of garnering support for the federal Pet Safety and Protection Act of 2009, which would prohibit any research facility, including federally funded research facilities, from accepting cats and dogs from Class B dealers.²²

The survey found that none of the Oklahoma shelter employees or volunteers surveyed were aware of any shelters in Oklahoma currently providing facilities with

live dogs and cats for research. Shelter testimonials in the survey seemed to indicate the practice is decreasing in the state and may no longer actually occur. Finally, the survey also showed that shelter employees and volunteers do not believe that the public, including those individuals who relinquish animals to a municipal shelters, is aware of this law.²³ See the laboratory-animal section of this study for more information regarding pound seizure.

In 1997, while efforts to repeal the Oklahoma pound-seizure law failed to pass the legislature, the law was changed to allow municipalities to pass ordinances to opt out of the law.²⁴ Oklahoma City and Tulsa currently have ordinances banning pound seizure. In 2008 and 2009, legislation was proposed that would additionally require animal carcasses be made only available for research and would make it a crime for shelter staff to refuse to turn over deceased animals for research. Neither the 2008 or 2009 bill made it out of committee.²⁵

Oklahoma Euthanasia Law

Oklahoma Statute 4 § 501-508 outlines that euthanasia for animals “kept for pleasure” must be performed by a licensed veterinarian, certified euthanasia technician, or animal-control officer registered by the Oklahoma Bureau of Narcotics and Dangerous Drugs Control. The law states that methods of euthanasia are to be as painless as possible, as determined by the best medical and scientific knowledge and technology available.²⁶

The regulating provisions of the euthanasia law apply only to Oklahoma municipalities with populations greater than 10,000. The 2010 U.S. Census showed that only 43 of the 499 cities and towns in Oklahoma have populations greater than 10,000 people. The remaining 456 cities are not required to follow the regulations regarding painless euthanasia or the use of a professionally trained veterinarian or animal-control officer when performing euthanasia. Ruth Steinberger has also noted that the state is not currently able to inspect or verify that the 43 cities are following the policy.^{27, 28}

Oklahoma Statute Ann. 4 § 501 also allows the use of a carbon-monoxide chamber to euthanize cats and dogs older than sixteen weeks of age. The HSUS reports that Oklahoma remains one of eight states in the nation where euthanasia by gas chamber is confirmed or suspected.²⁹ (See **FIGURE COMPANION 3**.) Studies have shown that clinical death in gas

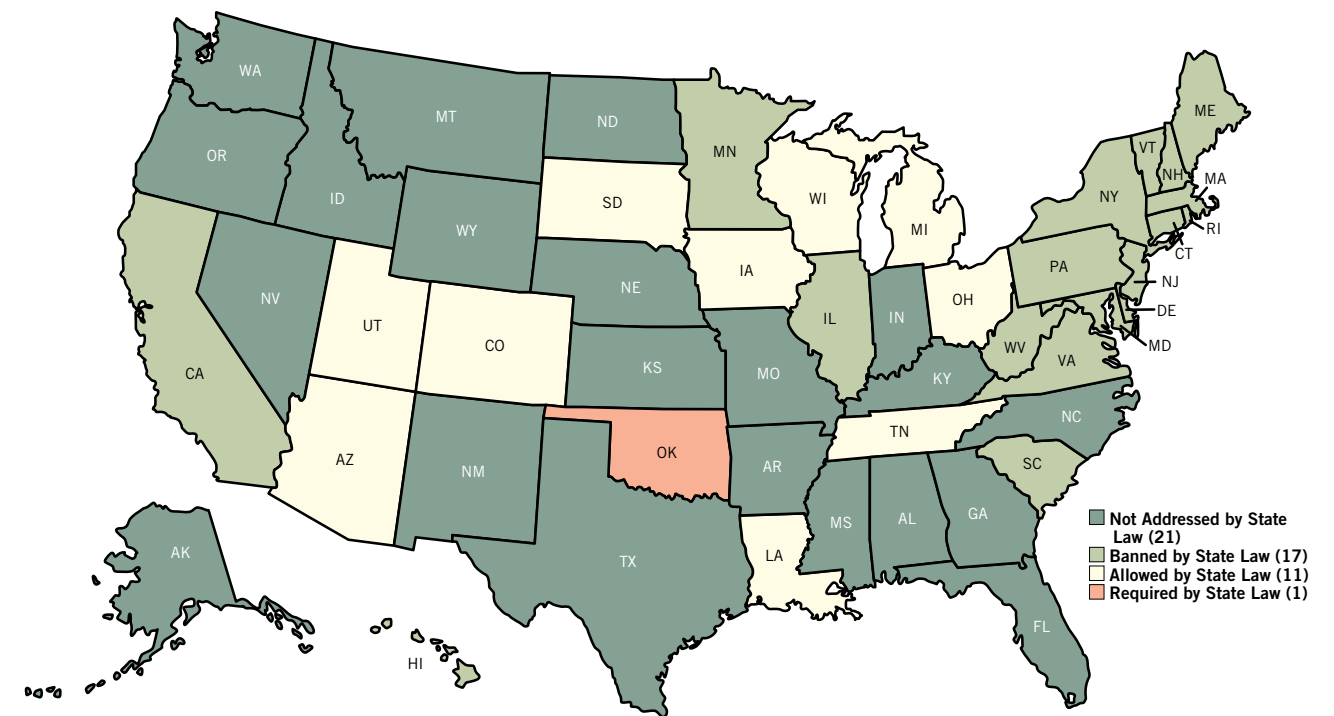


FIGURE COMPANION 2: Pound-seizure law (February 2015).

(Source: HSUS, http://www.humanesociety.org/assets/pdfs/animals_laboratories/pets_experiments/map_pound_seizure_laws.pdf)

chambers can take up to thirty minutes and that animals begin to lose consciousness and brain function only after vital organs have shut down in this process. Lethal injection, on the other hand, is documented to take only two to five minutes for clinical death and is a less stressful process for animals. A 2009 study by the North Carolina branch of the American Humane Association also found that lethal injection is less costly per animal than gas chambers.³⁰

The 2013 American Veterinary Medical Association (AVMA) guidelines noted that chambers are considered an “acceptable” form of euthanasia but are considered humane only when very specific criteria are followed. The AVMA guidelines also recommended chambers be used only as a last resort after other alternatives have been

considered. The AVMA noted, however, that some shelters in the U.S. may still be using chambers because the facilities do not have the authorized staff to administer the drugs or even access to controlled substances for lethal injections.³¹

As of September 2014, Cynthia Armstrong, Oklahoma director of the HSUS, reported that the Oklahoma cities of Broken Arrow, Shawnee, and Clinton still use gas chambers for companion-animal euthanasia. The city of Sayre has a chamber, but when asked about the chambers for this study city officials reported the facilities were used for euthanasia of skunks.³²

In 2014, Cushing city officials announced they would no longer use a gas chamber and would transition to the



“THE PUBLIC OVERWHELMINGLY agrees that the current USDA standards for dogs kept in commercial breeding facilities do not amount to humane treatment for dogs. The USDA needs to recognize this, and step up to ensure these vulnerable animals have proper care to maintain their health and well-being.” —MATT BERSHADKER, PRESIDENT AND CEO OF THE ASPCA (2015)

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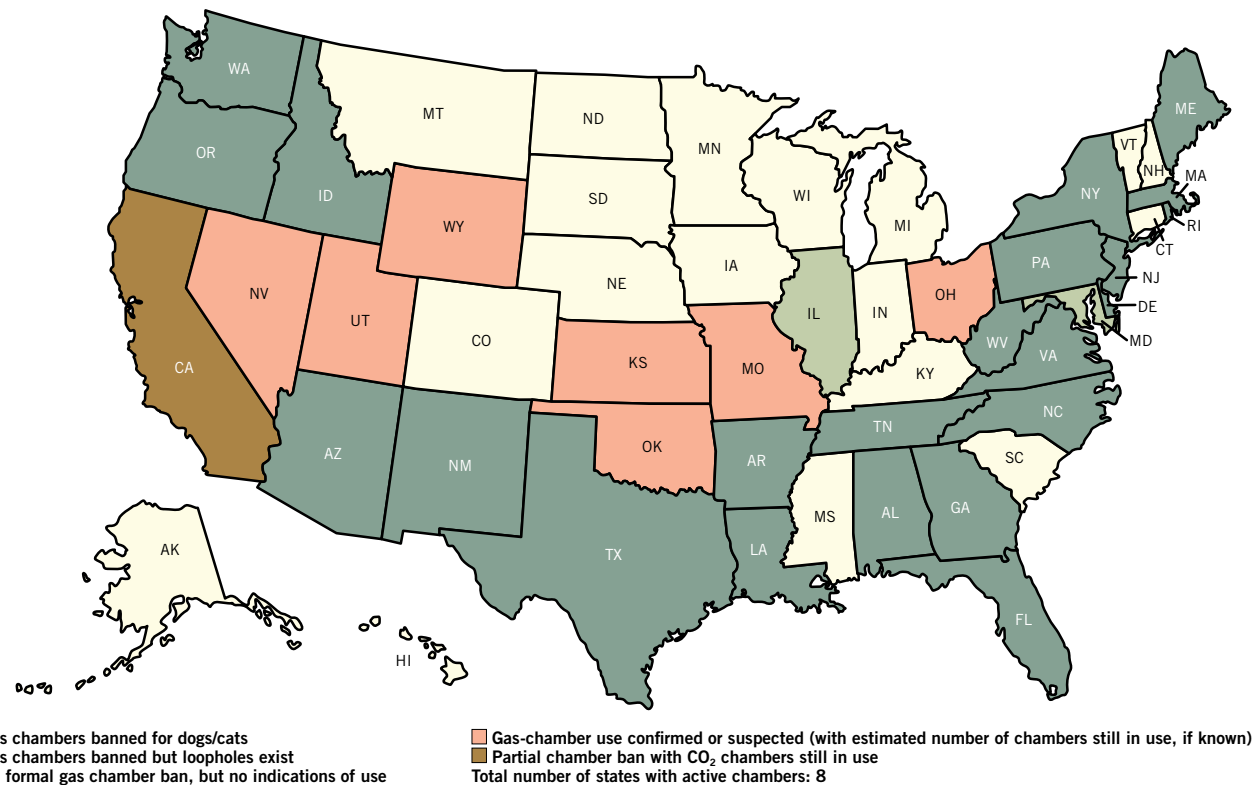


FIGURE COMPANION 3: Gas-chamber euthanasia law (October 2015).

(Source: HSUS, <http://www.humanesociety.org/animals/resources/facts/end-inhumane-gas-chambers.html?referrer=https://www.google.com>)

use of lethal injection after receiving a \$2,000 grant from the HSUS Oklahoma office. HSUS made a similar grant offer to the city of Clinton, but as of May 2015, the offer had not been accepted.³³

In February 2014, Oklahoma State Representative Brian Renegar (D-McAlester) introduced House Bill 2764 prohibiting the use of carbon-monoxide chambers for animal euthanasia. This bill died in committee.³⁴

In her interview for this study, Rose Wilson, animal-welfare superintendent for the city of Lawton, noted that charts and tables of euthanasia and shelter care numbers can be helpful, but “the real picture these figures

show me is that many animals are born either to pet owners who didn’t care or to strays that roam as feral animals, all due to the irresponsibility of humans.”

RESOURCES AND AREAS OF NEED

Commercial Breeding

As of January 2014, Oklahoma was the third-largest commercial breeding state in the nation, having approximately 165 USDA licensed commercial Class A breeders. Missouri was ranked first and Iowa second, with 558 and 208 Class A breeders, respectively.³⁵ Kathleen Summers, director of

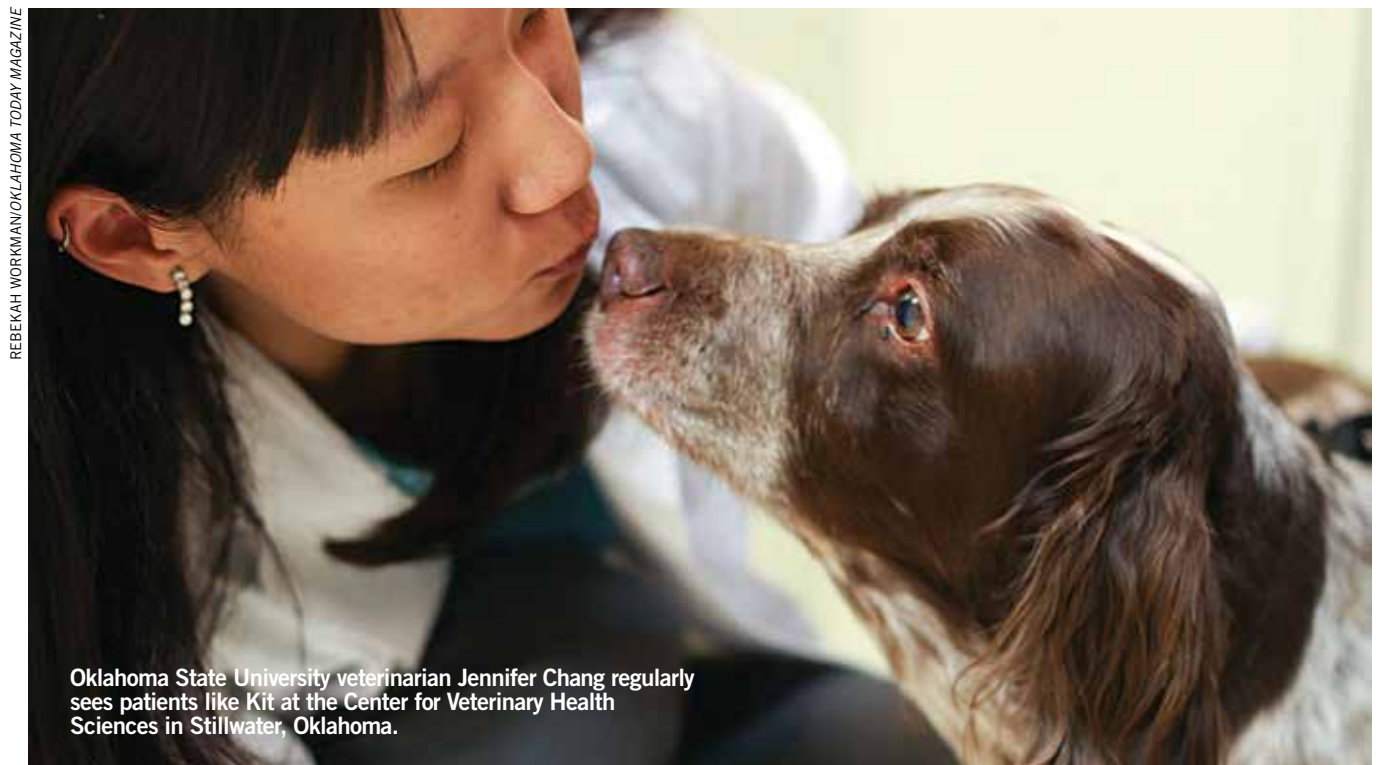
outreach and research with the HSUS Stop Puppy Mills Campaign, says, “While not all USDA-licensed commercial breeders are puppy mills, our past investigations and research have shown that the majority would fall into the puppy mill category, due to typically having large numbers of dogs that live their entire lives in small cages with very little quality of life.”³⁶ Although there is no legal definition of a puppy mill, the American Society for the Prevention of Cruelty to Animals (ASPCA) defines a puppy mill as a “large-scale commercial dog breeding operation that places profit over the well-being of its dogs—who are often severely neglected—and acts without regard to responsible breeding.”³⁷

Although some consider Oklahoma to be a large puppy-mill state due to its number of breeders, Summers asserts that Oklahoma’s Commercial Pet Breeders Act is effective at protecting animals when compared to the legislation of

other states.³⁸ For example, the ODAFF licenses and inspects commercial breeding facilities with more than eleven breeding females, while most states do not require this type of licensing. Also, Oklahoma is one of twenty-five states that have additional regulations for breeders beyond the Animal Welfare Act standards.³⁹

Unfortunately, recently reported incidents have shown it has been difficult to enforce the Commercial Pet Breeders Act in the state. In November 2013, 124 dogs were seized from an Oklahoma City breeder who had been in business for more than thirty years. Although the breeder passed the ODAFF’s inspection earlier in the year, a citizen’s complaint resulted in an investigation from Oklahoma City Animal Welfare officers (though the ODAFF can issue citations and revoke licenses, criminal investigations of breeders are conducted through local law enforcement).⁴⁰

REBEKAH WORKMAN/OKLAHOMA TODAY MAGAZINE



Oklahoma State University veterinarian Jennifer Chang regularly sees patients like Kit at the Center for Veterinary Health Sciences in Stillwater, Oklahoma.



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Shelters Statistics and Services

Oklahoma has 136 municipal animal shelters or other municipal sheltering options such as animal control.⁴¹ In the larger municipalities, such as Tulsa and Oklahoma City, designated animal-welfare departments and staff are able to document animal intake and outcome numbers. Most of the smaller communities in the state do not usually have the staff to document intake numbers.⁴²

A comparison of dog and cat intake numbers from 2013 among Oklahoma's five largest cities—Oklahoma City, Tulsa, Norman, Broken Arrow, and Lawton—shows that Oklahoma City's Animal Welfare Division took in more than twice as many animals as the next largest city, Tulsa, and eight to ten times more than each of the other four cit-

ies listed. More than 43,500 dogs and cats entered the shelter system in these five cities in 2013, and just over half of them had successful outcomes of being adopted, transferred to a rescue organization, or returned to their owners, while more than 20,000 dogs and cats were euthanized, resulting in a combined live release rate of 53 percent.⁴³ (See **FIGURE COMPANION 4**.) According to the HSUS in 2013, an estimated six to eight million animals were taken to shelters, and three to four million were euthanized.⁴⁴

The larger cities in Oklahoma track intake numbers in the shelters through the use of software. Oklahoma City, Tulsa, and Norman use Chameleon/CMS shelter-management software; Lawton Animal Welfare Division uses Multiple Options Shelter Management System; and Broken Arrow uses Shelter Pro Records Management Software.⁴⁵ John Bowman, animal-welfare supervisor of Norman's Animal Welfare Center, affirms the software helps "track how animals come into the shelter, from the owner passing away or going into the hospital, the owner being arrested, to a stray on the street ... to the reason they were euthanized, from behavioral issues to illness." Ultimately, Bowman believes, the software helps decrease the number of animals entering the shelter.⁴⁶

A review of shelter policies and procedures among Oklahoma City, Tulsa, Norman, Broken Arrow, and Lawton revealed that all the shelters except Norman have an in-house or shelter veterinarian. Of the five cities, only Oklahoma City and Tulsa currently have foster programs. Foster programs place animals in the homes of various individuals until those animals are adopted, enabling shelters or rescues to take in more animals than they have space for at the shelter facility.⁴⁷

In the *Oklahoma Shelter Animal Survey*, all shelters surveyed gave numbers estimating that there are 100,000 animals in total entering all of the Oklahoma shelter systems annually. The survey also showed, however, this number may not be accurate, as many agencies in small rural Oklahoma acknowledged they do not document or monitor animal intake or keep records of each animal's status (e.g., health, relinquishment reasons).⁴⁸ The failure to record and document animal-shelter data is considered to be a troubling issue for companion animals in Oklahoma, as it makes it very difficult to accurately track companion-animal well-being and intake or care trends among shelters.



ATTILA DUDAS/SHUTTERSTOCK

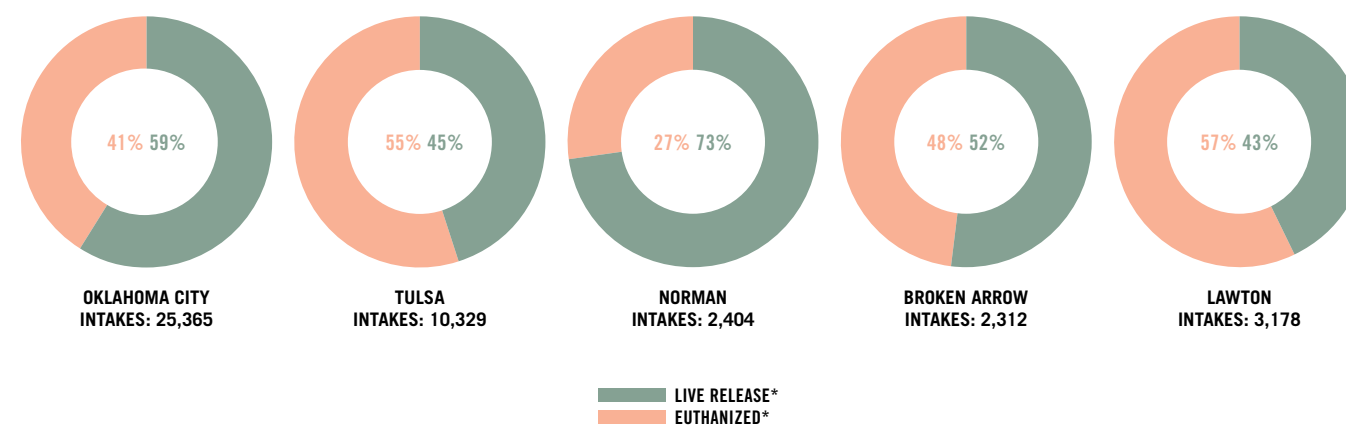


FIGURE COMPANION 4: Dog and cat live release and euthanasia rates for Oklahoma's five largest cities (July 2013-June 2014).

*Annual Live Release and Euthanasia Rates calculated by adding Adoptions + Transfers + Return to Owner divided by Total Outcomes (excluding owner-requested euthanasia for unhealthy or untreatable animals and animals that died or were lost in shelter) as defined in the *Asilomar Accords* (www.asilomaraccords.org). (Source: Interviews with staff at Oklahoma City, Tulsa, Norman, Broken Arrow, and Lawton animal-control or shelter facilities, September 2014)

Lack of Access to Services

Although it is a misdemeanor to abandon a domestic animal in Oklahoma, the *Oklahoma Shelter Animal Survey* found that more than half the state lacks access to an animal shelter or a specified location where an unwanted animal can be taken. The lack of shelters could be due in part to Oklahoma Statute Ann. 4 § 43, which prevents counties with populations under 200,000 from operating a shelter. Ruth Steinberger states that, notably, none of these three counties with populations over 200,000 actually has county shelter services available. Steinberger does note, however, that Oklahoma City has a written agreement with Del City, Valley Brook, and Choctaw to accept animals, and the city shelter will receive animals from other parts of Oklahoma County for a fee.⁴⁹

Of the remaining seventy-four counties, with populations fewer than 200,000, only three have open-access shelters that allow all county residents to drop off animals. Washington County Society for the Prevention of Cruelty to Animals (SPCA) and Carter County's Ardmore Animal Care animal shelter are actually private nonprofit organizations contracted to serve the city but are open to the county as a courtesy. In 2008, Pittsburg County opened the state's first truly county-wide shelter funded by taxpayers through a county sales tax. Pittsburg County used a bond-referendum process and public vote, rather than asking commissioners to take action on a shelter. A small tax currently supports the shelter.⁵⁰

The *Oklahoma Shelter Animal Survey* also found that approximately one-third of the 136 municipal



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shelters and animal-control agencies in Oklahoma have no point of contact, no posted phone number, no hours of operation listed publicly, and, as mentioned, often no record-keeping. Many shelter employees or volunteers stated that the shelters simply do not have the personnel to manage a software system or the financial resources to purchase a record-keeping system. Steinberger, who conducted the shelter survey and also has many years of professional experience working with spay and neuter programs, affirms that some of the small “shelters” are sometimes only made of stacked pet carriers or makeshift sheds. Steinberger also stated that, in the shelters with little funding and staff, animals can often be underfed, lack fresh water, or have little to no monitoring on weekends.⁵¹

Despite some shelter deficits in state, county, and local facilities, Oklahoma does have a number of organizations committed to animal sheltering and rescue. As of February 2014, the ODAFF, which licenses non-governmental shelters housing ten or more rescue dogs and cats, listed forty non-municipal shelters that accept animals.⁵² More than 200 Oklahoma animal-welfare nonprofits are listed on the nationwide GuideStar database, and 184 groups are listed on Petfinder, an Internet-searchable site where rescue organizations, including municipal shelters and breed rescues, may post pictures of animals available for adoption.^{53, 54} These numbers include some of Oklahoma’s municipal shelters.

Spay/Neuter Resources

After completing the *Oklahoma Shelter Animal Survey* in 2014, Ruth Steinberger concluded that “spending over a days’ earnings to spay the pet, driving hours to get to a spay/neuter program, or waiting weeks to use an intermittent program, places responsible pet care out of reach for low-income homes in Oklahoma.”⁵⁵ Steinberger’s research showed that the areas of the state that lack access to spay/neutering resources are composed of large groups of individuals and families living below or close to the poverty line. As other research has shown, low annual family income is one of the strongest predictors a pet will not be spayed or neutered.⁵⁶ **FIGURE COMPANION 5** shows Oklahoma’s county-operated shelters.

One suggestion for increasing spay/neutering in the

state, and thus improving compliance with the Dog and Cat Sterilization Act, is to establish more in-house veterinary clinics at the municipal shelters.⁵⁷ Fortunately, there are initiatives in the state already implementing this type of model. The city of Lawton, for example, converted a storage closet into a surgical room where animals are spayed and neutered. Several facilities in the state have also achieved successful pre-release sterilization numbers through cooperative agreements with area veterinarians and the Oklahoma State University (OSU) veterinary students. The Animal Resource Center (ARC) in Oklahoma City provides surgery space for veterinarians who spay and neuter animals from area shelters and local nonprofit animal-rescue groups.⁵⁸



SHERYL SALISBURY/GETTY IMAGES

“IF THERE ARE no dogs in heaven, then when I die, I want to go where they went.” —WILL ROGERS

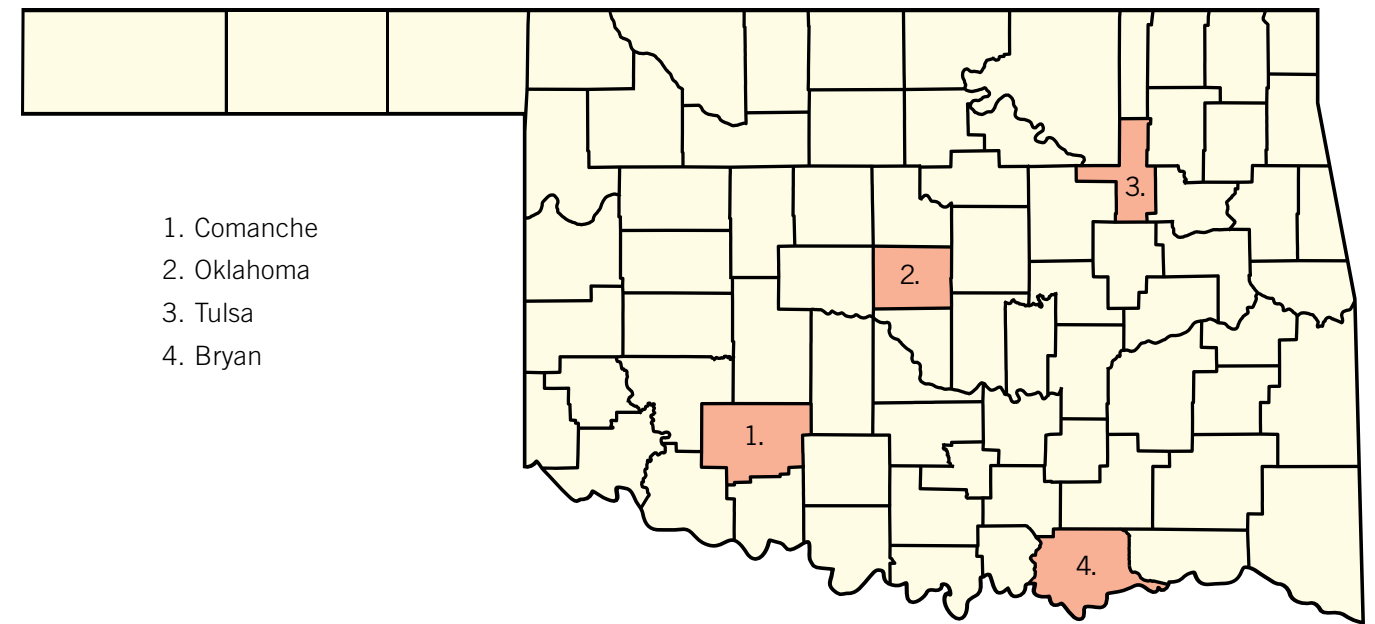


FIGURE COMPANION 5: Oklahoma county-operated stationary spay and neuter clinics.

(Source: Oklahoma Shelter Animal Survey, 2014)

Veterinary Care

Oklahoma’s school of veterinary medicine, OSU Center for Veterinary Health Sciences, collaborates with more than twenty municipal shelters and rescue groups, including Cimarron Valley Humane Society, Edmond Animal Welfare, Humane Society of Stillwater, and Washington County SPCA, to provide sterilization surgeries and other companion-animal health procedures. While benefiting area shelters, the OSU program also provides clinical and practical experience for veterinary and veterinary-technician students. In fiscal year 2013, students in these programs conducted 3,708 spay/neuter surgeries and more than 200 other medical procedures, such as tumor removal, dental extraction, and teeth cleaning. More than nine businesses work in collaboration with the OSU shelter program to provide limited vaccines and suture materials and other supplies that help minimize shelter costs.⁵⁹ Commenting on the success of the program, Dr. Jean

Sander, dean of the OSU Center for Veterinary Health Sciences, believes the program is a win-win that provides future veterinarians with educational benefit while helping some of the sheltered pets in the state.⁶⁰ As of September 2015, the Oklahoma Veterinary Medicine Association (OVMA) reported that there were 1,870 licensed veterinarians in Oklahoma.

In addition to local nonprofits that offer low-income spay-neuter services, pet owners can also apply for spay/neuter financial assistance through the Pet Overpopulation Fund, operated by the OVMA in conjunction with participating veterinarians statewide. The overpopulation fund is paid for through the purchase of “Animal Friendly” license plates, the state income-tax refund check-off program, and private donations. In 2012, the overpopulation fund brought in \$21,726, about \$15,000 less than in 2011, and issued 866 vouchers for free spay/neuter surgeries around the state. The fund also provides education about responsi-



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ble pet ownership. Only OVMA veterinarians can perform the free surgeries, and pet owners must complete an application issued through the OVMA.⁶¹

The Animal Birth Control (ABC) Project, an Oklahoma City Animal Welfare Division program, offers free sterilization for pets of Oklahoma City residents on a first-come, first-served basis. The ABC Project is funded by adoption fees collected by the Oklahoma City Animal Welfare Division. From January 2013 until July 2014, 4,544 animals were sterilized through the community spay/neuter program.⁶² Another program, Best Friends of Pets, provides spay/neuter assistance and works with more than thirty area veterinarians and serves more than thirty-four cities surrounding Oklahoma City.⁶³ In 2013, the organization reported spaying or neutering 1,237 companion animals through their Spay/Neuter Assistance Program.⁶⁴ Also, the Oklahoma Spay Network provides low-cost spaying/neutering in remote rural areas through a mobile spay-neuter unit and maintains a Web site with links that currently list more than thirty-five spay and neuter assistance programs in Oklahoma.⁶⁵

COMMUNITY INNOVATIVE PROGRAMS

Oklahoma has a hundreds of community programs that help companion animals and their owners. The Pet Food Pantry of Oklahoma City provides supplemental pet food on a monthly basis to low-income senior citizens, veterans, and homeless in the Oklahoma City, Edmond, Yukon, and Mustang areas. In January 2014, the pantry provided food for 535 pets that belonged to 206 individuals.⁶⁶ Petco, Swaim Serum Company, A1 Pet Emporium, Mann's Best Friend, and other businesses serve as drop-off sites for the Pet Food Pantry.

In 2015, the Central Oklahoma Humane Society began a three-year partnership with HSUS and PetSmart Charities to address community needs such as affordable, accessible pet care. In 2015, the Pets for Life project spayed or neutered 536 dogs and cats and provided vaccinations as needed. The program also provides pet owners with collars, leashes, and doghouses to help care for their animals.⁶⁷

Finally, in 2016, the American Humane Association, based in Washington, D.C., will begin the first of its nationwide regional expansions with an Oklahoma City base for its newest Red Star emergency-management vehicle.⁶⁸

SCOTT OLSON/GETTY IMAGES



Like Hurricane Katrina, the 2013 tornado in Moore, Oklahoma, confirmed the need for emergency-response services for animals.

RECOMMENDATIONS

While Oklahoma has several programs, organizations, and laws that can effectively protect companion animals, it has room to develop better practices to protect pets throughout the state. After we analyzed the information concerning the status of Oklahoma companion animals, our findings indicate a number of key areas where Oklahoma can improve in companion-animal welfare.

Increase services for most of Oklahoma. Currently, many people in rural areas have no access to low- or no-cost spay/neuter services or animal shelters. Due to this limited accessibility to care, many unwanted animals are at higher risk for suffering from abuse, neglect, abandonment, and cruelty.

Encourage municipal governments to adopt and improve local shelters and ordinances. This is a necessary first step to making improvements within the shelter system. If cities are not willing to make a priority of caring for animals in their communities a priority, the abilities of individual staff members to make a difference is greatly limited.

Track basic information in shelters. Many of the shelters or care facilities in the state do not accurately keep records of intakes, hold times, and disposition of animals entering the shelters and care facilities. The tracking of this information increases accountability among shelters and care facilities and aids in better understanding of where the shelter systems are succeeding and where they are lacking in quality of care.

Require regulated minimum care standards and inspections for all municipal shelters. Recent legislation requires companion-animal rescue groups housing ten or more animals to be inspected by the ODAFF and be subject to the agency's established minimum-care standards. Expanding the regulation to municipal shelters will improve the care

and record-keeping related to animals entering those shelters. Tracking of intake numbers, adoptions, etc., increases accountability among shelters and allows stakeholders to support and identify (and then find solutions for) problems facing shelters across the state.

Enforce the 1986 Dog and Cat Sterilization Act through on-site surgeries or agreements with area veterinarians. Prohibiting the release of non-spayed or neutered animals—unless a contract has been signed by the adopter agreeing to have the animal sterilized—would be most effective at reducing unwanted litters from pets adopted through shelters. The current \$10 minimum deposit for contract spaying/neutering is too minimal to effectively enforce spaying and neutering.

Remove the pound-seizure law in its entirety (Oklahoma Statute Title 4 § 394) as well as the state statute that limits sheltering to counties with populations over 200,000. Educating the public about the implications of such laws would likely garner wide support for these sensible changes.

Prohibit the use of gas chambers for the euthanasia of shelter animals. While this practice is already being phased out, legislation would strengthen the eradication of that practice and prevent its return.

Strengthen the standards of care in commercial pet-breeding facilities.

Create an animal-abuser registry. This type of system would track convicted animal abusers and prevent them from owning or managing any animal. Legislation of this sort also assists law enforcement in keeping animals away from known abusers.

Encourage on-site pet sheltering at domestic-violence and homeless shelters for those staying at the facilities.

Make available mental-health treatment for children who abuse or witness animal abuse.

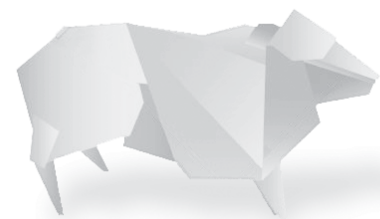


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9. Pariser, "Brief Summary of the Laws Regulating Rescue and Foster Care Programs for Companion Animals," <https://www.animallaw.info/intro/laws-regulating-rescue-and-foster-care-programs-companion-animals>.
10. Jeanne Snider, e-mail communication, February 14, 2014.; *Oklahoma Statute Title 21 Chapter 67 § 1680.4: B. Any peace officer or animal control officer may: 1. Specify terms and conditions by which the owner or keeper may maintain custody of the animal at the expense of the owner to provide care for the animal. The specifications shall be counter-signed by the owner or keeper of the animal. Provided, however, that violation of the custody agreement of the animal may result in the impoundment of the animal; or 2. Obtain a court order to take custody of any animal found neglected or cruelly treated by removing the animal from its present location.*
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KEVIN HORAN/GETTY IMAGES



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The use and ownership of livestock and farm animals are firmly rooted in Oklahoman culture, economy, and history. Before statehood, cattle were driven across the state’s grasslands to provide a steady supply of beef to the East Coast, and small farms dotted the landscapes of the Oklahoma and Indian Territories. Today, agriculture represents a 1.1 percent industrial share of Oklahoma’s economy, falling behind mining, leisure and hospitality, and manufacturing.¹ In 2014, 77 percent of Oklahoma land was considered farmland (the same percentage as Texas and Illinois), and 95 percent of the 80,245 farms and ranches in Oklahoma were family-owned. The market value of agriculture products sold was \$7.1 billion.² Although the land continues to be owned by families, the way in which agriculture is practiced has transformed over the past few decades. Many in the livestock industry contend that the industrialization of farming is essential to feed a growing global populations and is rooted in animal science, while a growing sector of the marketplace and those in the animal-protection community believe factory-farm practices are harmful to livestock and human well-being and the environment.

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INDUSTRY HISTORY

Over the last few centuries, technology and applied science have maximized the United States production of affordable animal products for the ever expanding world market. In the last sixty years, the vertical coordination of production, marketing, and processing in agriculture has efficiently and drastically decreased the land, feed, and labor needed to produce large amounts of meat, dairy, and egg products. The swine, beef, and poultry industries have shifted toward a concentrated system of fewer farms with a much high number of animals per operation. Moreover, these structural changes of animal production have standardized the daily care of animals.

FARMING LAWS

Each year, the U.S. and Oklahoma agriculture censuses record both livestock populations and practice standards for the livestock industries. Slaughter facilities and processing plants in Oklahoma are regularly inspected by the United States Department of Agriculture (USDA) Food Safety and Inspection Service (FSIS) and also by the Oklahoma Department of Agriculture, Food, and Forestry (ODAFF). The close monitoring of livestock facilities allows for the traceability and disease control of U.S. food supplies.³ Because livestock are part of the consumer marketplace, animal slaughter and transport is more heavily regulated and monitored than other sub-groups discussed in this report. (FIGURE LIVESTOCK 1)

Oklahoma has the oldest state anti-corporate farming law, originally added to the state constitution in 1907. Historically, anti-corporate farming laws restricted corporate involvement in agriculture production in order to preserve and protect family farms.⁴ In 1991, the Oklahoma legislature passed State Bill 518, removing corporate exemptions from livestock ownership and allowing large national and international companies to own and manage swine operations, feed mills, and processing facilities in the state. Those in favor of passing of the bill, including Tyson Foods Inc., asserted that the changes could provide great economic benefit to the state.⁵

Modernization of agricultural practices and changes to Oklahoma law have allowed for and led to an increase in the number of animals involved in the livestock industry, from hundreds to thousands at each farming operation. Although 95 percent of farmland and ranch land in Oklahoma is family-owned, a small percentage of larger farming operations own a majority of the livestock market in Oklahoma.⁶

CAFOs AND AFOS

In 1976, the Environmental Protection Agency (EPA) legally defined Animal Feeding Operations (AFOs) and Concentrated Animal Feeding Operations (CAFOs) in response to the dramatic growth in the number of animal units per U.S. farm. AFOs, sometimes referred to as feedlots, are facilities where animals are confined and fed for at least forty-five days per twelve-month period and where crops, vegetation, forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility. CAFOs are defined as AFOs that feed a specific number of animals for more than forty-five days in a twelve-month period.⁷ These type of operations, because of their size, number of animals, and business structure of the facility, have also been referred to as “factory farms” or Industrial Farm Animal Production.⁸ In Oklahoma, CAFOs and AFOs may seek coverage under an appropriate state license or the federal CAFO permit. Some operations seek both coverages.

Legally, states may also define CAFOs in other ways. In Oklahoma, CAFOs are defined in Oklahoma Statute tit. 2 § 1.20-41 as operations where animals have been, are, or will be stabled or confined and fed or maintained for a total of ninety consecutive days or more in a twelve-month period. Under this statute, CAFOs hold more than (a) 1,000 slaughter and feeder cattle, (b) 700 mature dairy cattle, (c) 500 horses, (d) 10,000 sheep or lambs, (e) 55,000 turkeys, (f) 5,000 ducks, or (g) 1,000 animal units with pollutants discharged into waters of the state. Poultry facilities are considered a CAFO if they house more than (a) 100,000 laying hens or broilers, if the facility has continuous overflow watering, or (b) 30,000 laying hens or broilers, if the facility has a liquid manure system. Poultry facilities that confine large numbers of birds for at least forty-five days and produce over ten tons of poultry waste, but do not discharge the waste into a liquid manure system, are defined by Oklahoma Statute tit. 2, § 10-9.1 as Poultry Feeding Operations.⁹

It should be noted that swine are not included in the definition of a CAFO. Oklahoma swine operations are defined in Oklahoma Statute tit. 2 Chapter 1 §20-3. The basic term “swine-feeding operations” is defined as a lot or facility where swine have been, are, or will be stabled or confined and fed or maintained for a total of ninety consecutive days or more in a twelve-month period, with the same regulations regarding crops, vegetation, and post-harvest residues. A concentrated swine-feeding operation (CSFO) is defined as a licensed managed feeding operation (LMFO) or a swine-feeding operation which confines either 750

	VALUE OF RECEIPTS	PERCENT OF STATE TOTAL FARM RECEIPTS
CATTLE AND CALVES	\$3.6 billion	50.5%
HOGS	\$914 million	13.0%
WHEAT	\$758 million	4.9%
BROILERS	\$710 million	10.1%
HAY	\$170 million	2.4%

FIGURE LIVESTOCK 1: Top Oklahoma agricultural commodities (2012).

(Source: Oklahoma Agriculture Magazine)

swine each weighing approximately fifty-five pounds, 3,000 weaned swine each weighing under fifty-five pounds, or 300 swine animal units with pollutants discharged into waters of the state through an artificially constructed ditch, flushing system, or other similar artificially constructed device, or with pollutants discharged directly into navigable waters outside of or pass over or through the facility.¹⁰

The term LMFO is a swine-feeding operation primarily using a liquid swine-waste management system, where swine are primarily housed in a roof-covered structure and which has more than the following number of swine: (a) 2,500 swine weighing over fifty-five pounds, (b) 10,000 weaned swine weighing under fifty-five pounds, or (c) any combination of 1,000 animal units.¹¹

Poultry-feeding operations (PFO) are defined in Oklahoma Statute tit. 2 § 10-9.1 and include farms that confine poultry birds for at least forty-five days or more in any twelve-month period and produce over ten tons of waste per year.

Facilities in Oklahoma which meet statutory criteria can apply to be a licensed CAFO or PFO, and the license must be renewed each year. Swine operations are typically concentrated in Oklahoma’s northwestern and southeastern counties, while PFOs are primarily located in the eastern counties in Oklahoma, along the Arkansas border. The ODAFF reports that Oklahoma has approximately 266 licensed CAFOs and LMFOs as of November 2015.¹² (FIGURE LIVESTOCK 2)

It should be noted that, in Oklahoma, individuals who are

licensed to manage PFOs and CAFOs are required to attend educational courses on proper waste disposal, record-keeping, and handling procedures. These operations must also submit and maintain a current Nutrient Management Plan to ODAFF when applying for a license.

Most CAFO and PFOs are vertically integrated, in which a corporation will supply a producer with animals, feed, and medications for animal care. The farmer manages the daily operations on the farm, but the corporation retains ownership of the animals. In theory, the contractual arrangement places the financial risks of feed and livestock market-price volatility as well as the start-up costs for farm production with the corporation, therefore providing a benefit to small-scale farmers. However, as the number of animals increase on a farm, the farmer—not the corporation—takes on the liability and costs associated with maintenance, manure disposal, and in some situations carcass disposal.¹³

The use of CAFOs in the U.S. has garnered public objection because of the link between environmental and public health problems and the farm’s high animal concentrations. Individuals have voiced concern regarding the water and air contamination from manure, the greenhouse gases produced by the animals, and the antibiotic-resistance microbes created from use of antibiotics on animals, all because they are held in concentrated numbers.¹⁴

In response to the public’s concern regarding large swine farms in the state, the Oklahoma Legislature passed House



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Bill 1522, known as the Oklahoma CAFO Act, in June 1997. This act amended the Oklahoma Feed Yards Act and stiffened the ODAFF's Agricultural Environmental Management Services of the state's CAFOs that have more than 2,000 animals. Then in 1998, Oklahoma Senate Bill 1175 made substantial amendments to the Oklahoma CAFO Act and put more measures in place to ensure that hog waste would not contaminate water supplies. The law also implemented a swine animal unit fee that was intended to supplement the cost of regulating the swine industry.¹⁵

MODERN PRACTICES

CAFOs today use highly monitored housing systems—each of which will be explained in the individual species sections—that are structured to ensure that animals receive adequate health care, water, housing, and feed. These housing systems attempt to balance the management of large numbers of animals, the safety of farm workers, the protection of the environment, and efficient and profitable production.

Concentrated housing systems have been implemented alongside the industrial use of such practices as de-beaking chickens, tail docking cows, battery cages for chickens, and placing sows in farrowing and gestation crates. Those who defend these practices contend that current industry standards were developed through years of scientific research on the most efficient and humane ways to raise livestock. The advocates state that research has shown, for example, that sow stalls (or crates) reduce aggression, injury, and competition for resources among sows while allowing farm managers to address sows' nutritional and medical needs. Likewise, battery cages should increase hygiene and lower the risk and spread of disease.¹⁶

Opponents to current industry practices have voiced concerned and demonstrated that the use of crates and cages causes undue stress to confined animals. Animal-welfare groups also state that confined housing restricts the natural behaviors of animals, specifically the rooting and social behaviors in pigs and the nesting, perching, and dust-bathing behaviors in laying hens.¹⁷

Corporations have recently responded to public criticism by requiring their contract farmers to make costly handling, housing, and management policy changes at the farming facilities. In 2014, Tyson, a large corporate chicken producer that contracts with several Oklahoma farmers, issued recommendations to its pork suppliers to discontinue manual

blunt-force trauma as a primary method of euthanasia and to implement use of pain medications for tail docking and castration, install video monitoring in sow farms, increase the use of third-party audits, and improve and increase pregnant-sow living space at their facilities.¹⁸

Responding to Tyson's recommendations, the National Pork Board contends that, as supported by the American Veterinary Medical Association and the American Association of Swine Veterinarians, there are several proper ways to care for swine hogs. The board also noted that currently there are no Federal Drug Administration drugs approved for pain mitigation used in the pig industry. Moreover, the organization noted that video monitoring is only one tool that can be used to improve the welfare of swine on farms. The board stated that “what really matters is the individual care given to each pig” to ensure the well-being of the animals in the industry.¹⁹

In 2011, the Pew Commission on Industrial Farm Animal Production released its landmark report, which examined the use of industrial agriculture in four primary areas: public health, the environment, animal welfare, and rural communities. “The Commission looked at the issue of animal welfare from both a scientific and an ethical point of view,” states the executive summary. The Pew Commission's recommendations called for phasing out and then banning non-therapeutic use of anti-microbials, improving disease monitoring and tracking, improving regulation, phasing out intensive confinement, increasing competition in the livestock market, and improving research in animal agriculture (including transparency in funding sources).²⁰

SLAUGHTER FACILITIES

In the early 1900s, large, centralized slaughterhouses and processing plants were mostly unregulated and unmonitored by government agencies. Reports describe early slaughterhouse practices that were both cruel to animals and unhealthy for plant employees and the consumer, as famously described in Upton Sinclair's *The Jungle* (1906).

In 1906, the Meat Inspection Act began federal regulation of food safety in the meat industries. However, it was not until the Humane Methods of Livestock Slaughter Act of 1958 that federal policy began requiring and regulating the humane treatment of livestock in slaughterhouses and processing facilities. A notable part of this act was the requirement that animals must be unable to feel pain (i.e., be unconscious) when killed. USDA approved methods of ren-

dering an animal unconscious include carbon-dioxide gas, captive bolt stunner, gunshot, and electrical stunning.²¹

Since 1958, slaughter facilities must be regularly checked by program inspectors for humane handling, signs of disease in the animals and animal products, and signs of inefficient or broken equipment that could cause inhumane slaughter practices.²² Some plants may also have periodic third-party audits of their facilities. Current USDA regulations for slaughter facilities specify how livestock must be cared for in transportation vehicles, and how to handle disabled livestock, and outline practices to improve the safety and working conditions of slaughterhouse employees. Although poultry operations are inspected by the USDA and subject to the Poultry Products Inspection Act, chickens, turkeys, and other birds are excluded from the Humane Slaughter Act of 1958. Currently, only birds bred for research are covered by the Animal Welfare Act (AWA).²³

In May 2015, the World Trade Organization (WTO) ruled that the U.S. country-of-origin label (COOL) for meat violated U.S. obligations to WTO. In June 2015, the U.S. Congress repealed beef, pork, and chicken from the COOL statute. In addition, Congress amended the Agricultural Marketing Act (7 U.S.C. §1621 et seq.) requiring the USDA to establish a label designation that enables meat processors to voluntarily use a U.S. label for beef, pork, and chicken from livestock exclusively born, raised, and slaughtered in the United States.²⁴

Oklahoma has both federally and state-inspected slaughter and processing facilities. Federally inspected plants sell meat products across state lines, while state-inspected plants can sell meat products only within the state. Oklahoma has relatively few federally inspected and state-inspected slaughter plants compared to the surrounding states.^{25,26} (See **FIGURE LIVESTOCK 3**.) The Talmadge-Aiken (TA) facilities in the state, known as Federal-State Cooperative Inspection Plants, are considered federal facilities and can sell across state lines, but the USDA contracts with state agencies to conduct the federal inspections. As of spring 2015, Oklahoma had nine TA plants, in Stratford, McAlester, Oklahoma City, El Reno, and other Oklahoma cities. There were twenty-four state-inspected plants. The state also had approximately fifty custom exempt plants that slaughter animals and process meat.²⁷ Custom exempt facilities process meat that cannot enter the commerce system and is generally kept by the animal's owner for personal consumption. While state-inspected slaughter

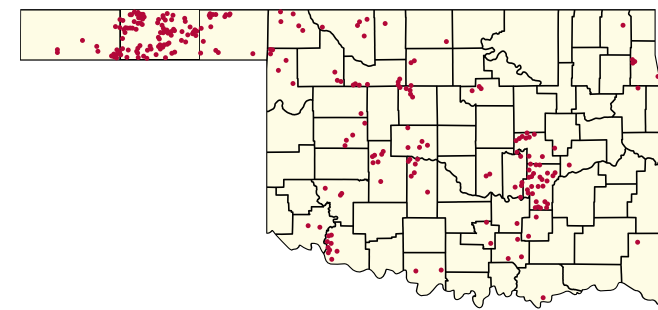


FIGURE LIVESTOCK 2: Oklahoma licensed CAFOs (2015).

(Source: ODAFF-Agricultural Environmental Management Services)

plants typically have fewer animals, federally inspected plants are classified as very small (less than 10 employees), small (1 to 499 employees), or large (more than 500 employees).²⁸ **FIGURE LIVESTOCK 4** shows Oklahoma slaughter plants in 2013.

Slaughter facilities that violate statutes of the Humane Slaughter Act face penalties ranging from noncompliance records for less serious offenses to suspension of plant operations for more egregious offenses. In 2013, Seaboard Foods in Guymon was issued a noncompliance record when a hog fell from a trailer. Also in March 2013, a slaughter plant in Big Cabin was served a Notice of Suspension for use of a T-post to push feral hogs out of a trailer and for using a shovel to move the animals from a holding pen to a knock box (a device that holds the animal while being rendered unconscious).²⁹

Federal enforcement reports are issued quarterly and are available online through the USDA Food Safety and Inspection Service Web site. A review of the most recent USDA reports indicated that Oklahoma slaughter plants have a fairly high level of compliance with USDA regulations. It should be noted that some have questioned the ability of the USDA to adequately regulate the industry. In an article for the *Los Angeles Times*, a USDA inspector, who asked to remain anonymous, stated that “the agency [USDA] did not have the adequate staff and resources to enforce multiple regulations on meat production given workers' efforts to dodge oversight.”³⁰

CONSUMER DEMAND

Since the 1990s, consumer awareness of the humane treatment of animals in the food industry has led to demands for transparency in food-production, not only in terms of animal



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welfare but also in decreasing the use of antibiotics, hormones, and pesticides.³¹ Some consumer-behavior surveys find that consumers are willing to pay more for humanely raised animal products but other national studies report that those consumer preferences for humanely raised and processed animal products are not reflected in their purchasing behavior.^{32, 33}

Dr. Bailey Norwood, agricultural economics professor at Oklahoma State University (OSU), states that though consumers are generally disconnected from the methods used to raise, process, package, and transport the products they buy, the consumers still demand more transparency in the food system. A 2012 survey by the Humane Research Council found that 74 percent of U.S. adults surveyed responded that the welfare and protection of animals raised for food was “very” or “somewhat” important to them.³⁴

Norwood contends that as more information is published on animal-welfare topics, then “animal welfare will continue to be included in purchasing decisions... [because] ultimately, it is consumers, not farmers, who decide how farm animals are raised.”³⁵ Norwood summarizes the ongoing discussion between the consumer marketplace and the farming industry:³⁶

When people’s romanticized notions of an agrarian lifestyle meet with the realities of the modern industrial farm, the result is often a plea for a return to antiquated production methods. But if consumers are disenchanted with the way farm animals are now raised, farmers are mystified that those so disconnected from production agriculture presume to know so much about how to run a farm.

The food industry has made attempts to meet the expectations of the consumer. As Tyson stated in a 2014 letter to its hog producers, “We’re trying to balance the expectations of consumers with the realities of today’s hog farming business.”³⁷ As noted earlier, a growing, recent trend among national fast-food chains—including McDonald’s and Oklahoma-based Sonic Drive-in—is to publicly state humane treatment changes to animal practices their producers must make.

At all levels of production, from third-party auditing and assessment programs to humane certification programs on CAFOs, animal-welfare policies and guidelines have developed to reflect a more “humane” animal product or at least the per-

ception of such a product. Professional Animal Auditor Certification Organization, IMI Global’s Humane Handling verification, and Verified Beef’s Cattle Care and Handling program are organizations that offer training and/or certification in humane handling and slaughter in the meat industry.³⁸ Dr. Temple Grandin has also developed species-specific handling standards that measure animal stress through behavior and vocalizations and the efficacy of tools to manipulate the animals during production, including electric prods and stunning mechanisms.³⁹ Many of her standards have been adopted across the nation.

In 2013, the USDA issued new humane handling requirements for companies that supply meat to school-lunch programs and other federally assisted nutrition programs. The new requirements required suppliers to have an internal steering committee accountable for animal handling within the organization, to implement an employee-training program based on the American Meat Institutes’s humane handling guidelines, and to provide training in humane handling practices at least once a year for each designated employee.⁴⁰

Third-Party Humane Food Labeling

While some food labels are controlled by government regulation (i.e., organic foods), others are unregulated and not subject to standardization. Terms such as “free range” and “cage-free,” though often seen in the grocery store, may currently be used without government approval or audit. In May 2014, the Animal Welfare Institute submitted a rule-making petition to the USDA to require independent, third-party certification of humane and sustainable claims:⁴¹

	FEDERALLY INSPECTED SLAUGHTER PLANTS	STATE-INSPECTED SLAUGHTER PLANTS
OKLAHOMA	8	19
TEXAS	47	51
MISSOURI	36	26
KANSAS	26	38

FIGURE LIVESTOCK 3: Regional and state slaughter plants (2014).

Source: ODAFF; Missouri Department of Agriculture; Kansas Department of Agriculture; USDA Livestock Annual Summary 2014

INSPECTION LEVEL	OKLAHOMA: NUMBER OF FEDERALLY OR STATE-INSPECTED SLAUGHTER PLANTS	NUMBER OF INHUMANE TREATMENT/SLAUGHTER VIOLATIONS (2013)
FEDERALLY INSPECTED, INCLUDING TALMADGE-AIKEN*	17	2
STATE INSPECTED**	19	0
CUSTOM-EXEMPT**	39	0

FIGURE LIVESTOCK 4: Slaughter plants in Oklahoma (2013).

(Sources: * USDA Food Safety and Inspection Service; ** Oklahoma Department of Agriculture, Food, and Forestry)

AWI found that...over 80 percent of the label claims were backed by no supporting evidence whatsoever. This lack of government oversight allows for the use of deceptive labels—confusing consumers and threatening the livelihoods of higher-welfare farmers who have earned the right to use these claims.

Over the past several years, national third-party humane auditing programs were created to reassure consumers that certain humane standards in meat, dairy, and egg production are met. Food-producer participation in these certification programs is voluntary. Each humane food-label certification program has specific requirements for food producers, including space and housing, animal access to outdoors and pasture, and husbandry practices.⁴² Some certification programs also require yearly inspection, the maintenance of detailed animal records, and refraining from use of antibiotics and steroids. Animal Welfare Approved reports that, as of winter 2015, three slaughter facilities in Oklahoma meet its certification standards. Two food programs, Animal Welfare Approved and Certified Humane, also require specific slaughter practices.⁴³

The Double R Farms in Asher, Oklahoma, owned by Patrice and Rory Whittle, is an Animal Welfare Approved operation. Double R Farms sells beef, pork, poultry, and eggs through the Oklahoma Food Cooperative, at farmer markets, and directly to the consumer. Ms. Whittle states they first learned of the certification program through the

organization’s egg cartons. Animal Welfare Approved cartons are sold to producers at prices below the market rate and have the organization label as well as space reserved for the farmer’s label. Each carton includes an insert describing why Animal Welfare Approved eggs benefit people, chickens, and the environment in general. According to Mrs. Whittle, the labels and cartons made a substantial increase in their egg sales and led the Whittles to apply for other livestock certifications on their farm.⁴⁴

As of summer 2014, more than 1,500 farms nationwide were working on corrective actions to become Animal Welfare Approved. Andrew Gunther, program director of Animal Welfare Approved, states:⁴⁵

Animal Welfare Approved (AWA) was established in 2006 as a market-based solution to meet the growing consumer demand for high-welfare, sustainable food....Our objective is to make AWA a household name and to change the way we farm animals for the better of us, the animals, and the planet.”

As of October 2015, the Oklahoma Food Cooperative—a cooperative that sells directly from producers to members—had around thirty-six producers that sold eggs, dairy, or meat products. Four of those producers have Animal Welfare Approved certifications, two are Global Animal Partnership certified, and one is USDA certified organic. One producer is USDA certified organic as well as Animal Welfare Approved.⁴⁶



LIVESTOCK *Beef Cattle*



Oklahoma National Stockyards cattle auction in Oklahoma City.

DANITA DELIMONT/GETTY IMAGES

WHERE THEY ARE FOUND

The cattle industry is Oklahoma's leading source of agricultural income. With 4.2 million head of cattle, Oklahoma ranks fifth in the nation in cattle and calf production (**FIGURE LIVESTOCK 5**). Oklahoma's cattle industry was hit hard by the 2012 drought with a drop in herd numbers in 2013.⁴⁷ By January 2014, inventory numbers showed a 2 percent increase in Oklahoma.⁴⁸

Unlike hog and poultry operations, which tend to be located in concentrated areas of the state, large-scale cattle facilities are distributed by individual producers across the state. Approximately ninety percent of Oklahoma cows are beef cows—cattle raised for meat production.⁴⁹ Oklahoma has around 51,000 beef farms and ranches.

BACKGROUND

Cattle take several different routes from birth to the consumer in the U.S. cattle market. Some cattle begin on cow-

calf operations where calves nurse with their mother for six to ten months. Calves are then weaned and fed hay, grain, or grass. If the cow is a female, she is either sent to slaughter or retained for breeding. Most steers—castrated male cattle—are sent directly to slaughter. Only a handful of intact males are kept as breeding bulls.⁵⁰

Another route of cattle production is stockers and backgrounders. In this system, calves are weaned and sold to stocker producers to increase the weight of calves and prepare the animals for feedlots and market. Because newly weaned and transported calves are susceptible to respiratory and other diseases, cattle finishers—feeding operations that feed cattle to meet slaughter weight—are sometimes reluctant to purchase freshly weaned calves.⁵¹

Calves are typically transferred to feedlots between twelve-to-eighteen months of age where they then spend up to six months to gain weight before slaughter.⁵² Cattle are grouped into pens of 100 to 125 animals at the lots.

“PEOPLE ARE ALWAYS looking for the single magic bullet that will totally change everything. There is no single magic bullet.” —TEMPLE GRANDIN

Most Oklahoma feedlots are found in the western parts of the state.

According to the USDA definition, “grass-fed” cattle consume only grass during their lifetime, with the exception of milk prior to weaning.⁵³ This type of cattle takes three to four years longer to reach target market weight, and the extra time increases the costs of raising the animal.⁵⁴

Once cattle at feedlots or on the pasture reach market weight of 1,200 to 1,400 pounds and around eighteen to twenty-two months of age, they are taken to slaughter facilities.

CURRENT LAWS & POLICY

In 1906, the U.S. Congress enacted the Pure Food and Drug Act and the Federal Meat Inspection Act to regulate the production and packaging of meat. The USDA is the government agency commissioned with enforcing the regulations for the meat industry under these acts. Today, the USDA regulates a system called the Hazard Analysis and Critical Control Point (HACCP) program, where individual meat-packing factories develop their own safety standards and the USDA oversees the regulation of those established standards at each facility. By creating the standards for safety on-site, the HACCP attempts to identify any issues or problems that are specific to each facility.⁵⁵

Facilities that process beef cattle must also follow the Humane Slaughter Act of 1958. A part of this act is the requirement that cattle be rendered unconscious before death, typically through the use of a captive bolt gunshot to the forehead.⁵⁶

The U.S. Food and Drug Administration's (FDA) Center for Veterinary Medicine regulates and approves all drugs and ingredients that are allowed to go into animal feeds.⁵⁷ The beef industry is also regulated through government policies on food safety and mandatory price reporting.⁵⁸

OVERSIGHT GROUPS

The Modern Beef Production Fact Sheet, published by the Cattlemen's Beef Board and the national Cattlemen's Beef Association, states that “proper animal care is the responsibility of everyone in the beef production chain.”⁵⁹ Dr. Michelle Calvo-Lorenzo, former assistant professor of livestock well-being and environmental specialist for the animal-science department at Oklahoma State University

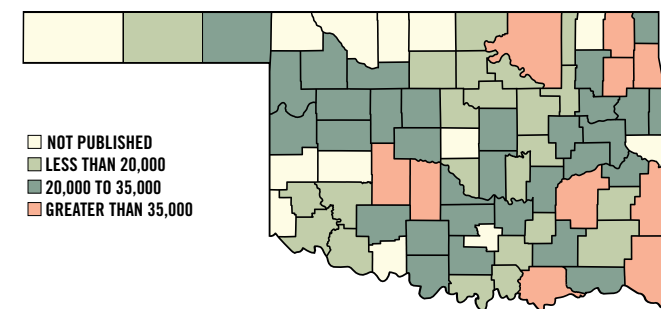


FIGURE LIVESTOCK 5: Oklahoma beef cattle inventory (January 1, 2013).

(Source: Oklahoma Agricultural Statistics 2014, USDA-NASS, ODAFF)

(OSU), states that most Oklahoma producers go through a certification process—conducted by an outside auditing organization such as IMI Global and Verified Beef—to learn how to better care for their animals. Calvo-Lorenzo believes that most consumers are probably unaware that producers often do more to promote animal well-being and prevent undue suffering. Heather Buckmaster, executive director of the Oklahoma Beef Council, summarizes the initiative of the producers to create a respected product:⁶⁰

Cattlemen and women...farmers and ranchers have invested millions of their own dollars to develop and implement advances in animal care, handling practices, and guidelines that have been widely adopted by the industry. These advancements have led to major improvements in cattle well-being.

Since the 1980s, the Beef Quality Assurance (BQA) program provides guidelines and education for beef producers to increase consumer confidence in industry production practices and ensure the safety and quality in beef products. While the program originally focused on detecting drug residues in beef, BQA now includes suggestions for husbandry practices, such as understanding cattle flight zones and cattle responses to noises and distractions. Approximately 95 percent of Oklahoma beef producers are BQA-certified.⁶¹

The Oklahoma Beef Council provides members with local training opportunities on current industry and



LIVESTOCK *Beef Cattle*

animal research, including several seminars on low-stress animal handling and working with—not against—the instincts of cattle.⁶²

WELFARE ISSUES

Pain Alleviation

Because calves are often dehorned, castrated, and branded without anesthesia or pain relief, pain alleviation for these practices has been identified as a welfare concern in the beef industry. An article in *Animal Frontiers* (July 2012), outlining pain-control management of cattle, states that pain control “is considered one of the most important welfare priorities in livestock production today. This is particularly true at a time when public scrutiny regarding animal production and care is at a historical high.”⁶³

Castration of male calves is a common herd-management practice in the beef industry and is employed to reduce aggression and injuries as well as improve meat quality.⁶⁴ Beef-cattle castration is typically accomplished through physical, chemical, or hormonal methods, all of which can cause acute pain. Surgical castration is the most common method of castration in the U.S.⁶⁵

In 2009, an American Veterinary Medical Association (AVMA) survey of veterinarians from the American Association of Bovine Practitioners and the Academy of Veterinary Consultants showed that only one in five veterinarians reported using an analgesic or local anesthetic during castration.⁶⁶ Producers have stated that they choose not to use pain-relieving drugs because research has shown that one to seven-day-old calves exhibit very few, if any, signs of pain or distress. Studies have also shown that the plasma cortisol (the stress hormone) concentrations in castrated calves is not significantly more elevated when compared to levels in uncastrated calves.⁶⁷ As of July 2015, Animal Welfare Approved, an animal-welfare certification organization, allows its producers to perform surgical castration without the use of pain-relieving drugs for calves younger than two months and to use rubber rings without pain-relieving drugs for calves younger than one week.⁶⁸

A disadvantage of using pain-relieving drugs during castration is that they require a calf to be retained for a longer period of time to recover from the effects of the drug. The use of drugs thus will extend the amount of time a calf is

separated from its mother and require more farm workers to handle recovery of the calf. Moreover, if general anesthetics are used, calves become uncoordinated when recovering and are prone to injury.⁶⁹ A final problem is the limited availability of pharmaceuticals and the cost associated with their use. The only NSAID-approved drug for use in cattle in the U.S. is flunixin meglumine, and its approval is for controlling fever associated with respiratory disease or mastitis, and fever and inflammation associated with endotoxemia, not for controlling pain. Extra-label drug use in the U.S. is permitted only under certain conditions, and the animal must undergo a prescribed meat and/or milk withdrawal period afterward. Those drugs that are available for use require a veterinarian to administer (normally producers can perform castration without needing a veterinarian), and this adds to the cost of the castration.⁷⁰

Throughout the world, countries have different requirements for pain relief during steer castration. The United Kingdom allows the use of elastrator rings on calves younger than one week, Australia allows castration without pain relief until six months, and Switzerland requires pain relief for all castrations.⁷¹

An *Animal Frontiers* article summarizes the obstacles hindering the widespread adoption of the use of castration medicated pain relief in the U.S.:⁷²

In order for pain mitigation strategies to be actively adopted by the industry, they must be readily available and registered for use, effective against pain, easy to administer, long acting, have short withdrawal periods, show return on investment, and address public welfare concerns.

Dehorning and branding are also often performed without use of pain-relieving drugs.⁷³ Dehorning and disbudding, while controversial, is used to prevent injuries and bruising of other animals in feedlots, confined spaces, and the field. Disbudding involves destroying horn-producing cells and can be done through chemical, hot-iron, and physical methods. Dehorning is the removal of the horn after it has formed from the horn bud and can be done with the use of wire, shears, saws, or high-tension rubber bands. As of July 2014, the AVMA reported that the practice was currently unreg-

ulated.⁷⁴ Welfare concerns regarding the removal of horns includes acute pain and distress as well as the risk of disease such as tetanus after the dehorning. The use of sedation, cauterization, and anesthesia are potential ways to lessen the pain caused by dehorning. As with the drugs for castration, the access to and cost of anesthetics limit producer ability to use pain medication during the procedure.⁷⁵

Branding is a type of identification used to protect animals and the animal owner if a cow is lost or stolen and can be performed through either freeze or hot brand. Branding normally takes about ten seconds to apply, and no special care is needed after the procedure. Branding is shown to cause only short-term pain, thus many believe pain relief is not necessary for that procedure. The USDA requires a hot-iron brand on cattle that are reactors for tuberculosis, exposed to tuberculosis, or reactors for brucellosis.⁷⁶

Alternatives to branding include ear tags, tattoos, and microchips. All of these methods cause some acute pain when administered. In an AVMA article, it was noted that “there is a lack of peer-reviewed literature pertaining to pain caused

by other methods of identification,” but some who use the alternatives believe ear tags or microchips cause less pain than branding.⁷⁷

Most organizations such as the AVMA and the Animal Welfare Approved contend that pain should be minimized, during any procedure, to provide for the overall welfare of the animal. Current research shows that there are advantages and disadvantages to the use of pain mitigation in branding, dehorning, and castration.⁷⁸

HANDLING AND TRANSPORT

Cattle are stressed during transport due to exposure to unfamiliar surroundings, noises, social regrouping, loading and unloading, prolonged travel times, and feed and water deprivation.⁷⁹ Transport stress is especially concerning for calves, often resulting in increased morbidity and mortality rates.⁸⁰ Preconditioning calves—which includes weaning for at least forty-five days before transport and teaching calves to eat from a feeder—has been shown to reduce calf stress response to handling and transport. Likewise, vaccinating,



Beef cattle at the Oklahoma National Stockyards.

GARY GRALLETT/IMAGES



LIVESTOCK *Beef Cattle*

castrating, and dehorning prior to transport can result in less risk of additional effects to the young animal.⁸¹

Originally passed in 1873 and amended in 1994, the Twenty-Eight Hour Federal law requires animals transported by land in the U.S. to be unloaded every twenty-eight hours for rest, food, and water to minimize animal stress (in the European Union, the maximize length of travel time is fourteen hours). Animals are required to “be unloaded in a humane way” into pens for feeding, water, and rest for at least five consecutive hours. Violators of this law face a civil penalty fee of between \$100 and \$500.⁸²

Researchers’ recommendations to improve the transporting of livestock safely include creating trailers with sufficient height to prevent back injuries and with ample room to prevent overcrowding, bruising, and the inability

of an animal to get back up on its feet if it falls. It is also recommended that those transporting the cattle should ascertain that haircoats are dry to maximize an animal’s ability to retain heat, specifically in freezing temperatures and in the rain and snow. Wet haircoats can lead to high losses through death.⁸³

The cattle’s psychological fear reaction associated with transport handling can be mitigated by prior non-aversive experiences with similar processes. Dr. Temple Grandin, professor of animal science at Colorado State University, notes that specific cattle breeds have a higher level of cortisol, which can affect an animal’s response to various handling procedures. She says that breeding animals which do not have as much of a tendency to fear reactions could decrease problems with transportation.⁸⁴



BRANDI SIMONS/GETTY IMAGES

FEEDLOTS

Although a vast majority of feedlots in the U.S. have a holding capacity of less than 1,000 head, the feedlots with numbers greater than 1,000 head hold between 80 to 90 percent of the fed-cattle market. Feedlots with more than 32,000 head hold around 40 percent of cattle in the beef industry.⁸⁵ The large numbers of animals handled at these facilities necessitate close regulation to ensure the health of the cattle.

According to Heather Buckmaster of the Oklahoma Beef Council, Oklahoma feedlots are monitored by veterinarians and nutritionists on staff or on contract to ensure the health of cattle.⁸⁶ Feedlot veterinarians are primarily charged with ensuring that the animals gain sufficient weight before going to slaughter, preventing the spread of communicable diseases among the animals, and helping with procedures such as castration and dehorning.⁸⁷

Some feedlots participate in voluntary third-party auditing programs. IMI Global offers the Humane Handling verification program under its USDA Process Verified Program. The standard used by IMI Global for verification was developed by the National Cattlemen’s Beef Association in conjunction with Dr. Temple Grandin.⁸⁸

Grandin has identified several cattle-welfare issues of concern at feedlots, including:

1. Heat Relief
2. Mud Control
3. Cattle-Handling Practices
4. Clean Water Troughs
5. Euthanasia of Non-ambulatory and Disabled Animals
6. Non-slip Flooring in Handling, Processing, Sorting, and Loading Areas

Since feedlots do not normally contain trees, ponds, or grass, cattle must be provided with shade, clean water, and feed throughout their time in the confined feedlot area. Handling animals safely, efficiently, and securely when they arrive, while they are at the feedlot, and when they are loaded for the slaughter facility should be addressed in each feedlot’s husbandry policies. Grandin also recommends that knife castration, dehorning, and branding should not be performed at feedlots.⁸⁹

RECOMMENDATIONS

The beef-cattle industry is the leader in Oklahoma agriculture economics. Unlike the animals in the swine and poultry industries, the animals in the beef-cattle industry are still raised in outdoor pastures on smaller producer farms. Only when cattle are sent to feedlots do they face the more concentrated environment. Most welfare issues facing beef cattle are related to pain mitigation and humane handling procedures.

Advance research in the best ways to mitigate pain for cattle during branding, dehorning, and castration.

Promote safety and animal-welfare policies in feedlots. Encourage the use of shade and sprinklers, and develop ways to control mud, dust, and flies.

Require the humane handling of cattle during transportation to decrease stress; allow more space and require temperature control; and study maximum transportation times.

Support producer participation in certification programs that have policies regarding animal welfare.



“IF AN ACTOR knows how to milk a cow, I always know it will not be difficult to be in business with him.” —WERNER HERZOG

LIVESTOCK Dairy Cows



BLOOMBERG/GETTY IMAGES

BACKGROUND

Dairy cows are kept in herds until they give birth. At around fifteen months, a dairy cow will be bred through artificial insemination. A heifer—a female cow that has not given birth—is typically kept in an outdoor pasture during the nine months of gestation.

Calves are removed from their mothers within hours or days of birth and are fed milk or milk replacer on a bottle. Female dairy calves can be kept by the producer to increase the herd, sold to other dairy farms, or sent to market as beef. Male calves can be sold for veal, kept as a breeding bull, or raised as a steer for beef.⁹⁰

Since cows produce milk only after calving, dairy producers keep cows in a relatively constant cycle of pregnancy to maintain milk production.⁹¹ Forty to sixty days after calving, a cow will be bred again. Cows are milked two to three times a day at barn stalls and often through an automatic milking system. Milk production in the cow will eventually decline until it completely stops, and a

cow will be “dried off—allowing the cow’s udder tissue and digestive system to recover—for approximately two months and then the cow will calve again.⁹²

WHERE THEY ARE FOUND

Nationally, Oklahoma ranks thirty-first in the number of dairy cows and thirtieth in total milk production.⁹³ The value of milk production ranked seventh of all published commodities in Oklahoma in the 2012 USDA Census of Agriculture.⁹⁴

The number of dairy cows in Oklahoma has declined over the past several years. In 2012, the USDA Census reported Oklahoma as having 756 farms with 45,885 milk cows. In 2014, there were 45,000 milk cows, down 28% from the 2012 census.⁹⁵ The state also has four plants that process one or more dairy products.⁹⁶

In recent years, Oklahoma dairy farms have shifted from smaller farms with fifty to sixty cows to larger dairies with 2,000 cows or more.⁹⁷ This change is consistent with the

national trend of a growing number of large dairy farms with 500 or more cows.⁹⁸ Results from the USDA 2012 agriculture census show that of the 756 farms with milk cows only nine farms had 500 or more cows. Those nine, however, held more than 60 percent of the total number of milk cows for the state.⁹⁹ See **FIGURE LIVESTOCK 6** for the dairy-cow farm distributions in the state.

CURRENT LAW AND POLICY

Grade A dairy producers must meet strict health and sanitation requirements for fluid consumption. The U.S. Grade A Pasteurized Milk Ordinance was created to encourage high levels of milk sanitation and uniformity in the production process.¹⁰⁰ While the U.S. FDA develops guidelines and maintains oversight of state standards for Grade A milk, each state agricultural department is responsible for developing health and sanitation standards governing milk production. In Oklahoma, ODAFF Dairy Services inspect dairy farms, milk, and milk-product processing plants.¹⁰¹

OVERSIGHT GROUPS

In response to consumer concerns for the treatment of cows in the dairy industry, the National Milk Producers Federation, a cooperative of U.S. milk producers that promotes the milk industry, developed the Farmer’s Assuring Responsible Management (FARM) program. FARM is a nationwide, third-party verification program designed to ensure high standards in dairy-cattle care and well-being. FARM guidelines for those seeking certification in the program include training all caretakers in the care of newborn calves, herd health, housing, and low-stress animal handling. Farms are reevaluated every three years. FARM certification currently requires farmers to phase out the use of tail docking by 2022.¹⁰²

WELFARE ISSUES

Dairy cattle confront many of the same welfare issues as beef cattle—pain alleviation, transportation, and eventual slaughter—but dairy animals also have specific problems associated with repeated breeding and milk production. The continued cycle of giving birth, lactating, and subsequent pregnancy, as well as the problems of overproduction of milk, a restrictive housing system,

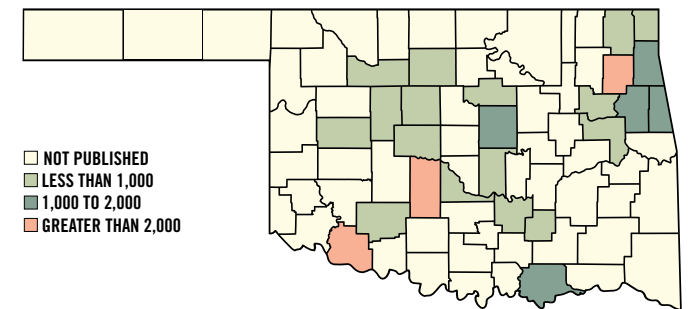


FIGURE LIVESTOCK 6: Oklahoma milk cow inventory (January 1, 2013).

(Source: Oklahoma Agricultural Statistics 2014, USDA-NASS, ODAFF)

mastitis, lameness, and tail docking, all negatively affect a dairy cow.¹⁰³ Tie-stalls—stalls large enough for one animal, which is usually tied in by a neck chain—are also a welfare concern because cows are unable to leave their stalls or move and interact naturally.¹⁰⁴ It is important to note that tie-stalls are commonly used in the colder climates of the northern U.S. to protect the cows from the weather. In Oklahoma, because the temperatures are not as cold and because there is ample grazing, dairy cows are typically kept in free-stalls or grazed on pastures.¹⁰⁵

In her outline of critical control points for dairies, Dr. Grandin identified what she saw as the three greatest welfare concerns on dairy farms: the welfare of newborn calves, lameness, and the handling of non-ambulatory cows.¹⁰⁶

NEWBORN CALVES

Dairy calves, pulled from their mothers sometimes within hours of birth, are typically fed by bottle twice daily. This type of feeding is in contrast to beef cattle, which are left to nurse with their mothers throughout the day until weaned at six months. Research shows that feeding three or four times a day can improve a calf’s body weight gain, feed efficiency, and overall survival.¹⁰⁷ Dr. Bailey Norwood, agricultural economist at OSU, says that dairy calves fed with a bottle “are getting all the nutrients they need, but providing formula milk numerous times throughout the day to the calves would better match the calves’ desire to nurse frequently throughout the day.”¹⁰⁸



LIVESTOCK Dairy Cows

Other calf welfare issues include market management and unloading practices that result from selling newborn calves at auction or to a calf dealer. Dr. Grandin asserts that newborn calves can suffer serious welfare problems at livestock markets that could be averted if calves were sold only when they were old enough to walk and stand on their own, have already received colostrum (early, nutrient-rich mother's milk), and have dry haircoats and navels.¹⁰⁹

Young male calves are not highly valued in the dairy industry because they do not play a significant economic role in milk production. Most males are sold at a young

age to the beef and veal markets. Traditional veal production has been highly criticized for putting young calves into dark, small crates designed to severely restrict movement and ensure tender meat quality.¹¹⁰ Although modern veal production is more likely to have open facilities, lighting, and ventilation, animal welfare groups still criticize the industry as compromising the health of calves.¹¹¹ It should be noted that veal production is not a contested issue in Oklahoma. ODAFF state veterinarian Rod Hall noted that he is not aware of any Oklahoma dairy producers raising calves for veal production.¹¹²



A rotary milking parlor

POLAT/SHUTTERSTOCK

LAMENESS AND DOWNER COWS

Non-ambulatory cattle, referred to as “downers,” are animals who collapse and cannot stand or walk by themselves. Their lameness is often a result of debilitating illness or injury, including broken bones, torn ligaments, nerve paralysis, vertebral fractures, and metabolic disease. Under USDA FSIS regulations, non-ambulatory animals cannot be slaughtered for human consumption. Instead, downer animals are killed and redirected for a secondary use in products such as pet food.¹¹³

It is estimated that as many as 75 percent of all downed cows are from the dairy industry.¹¹⁴ Lameness in dairy cows is associated with poor body condition, frequent hoof trimming, heat stress, concrete stall surfaces, and frequent lactation.¹¹⁵ Dr. Grandin notes that a high percentage of downed cattle are elderly dairy cows whose demise could have been prevented with better health care to obviate emaciation and weakness as well as by transporting them to market or slaughter before they are too weak to walk.¹¹⁶

TAIL DOCKING

Tail docking is used to improve the comfort of milking personnel when handling the cows, improve udder cleanliness, reduce incidence of mastitis, and improve milk quality. The standard methods of docking dairy-cow tails include cauterization irons, application of elastrator bands (most common), shears, or surgical excision and is usually performed on calves near weaning age and without anesthetic.¹¹⁷

Tail docking has been phased out in New Zealand and other countries and is slowly being phased out in the U.S. California recently passed legislation banning tail docking, and as noted earlier, the National Dairy's FARM program has made it a policy to phase out the process by 2022 at the dairies in the program.¹¹⁸

The AVMA currently opposes routine use of tail docking. Research has not shown the practice to actually improve udder cleanliness, reduce mastitis, or improve cleanliness of milk. Overall, the practice of tail docking appears to create animal stress and acute pain and does not improve the welfare of the cattle.¹¹⁹

RECOMMENDATIONS

Areas of improvement for dairy cattle in Oklahoma include:

Established regulations for when a dairy cow can be sent to market. Elderly cows and frail newborns are often too weak to handle slaughter and marketplace environments. Require that young cattle be able to walk, have received colostrum, and have dry navels.

Support the complete ban of tail docking in the state. The practice of tail docking has been banned in countries throughout the world, and the AVMA opposes standard use of the practice.



LIVESTOCK Pigs & Hogs



Piglets in a farrowing crate

BLOOMBERG/GETTY IMAGES

HISTORY AND BACKGROUND

Pigs were first domesticated in Asia around 10,000 B.C. and introduced to North America in the late 1600s. By 1847, there were nearly twice as many pigs as people in the U.S.¹²⁰ Danish agriculturists in the early 1900s found that housing swine indoors provided for efficient use of land, protected animals from the weather, eliminated fighting between animals, and improved feed efficiency.¹²¹ As the number of producers declined in the twentieth century, so began the evolution of swine housing.

PHYSIOLOGY AND SOCIAL BEHAVIOR

Pigs have color vision and a panoramic range of about 310°. They prefer lighted areas to dark, have a well-developed sense of smell, and tend to communicate vocally. Pigs can learn quickly to manipulate food and water devices or to turn on and off fans or radiant heat.^{122, 123, 124} Pigs are sensitive to hot conditions, and their ability to sweat is low.

Feral pigs have a matriarchal structure of females and offspring. Males tend to interact with the group only for breeding and are not permanently associated with herd. Domestic pigs are either kept with litter mates throughout their lives or divided and grouped with other breeds and litters. There are two types of social organization in the domestic pig: (1) teat order and (2) dominance hierarchy.¹²⁵

Teat order is associated with the udder position piglets find in the weeks after birth. Some teats may have an advantage of milk letdown and more milk, and piglets will often fight and compete for eating territory. The dominate pigs will suckle at the first pair of teats and gain weight faster.¹²⁶ Dominance hierarchy is established in weaned pigs (at around three to four months of age). When unacquainted pigs are mixed, they will fight—mouth-to-neck attacks or strong thrusts—for dominance. The fighting for hierarchy occurs generally within twenty-four hours of intermixing, but general aggression will drop after just one hour.¹²⁷ The hierarchy is a group stabilizer.

“I AM FOND of pigs. Dogs look up to us. Cats look down on us.

Pigs treat us as equals.” —WINSTON CHURCHILL

In a paddock (not confined housing) situation, a sow will nest-build—hollow out a depression and line it with straw, sticks, and grass—for six hours before parturition (childbirth).¹²⁸ After birth, nursing is frequent, every fifty to sixty minutes, and the sow requires stimulation from the piglets before milk letdown.

HOG PRODUCTION CYCLE

Since the 1960s, U.S. hog production has gone from open pastures and group pens to enclosed buildings.¹²⁹ Dr. Bailey Norwood, agricultural economist at OSU, states that because hogs are hard to handle and tend to tear up the ground in a pasture system, it is easier for most farmers to keep hogs indoors.¹³⁰ The confined facilities also allow producers to care for a greater number of animals at a lower cost per animal as the herd increases. The enclosed temperature-controlled buildings buffer animals from hazards of extreme weather conditions, other predators, and disease.^{131, 132}

Confined housing has prompted the use of sow stalls or farrowing and gestation crates. Gestation crates are individual metal stalls used to house breeding sows during pregnancy.¹³³ The crates are typically seven feet long and two feet wide with enough room for a sow to stand or lie down, but not enough to turn around.¹³⁴ Farrowing crates are slightly larger and are used for sows to nurse piglets. Stalls have slatted floors, instead of bedding, that allows waste to pass below to be collected. The stalls enable a producer to increase the number of sows in a given space, control feed intake, prevent social stress and aggression from other pigs, protect workers from injury of large sows, assist in manure management, and reduce the number of piglets crushed by sows.¹³⁵ Workers can also monitor health and housing temperature and minimize the spread of disease among the animals.¹³⁶

Roy Lee Lindsey, executive director of the Oklahoma Pork Council, estimates that Oklahoma has approximately 420,000 sows, 300,000 of which are housed in sow stalls and 120,000 in some form of group or loose housing.¹³⁷

Piglet’s teeth and tails are clipped at birth to prevent injuring the sow during nursing and to discourage tail biting among piglets. A sow is typically bred again three to five days after her piglets are weaned. Weaned piglets are placed in temperature-controlled nurseries, where they have access to water and feed until six to ten weeks. Pigs removed from the nursery are moved to a “grow-finishing” building,

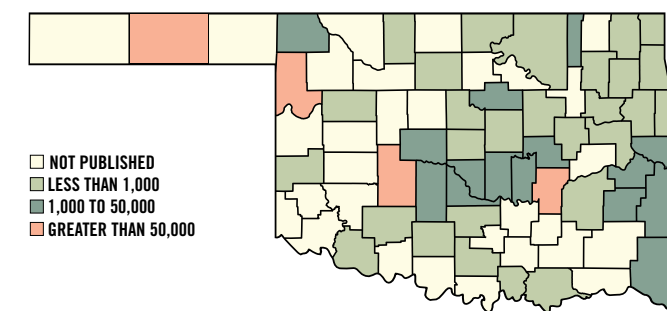


FIGURE LIVESTOCK 7: Hog and pig inventory, Oklahoma (December 1, 2012).

(Source: Oklahoma Agricultural Statistics 2014, USDA-NASS, ODAFF)

where they are allowed to free-feed until they reach a market weight of 250 to 275 pounds, typically at five to six months. These areas are ventilated and temperature-controlled. Some young female pigs (gilts) may be transferred to replenish the sow herd for breeding; other females are sent with the male pigs for slaughter and processing.¹³⁸

WHERE THEY ARE FOUND

The 2012 U.S. Census of Agriculture ranked Oklahoma eighth in the nation for hog production, with 2.32 million hogs housed in the state. The economic value of hogs was over \$241 million. Though the number of hogs decreased in 2013 to 1.98 million hogs, the economic value was over \$245 million.¹³⁹

The Oklahoma’s hog industry has changed substantially since the mid-1990s, when the number of hogs increased by more than 700 percent, from 260,682 in 1992 to 2.3 million in 2012.¹⁴⁰ Texas County, in western Oklahoma, experienced the largest growth in hog numbers, from 200,000 in 1991 to 1.11 million in 2012 (**FIGURE LIVESTOCK 7**). The growth of hog numbers in Texas County is due in part to the opening of a Seaboard Foods hog processing facility in Guymon in 1995.¹⁴¹

Seaboard Foods is one of the largest corporate pork producers and processors in the U.S., and Seaboard’s Guymon facility is the only U.S. processing plant for the company. The Guymon plant slaughters 5.5 million hogs annually for both domestic and international markets.¹⁴² While Seaboard raises



LIVESTOCK *Pigs & Hogs*

the majority of the hogs it processes—80 percent in 2013—the company also contracts with independent producers in Oklahoma as well as Kansas, Texas, and Colorado.^{143, 144}

Today, large swine operations in the U.S. tend to be “vertically integrated” in structure. In vertical integration, a large corporation will take over multiple phases of production and distribution to create efficiencies and reduce costs in the entire meat-producing process.^{145, 146} The corporation will own various parts of the hog-raising process, including the animal, facilities, feed, etc., and is therefore liable for different levels of risk in the process. The contracts created between the producers and the corporation will specify the quantity, when, and how the producer will return the hogs back to the corporation.¹⁴⁷ In 2012, there were 1,947 hog operations in Oklahoma, eighty-one of which had an inventory of 1,000 or more hogs. The eighty-one operations—or 4 percent of the total hog operations—held 99 percent (2.28 million head) of the total hog and pig inventory for the state.¹⁴⁸

Oklahoma is primarily a piglet producing state in the vertically integrated system with approximately 7.5 to 8 million pigs produced or born each year and 2 to 3 million are raised to be butchered. Most of the baby pigs born and weaned in Oklahoma are shipped to other states for finishing because it is more cost effective to ship the hogs to corn producing states than to ship the corn to Oklahoma.¹⁴⁹

There are also feral hogs in Oklahoma, though unlike other non-domesticated animals feral-hog numbers are not as easily kept. Based on a survey by the Sam Noble Foundation of Ardmore, Oklahoma, the feral-hog population in Oklahoma is between 617,000 and 1.4 million.¹⁵⁰

CURRENT LAW AND POLICY

In 1991, Oklahoma Senate Bill 518 made legislative exceptions to the state’s anti-corporate farming law and allowed foreign and corporate ownership of land. These changes permitted swine operations, feed mills, and processing facilities to consolidate hog production into larger operations.¹⁵¹ This legislative change allowed for the growth of the hog industry in Oklahoma.

There is no federal legislation regulating the conditions of animals being raised on farms. Federal law focuses primarily on the integrity of the food supply. The Swine Health Protection Act (SHPA) regulates food waste containing any meat products fed to swine. Under this act, all food waste fed

to swine must be treated to kill disease organisms. Raw meat may transmit numerous infectious and exotic-animal diseases such as foot-and-mouth disease, African swine fever, classical swine fever, and swine vesicular disease.¹⁵²

OVERSIGHT GROUPS

The National Pork Board, an organization that represents producers and stakeholders in the U.S. pork industry, states that animal welfare is an important goal to pork producers. The board and other pork-producer organizations contend that animal-welfare decisions should be based on sound science. They state, “Because animal welfare can easily become an emotional issue, it’s important to base decisions around sound science. Otherwise, changing the dynamics of the farm may impair rather than enhance welfare.”¹⁵³ The National Pork Board has developed the Pork Checkoff Animal Welfare Committee, comprised of producers and scientists who research sow gestation housing, sow longevity, space requirements, the handling and transport of swine, production practices, and the euthanasia of swine.¹⁵⁴ Information found by the Pork Checkoff Committee is disseminated to pork producers through such programs and documents as Pork Quality Assurance Plus (PQA Plus), Transport Quality Assurance, Swine Welfare Assurance, and the Swine Care Handbook.

The Swine Welfare Assurance program was designed to allow pork producers to use science-based evaluation measures to benchmark and track hog welfare on their farms. These measures were developed by national and international experts in animal behavior, physiology, veterinary medicine, production, housing, handling, and stockmanship.¹⁵⁵

The PQA Plus program was first developed in 1989 by pork producers to provide education and a certification program to reduce drug residues and ensure the food safety of pork. Roy Lee Lindsey, with the Oklahoma Pork Council, states that the PQA Plus program is currently one of the most detailed quality-assurance programs in the livestock industry and provides education on good management practices, including an extensive animal-welfare assessment and a zero-tolerance policy for any type of animal abuse.¹⁵⁶ Involvement in PQA Plus is voluntary and requires that producers pass individual certification, a farm-site assessment, and a third-party verification.¹⁵⁷

As of fall 2013, 1,465 adults were PQA Plus certified in Oklahoma, and 301 farms had enrolled in the site-assessment



Female pigs stand in the pens of a gestation barn.

portion of the program. Site assessments are conducted only on commercial swine farms in the state, and 95 percent of commercial swine facilities in Oklahoma have completed a site assessment as part of the PQA Plus program. Seaboard Foods currently requires all its pork producers to be PQA Plus certified. Roy Lee Lindsey says, “Oklahoma hog farmers have one of the highest participation rates in the country for Pork Quality Assurance Plus program.”¹⁵⁸

There are also 447 adults certified in the Transport Quality Assurance program and 680 youth participating in the Youth PQA Plus program. Currently there is minimal participation by smaller hog farmers with less than a hundred head of hogs in the Oklahoma Pork Council certification programs.¹⁵⁹

WELFARE ISSUES

A 2010 study by the Iowa State University’s Department of Veterinary Diagnostic and Production Animal Medicine noted that “welfare issues arise in pig production when there is a mismatch between pig instinct and its environment.”¹⁶⁰ Many of the current welfare concerns regarding pigs are related to the way the animals are housed on CAFOs.

CONFINEMENT AND SOW CRATES

The use of gestational and farrowing crates is a primary area of contention for animal-welfare proponents.¹⁶¹ The pork industry contends that crates increase production, decrease stress on animals, decrease the likelihood of crushing



LIVESTOCK *Pigs & Hogs*



BLOOMBERG/GETTY IMAGES

piglets, and protect workers from aggressive, heavy sows. As mentioned previously, crates also allow producers to monitor each pig for nutritional and health issues as well as decrease the natural aggressive and injurious behavior among sows.

Animal-protection groups, however, see the use of crates as providing swine with “little opportunity to display their full range of complex social, foraging, and exploratory behavior.”^{162, 163} The Humane Society of the United States (HSUS) states that intensive confinement of the sows reduces muscle weight and decreases bone strength, resulting

in increased risk of injury and lesions from bars and bare flooring.¹⁶⁴ The confinement in crates has also been reported to cause severe psychological problems in the sows as exhibited when the animals bite bars and are unresponsiveness to the squeals of their piglets or other sows.^{165, 166} Those opposed to confining swine contend that when a pig’s natural tendency to chew objects is thwarted it can be misdirected at other pigs through tail and ear biting.¹⁶⁷

Increased scrutiny has led to the legislative banning of gestation crates in the European Union and Canada. Nine states in the U.S.—Arizona, California, Colorado, Florida,

Maine, Michigan, Ohio, Oregon, and Rhode Island—have also banned the practices.¹⁶⁸

Retrofitting existing sow stalls to group-housing pens requires upfront expenses and will reduce the number of sows in a given space. To make the change, producers must decide either to reduce output or to make additional space for the pigs.¹⁶⁹ Group housing can include either pens that hold between six and fifteen hogs or larger housing with twenty hogs to a pen. Group housing also requires producers to decide whether to feed animals individually or as a group and whether the same pigs will be housed together permanently or different pigs will be added as time goes on, which could lead to injury and fighting among the animals.¹⁷⁰

Roy Lee Lindsey stated it costs approximately \$330 per stall to convert to group housing, making it a large investment to retool with little opportunity for producers to recoup their money. Lindsey also contends that group housing takes 30 to 40 percent more space than sow-stall housing.¹⁷¹ James McKean, associate director of the Iowa Pork Industry Center at Iowa State, stated in a 2014 article that the same space used currently for a hundred sows in crates would accommodate only about sixty to seventy sows in group housing.¹⁷²

Research on the actual costs of the various sow housing methods is inconsistent. An Iowa State University study found that sows in hoop barns, or group housing, gave birth to more live pigs per litter than sows in farrowing stalls. While operating costs were similar for both systems, the total costs per weaned pig was shown to be less for hoop barns.¹⁷³ Research conducted by Dr. Norwood of OSU determined that new construction costs would be roughly the same for group pens as the cost for gestation stall facilities.¹⁷⁴

CORPORATE RESPONSE

While the debate on how the welfare of sows should be measured continues, major pork suppliers such as Smithfield, Tyson, Hormel, and Cargill are currently urging or requiring their farmer-suppliers to phase out the use of gestation crates.¹⁷⁵ Chinese-owned Smithfield, the world’s largest pork producer and processor, urged its contract farmers to end the use of gestation crates by 2022, and while the change is not mandatory, the company says that

farmers who choose not to participate will be less likely to see their contracts extended than those producers who do convert to group housing.¹⁷⁶

In January 2014, Tyson Foods, one of the largest U.S. pork producers and a major employer in Oklahoma, sent a letter to its pork suppliers notifying them that Tyson would be increasing its third-party sow-farm audits and urging producers to make changes in their production practices to “ensure responsible on-farm treatment of animals.” These recommendations included:¹⁷⁷

- Using video monitoring on sow farms to increase oversight and decrease biosecurity risks
- Discontinuing the use of manual blunt-force trauma as a primary method of euthanizing sick or injured piglets
- Developing and using pain mitigation for tail docking and castration in piglets
- Improving quality and quantity of space in housing systems for gestation sows. (While not prohibiting the use of gestation stalls, Tyson does state that housing “should allow sows of all sizes to stand, turn around, lie down, and stretch their legs.”)

The National Pork Board issued a press release in response to Tyson’s letter to the pork producers. In the release, it contends that there are no currently approved drugs that can be used in pain mitigation in pig farming. The National Pork Board also stated that video monitoring, while a useful tool, is extremely costly to add to farming operations and should be used not as a single tool but as part of a more comprehensive management approach. It also cites the current policy of the American Veterinary Medical Association (AVMA) and the American Association of Swine Veterinarians which holds that proper housing and care for sows can be provided in numerous ways and that each system has welfare advantages and disadvantages.¹⁷⁸

In 2013, the HSUS filed a complaint with the Federal Trade Commission regarding false and misleading statements made by Seaboard Foods on its Web site claiming to use humane practices. Seaboard’s response defended the use of gestation crates as standard U.S. industry practices but did alter the language on its Web site.¹⁷⁹ Seaboard was forced in 2013 to change its online advertising claiming



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to use the most humane practices throughout the animal's life. As of the publication of this report, Seaboard Foods had still rejected pressure from the HSUS and other animal-welfare groups to phase out the use of gestation crates.

Other major retailers and restaurants—including Walmart, McDonald's, Burger King, Wendy's, Applebee's, Subway, Oscar Mayer, Wienerschnitzel, Safeway, Kroger, Chili's, IHOP, and Costco—have made public statements regarding their plans to phase out buying pork products from suppliers that use gestation crates.¹⁸⁰

HANDLING AND TRANSPORT

Hogs can be difficult to move, as they have poor depth perception and can be easily stressed or frightened. Dr. Temple Grandin has noted that certain genetic lines of pigs that are often selected for their lean meat are also

more excitable than others.¹⁸¹ Indicators of stress in hogs include open-mouth breathing, vocalizing, blotchy skin, stiffness, muscle tremors, increased heart rate, and increased body temperature. A stressed pig is a safety risk for both the handler and the animal.^{182, 183}

Management tools used in hog handling and transportation include electric prods, paddles, flags, and sorting boards.¹⁸⁴ Grandin has researched the handling, moving, and loading of pigs and suggests that, because pigs are easier to handle when calm, they need to be exposed to people throughout their lives so they do not panic when moved, but not so exposed that the pigs follow the people in daily activities.¹⁸⁵ She also notes that pigs are sensitive to rough handling, changes in social groups, and changes in lighting and flooring.

Newer genetic lines of pigs that have been selected for their fast growth rate have been found to be more suscep-

tible to heat stress than other breeds.¹⁸⁶ Grandin notes that overloaded trucks, especially in hot weather, are a major cause of pig mortality during transport.¹⁸⁷ These challenges to working with hogs can be exacerbated by worker fatigue associated with handling large numbers of pigs and can sometimes lead to aggressive or abusive actions from farm workers and transport drivers.¹⁸⁸

From 2010 to 2011, Seaboard Foods' Guymon plant had five plant suspensions for inhumane slaughter, including incidences related to pigs exhibiting signs of consciousness after having been hung on the bleed chain and a gate coming down on a pig's neck.¹⁸⁹

In November 2013, a nationally released video from an Oklahoma Tyson pig farm showed “workers throwing, kicking, and hitting pigs, and slamming piglets into the ground to euthanize them.” Public outrage over the video was voiced from across the U.S. Within days, Tyson Foods terminated its contract with the pig producers on the farm, West Coast Farms, and took back physical possession of the pigs.¹⁹⁰ In an e-mail to the Associated Press, Tyson Foods spokesman Gary Mickelson wrote, “We’re serious about proper animal handling and expect the farmers who supply us to treat animals with care and to be trained and certified in responsible animal care practices. It’s consistent with our core values to serve as stewards of the animals entrusted to us.”¹⁹¹ The owner of the farm is quoted as saying, “I was stunned that anyone could be that callous in their treatment of any animal. After viewing the video, I immediately returned to my farm and terminated the employees seen in the video.”¹⁹²

The Oklahoma Pork Council issued a statement condemning the “horrible actions by farm workers,” stating that those actions “directly violate the Oklahoma pork industry’s ethical principle to protect and promote animal well-being.”¹⁹³ Dr. Grandin was contacted by several media outlets and is quoted as saying, “Poking pigs in the eye multiple times, violently shaking a young piglet, beating a sow with the edge of a board—these are things I rate as cruelty to animals.”¹⁹⁴ While some of the actions in the video, such as the use of blunt-force trauma for euthanasia, are considered to be standard practices approved by the AVMA, Dr. Candace Crony, associate professor of animal sciences at Purdue University, said the behaviors on the video led her to question “how well other procedures such as castration and blunt-force trauma are performed.”¹⁹⁵

HEALTH CONCERNS

Confirmed in May 2013, the Porcine Epidemic Diarrhea (PED) virus killed millions of piglets in one year in the U.S. The virus is present in many countries in Asia and Europe, though there is no confirmation of a source or location for its entry into the U.S.¹⁹⁶ The virus causes severe diarrhea and vomiting and results in almost one hundred percent mortality in young pigs.¹⁹⁷ In 2014, estimates on the number of pigs who have died in the U.S. from the PED virus range from 2.7 million to more than seven million.¹⁹⁸ The virus is confirmed in thirty states including Oklahoma, which has been among the states hardest hit by the virus. Oklahoma lost nearly 8 percent of its swine inventory due to the recent PED virus.¹⁹⁹

RECOMMENDATIONS

Areas of improvement for swine in Oklahoma include:

Retrofit crates and provide chew objects to entertain swine as two ways to help alleviate stress on hogs and pigs. The current use of gestational and farrowing crates and general confined areas of pigs in CAFOs leads to unnatural behavior of the swine.

Require safe, humane handling and transportation practices among hog producers.

Encourage responsible hog breeds that are less excitable and not prone to heat stress. Producers should balance the breeding of a type of hog that matches consumer demand (e.g., lean) with an animal that is well matched to the environmental conditions it is raised in.

Encourage new construction of group housing. Although the cost of group housing is debated, the new construction of hog facilities using group housing systems could be more cost-effective than retrofitting current hog housing systems.

Encourage the pork industry to prioritize transparency to improve conditions and consumer trust.



JOEL SARTORE/GETTY IMAGES



LIVESTOCK Chickens



EDWIN REMSBERG/GETTY IMAGES

Cage-free chickens.

BACKGROUND

Domesticated more than 8,000 years ago, chickens have long been a part of the food-production system. Genetic selection in the twentieth century has done little to change the behavior of chickens. Free-ranging chickens are social animals and live in small groups.²⁰⁰ Feral chickens have been seen to spend half their time foraging and feeding.²⁰¹

Similar to feral swine, hens and chicks live together in groups, while roosters live separately. Social maturity occurs around one year of age. Free-range chickens show more aggressive behaviors than confined chickens, and group ranking or hierarchy in the groups of birds is based on factors such as size, age, and color.²⁰²

Chickens have good hearing and see color similar to the human range but have a poor sense of smell. The chicken's skin and beak contain sensory receptors allowing for perception of and sensitivity to touch, cold, heat, and noxious stimulation.²⁰³

U.S. INDUSTRY HISTORY

Until World War II, U.S. farms had relatively small chicken flocks for egg production. Hens were killed only for chicken meat after they were no longer fertile, and the meat was viewed as mainly a by-product of the egg-producing small flocks. Because chickens were not rationed during the World War II, consumption rose and the popularity of spring chicken encouraged a new market for raising broiler chickens intended only for producing meat.²⁰⁴

Developments in housing, nutrition, genetics, and disease control all helped lend speed to an emerging broiler industry and increase production numbers from the mid-1940s to mid-1950s. The high capital requirements and variations in broiler prices created high barriers of entry for producers during this period.

Because feed is a large economic cost associated with broiler production, feed companies began in the mid-1900s to develop contracts with producers as a way to increase their

“NATURE IS CRUEL, *but we don't have to be.*” —TEMPLE GRANDIN

customer base while also reducing the risks for growers.²⁰⁵ The industry became vertically integrated as feed companies built hatcheries and processing plants and contracted with growers to raise the chickens to market weight.²⁰⁶ In its 2002 report on the U.S. Broiler Industry Structure, the USDA-NASS Agricultural Statistics Board states, “The broiler industry has evolved from millions of small backyard flocks, where meat was a by-product of egg production, to less than fifty highly specialized, vertically integrated agribusiness firms.”²⁰⁷

Today, much of the chicken industry is vertically integrated, similar to the hog industry.²⁰⁸ In the modern poultry industry, integrators (such as feed companies) own or contract out all phases of production. Because most meat poultry production is integrated, transportation of birds from breeding-and-raising facilities to slaughter facilities are owned and operated by the integrator.²⁰⁹

POULTRY PRODUCTION CYCLE

In modern poultry production, chickens are selectively bred to produce birds that will be healthy, fast-growing, and good egg producers. Fertilized eggs collected from breeder farms are incubated in environmentally-controlled hatcheries. Some vaccinations for the chickens are administered before hatching while others are given after hatching according to USDA regulations.²¹⁰

On the day of hatching, chicks are typically vaccinated, gender-sorted, counted, placed in ventilated chick boxes that are loaded onto climate-controlled trucks, and transported to commercial grow-out facilities. These facilities are often contract growers who raise the chickens for the processing company.

Most commercial poultry birds are photosensitive, and changes in the amount of daylight will delay or stimulate sexual maturity and egg production. Adolescent birds are typically reared in black-out houses, where producers can control when a hen will begin laying.²¹¹

BROILERS

When meat chickens reach a certain weight, they are called broilers. Male broilers and breeding broiler hens are kept in large grow-out houses, which are climate-controlled and ventilated warehouse facilities that have automated food and watering systems. Broiler chickens are typically uncaged. Each house will have a dirt floor covered in bed-

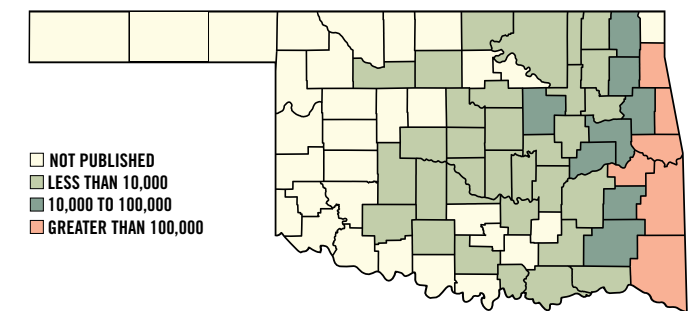


FIGURE LIVESTOCK 8: Layer inventory (December 1, 2012).

(Source: USDA-NASS Oklahoma Annual Poultry Review 2013)

ding materials such as wood chips or rice hulls.²¹² A typical grow-out house is 400 feet long and 40 feet wide and can hold up to 20,000 birds.²¹³

Most broiler chickens mature quickly and reach slaughter weight between five and seven weeks of age. Once broilers reach the desired market weight, they are taken to processing plants.

LAYERS

In the U.S., 95 percent of all eggs are produced from hens in cage systems in layer houses with automated food, water, and egg-collection systems.²¹⁴ The wire cages have sloping wire floors to facilitate egg collection and the removal of litter and waste. The dimensions of layer caging systems vary, but the United Egg Producers states typical cages hold six to ten birds and provide sixty-seven square inches of floor space per bird for hens.²¹⁵ The modern caging system allows for improved sanitation and waste cleanup, the reduction of communicable diseases spread between birds, and the protection for birds from weather and predators.²¹⁶

After hatching, immature hens (pullets) are kept in grow-out facilities where their exposure to daylight is controlled to help regulate the timing of when they will lay eggs. Pullets are vaccinated, and their beaks are trimmed to minimize cannibalism. After eighteen weeks, hens are moved to the lay house, where they are exposed to increasing daylight.²¹⁷

The two types of lay houses are floor houses, where hens are housed indoors but are free to roam in large pens, or



LIVESTOCK *Chickens*

cage houses, where hens are housed in cages attached to an automated egg-gathering system. Hens begin laying eggs at around the time they are moved to the lay houses. Each bird will lay more than 200 eggs during her first year.

Chickens naturally molt—shedding and regrowing feathers—as daylight hours decrease during the fall and winter each year. In an artificial environment, molting is induced through a period of fasting and reduction of daylight. Molting also helps to improve the egg-laying rate, shell quality, and albumin height.²¹⁸

WHERE THEY ARE FOUND

In terms of sheer numbers, Oklahoma has more chickens than any other livestock species. Oklahoma poultry production consists mainly of broilers and layers. Oklahoma has minimal table-egg production—eggs produced for human consumption. The hens in Oklahoma’s large layer inventories produce eggs for hatching into broiler chickens and, therefore, are part of the broiler-industry system. Most Oklahoma poultry facilities are found in the eastern part of the state. (FIGURE LIVESTOCK 8)

The 2012 USDA census reported Oklahoma had 6,760 layer farms, 1,025 pullet farms, 1,081 broiler farms, and 489 farms with turkeys. Ninety-six percent of the layer farms had inventories between one to ninety-nine (smaller flocks for table-egg production), and three facilities had inventories of 50,000 or more birds. The 6,760 laying farms housed more than three million laying hens and produced 741 million eggs.²¹⁹

Bryan Buchwald, poultry, egg, organic section director with the ODAFF, reports that there are approximately eighty-eight table-egg producers licensed to sell shell eggs in Oklahoma. Eighty-five of the producers were small facilities that sold less than 5,000 dozen eggs per year, two medium-sized producers housed around 25,000 layers, and one large producer housed 50,000 or more laying hens.²²⁰

Buchwald reports that the eighty-five smaller egg producers have free-range chickens and sell through area farmers markets and food cooperatives. The two medium-sized egg producers use caging systems for their layers, though Buchwald reports that one has both caged and free-range hens. The one large producer uses cages for its laying hens.²²¹

Buchwald stated that Oklahoma’s table eggs are taken to Arkansas or Missouri for washing, grading, and packing. Because they are not processed in state, the eggs are not inspected by the ODAFF’s shell-egg surveillance program. Buchwald stated that the eggs were taken across state lines because the companies do not have Oklahoma processing plants for table-eggs. Buchwald did not have information on the type of hen housing used by table-egg producers.²²²

In 2013, Oklahoma ranked eleventh in the nation for broiler production in total pounds of meat.²²³ The broiler industry is highly integrated in Oklahoma, with four primary broiler companies—Tyson Foods, Simmons Foods, O.K. Foods, and Cobb-Vantress.²²⁴ Broiler inventories are highly changeable, as integrators control the number of birds delivered to growers based on anticipated supply and demand.²²⁵ Excluding broilers, the poultry industry’s total contribution to Oklahoma’s 2013 economy reaches around \$29.5 million, with the total value of egg production totaling \$90.5 million; the total value of broiler production is \$709.6 million.²²⁶

Tyler Norvell, lobbyist for the Poultry Federation in Oklahoma, states that the birds in Oklahoma are raised in conventional enclosed barns. Norvell says that all chicken is hormone free, and vaccinations currently occur while the chicks are still in the egg. Though the birds are susceptible to many diseases, antibiotics are administered only as needed through feed, water, and injection.²²⁷

Oklahoma slaughters 1.6% of all chickens raised for meat in the U.S.²²⁸ There are four federally inspected poultry slaughter facilities in Oklahoma. The larger facilities process as many as 150,000 to 300,000 birds a day.

CURRENT LAW AND POLICY

As of July 2014, there are no federal laws regarding animal welfare in the poultry industry, except that the USDA does monitor the treatment of birds at slaughter. The USDA does not require, however, that a bird be unconscious before being euthanized.²²⁹ Poultry are not covered under the Humane Slaughter Act, and there are no humane slaughter provisions under the Poultry Products Inspection Act. At slaughter, the USDA requires poultry slaughter plants to follow “good commercial practices.”²³⁰ Food Safety and Inspection Service (FSIS) regulations (9 CFR



Layer chickens in battery cages

EDWIN REMSBERG/GETTY IMAGES



LIVESTOCK Chickens



Chicken processing

MERCY FOR ANIMALS

381.65(b) state that no live poultry should go into the scalding, and FSIS inspectors will issue citations for violations. Additionally, the USDA recommends control points for animal welfare during slaughter, including birds being able to lie down in cages without having to be under or on top of another bird.²³¹

In December 2013, the Animal Welfare Institute and Farm Sanctuary petitioned the USDA's FSIS "to develop regulations governing the handling of chickens, turkeys, and other birds at slaughter."²³² The National Chicken Council (NCC), a national non profit trade association that represents U.S. chicken producers and processors, responded to the petition. NCC stated that "member companies take animal welfare very seriously and invest significant resources into ensuring chickens are healthy and well-cared for throughout raising and processing. It is not only the right thing to do ethically; there is an economic incentive to do so." The NCC also affirmed that FSIS inspectors, plant personnel, and third-party auditors routinely monitor activities in slaughter houses to ensure that humane slaughter practices are followed.²³³

OVERSIGHT GROUPS

Similar to the beef and pork industries, the NCC developed Animal Welfare Guidelines and an Audit Checklist to ensure that the chicken industry is using the highest standards of care for the birds it raises and to increase consum-

er confidence in chicken products. The audit checklist can be completed in house by a company, through a customer representative, or by a third-party auditor. Under NCC guidelines, companies must have a person or group that manages animal-welfare policy, provides yearly training for those handling animals, and ensures that no live birds enter the scalding. NCC policies also stress intolerance of any animal abuse.²³⁴

In February 2014, Dena Jones, farm-program manager for the Animal Welfare Institute (AWI), sent a letter to NCC stating that the guideline and audit checklist seemed to focus more on gaining consumer loyalty than on animal welfare and that they were not consistent with recommendations by the World Organization for Animal Health. AWI specifically contends that the guidelines do not address unhealthy lighting in crowded housing systems, the overfeeding of birds (which often results in broken or dislocated bones in the chickens), excessive holding times of birds before slaughter, and inadequate electrical stunning protocol during slaughter.²³⁵

United Egg Producers (UEP), a cooperative of U.S. egg farmers, developed industry-driven animal-welfare guidelines in 2002. Created by a committee of scientists, government officials, and humane-association executives, the guidelines include recommendations on how to perform beak trimming, molting, handling and transportation, cage space per bird, cage-free guidelines, and methods of on-farm euthanasia.²³⁶ UEP state that 80 percent of all the eggs produced in the U.S. follow UEP Certified guidelines. When contacted for this study, the UEP did not respond when asked how many producers in Oklahoma are UEP Certified.

WELFARE ISSUES

Vertical integration within the poultry industry and the demand for abundant, consistent, affordable food have helped fuel the use of intensive production practices, including the confinement of large numbers of birds in buildings and cages. The number and close proximity of animals have also led to the practice of beak trimming. Although the industry states that the confinement of animals and the practices that accompany it are based in scientific research on animal well-being, some animal-welfare groups contend that the chickens suffer in the current industry system.²³⁷

"UNTIL HE EXTENDS the circle of his compassion to all living things, man will not himself find peace." —ALBERT SCHWEITZER

INTENSIVE CONFINEMENT: BATTERY CAGES

The four main types of housing in the layer industry are conventional cages, furnished cages, non-cage systems such as barns or aviaries, and outdoor systems. Dr. Donald Lay Jr., research leader for the USDA agricultural research service, stresses that each caging system has advantages and disadvantages. He states, "The right combination of housing system, breed, rearing conditions, and management is essential to optimize hen welfare and productivity."²³⁸

The advantages and disadvantages to using different housing cages and systems include:

- Conventional cages are easy to clean and may decrease the incidence of diseases and parasites but also limit the birds' movements. The animals have very little space to engage in natural behaviors.
- Furnished cages are similar to conventional cages. The cages provide full ceiling heights that enable birds to walk at a normal posture, additional floor space, a secluded nest box, perches, and an area for scratching.
- Non-cage and outdoor systems allow birds to exhibit a full range of natural behaviors but increase the risks of parasites, cannibalism, broken bones, and mortality.

Ninety-five percent of all eggs are produced from hens living in cage systems (both conventional or furnished) that hold six to ten birds in climate-controlled facilities with automated food, water, and egg-collection systems. Benefits of the modern caging system, when compared with free range or cage-less systems, include improved sanitation, reduction of diseases, and protection from weather and predators.²³⁹

Layer caging systems have been criticized as inhumane due to the severe restriction on the hens' movements and ability to perform natural behaviors such as nesting, dust bathing, perching, and foraging. Problems commonly associated with the cages include overcrowding, aggression, bone weakness, feather pecking, and foot damage.²⁴⁰ Research has shown that some genetic lines that have been selected for high egg production have increased levels of feather pecking.^{241, 242} Modern layer genetics also have high percentages of broken keel bones due to osteoporosis.²⁴³

Dr. Temple Grandin has stated that laying hens have the poorest welfare of all farm animals. Grandin contends that the feather-pecking and cannibalism behaviors of hens

seem to be directly related to the inability of the birds to exhibit natural behaviors such as foraging and exploration. She notes that chickens housed on litter exhibit less feather pecking. Grandin concludes, "If we can make their (laying hens) lives better by giving them simple pleasures inside their cages and pens, we have to do it."²⁴⁴

Battery cages have been banned in the Europe Union, Switzerland, and New Zealand, as well as California and Michigan in the U.S.²⁴⁵ In 2008, California voters approved a ban on the use of cages after January 15, 2015. In 2009, Michigan passed a law to phase out cages by 2019. Ohio placed a moratorium on the construction of new cage systems for egg production in 2010.²⁴⁶

In 2011, UEP and the HSUS agreed to support federal legislation (Egg Products Inspection Act Amendments, H.R. 1731 and S. 820) to improve conditions for egg-laying hens, including phasing in enriched or furnished cage systems that would double the amount of floor space per hen.²⁴⁷ As part of the agreement, the HSUS agreed to stop state ballot initiatives to ban battery cages.²⁴⁸ The agreement was opposed, however, by several farm-state senators and leaders from the beef and pork industries. Those opposed feared that the egg-industry reform bill would stop the passing of the larger farm bill. The egg-reform bill was not included in the Agricultural Act of 2014.²⁴⁹ In February 2014, the UEP announced that it would not renew its agreement with the HSUS to pursue federal legislation changes to egg production.²⁵⁰

INTENSIVE CONFINEMENT: OVERCROWDING IN THE BROILER INDUSTRY

A typical grow-out house, at 400 feet long and 40 feet wide, holds 20,000 birds, though stocking densities vary according to the types and sizes of birds. The high density of birds can generate large amounts of animal waste and dust that causes stress for the birds, reduces growth, and inhibits egg-laying performance. Exposure to high levels of ammonia has also been shown to damage the birds' eyes and respiratory systems as well as cause contact lesions or dermatitis.²⁵¹

Even in lower-density situations, broiler chickens naturally congregate near walls, corners, barriers, and equipment, which causes birds to crowd each other. The crowding reduces air flow and floor-litter quality.²⁵² Some farms have changed litter, reduced flock densities, and improved



LIVESTOCK *Chickens*

ventilation systems to address the crowding issues and welfare concerns.²⁵³ In a recent large-scale commercial study that compared battery cages, furnished cages, and loose housing with litter, it was shown that there was poorer air quality in the aviary loose housing system when compared to the battery cages or enriched colony house.²⁵⁴

Aggression and feather plucking are two behaviors that can also occur in stressed and overcrowded chickens and are more likely to show on broilers and free-ranging chickens because of their housing. Farmers often reduce daylight in the housing or trim beaks to minimize aggressive behavior among chickens. Research has shown that providing chickens with enough room to roll in the dust and clean their feathers reduces feather-plucking behaviors.²⁵⁵

DISPOSAL OF MALE CHICKS

Laying hens have a production life span of approximately one to two years. Female hatchlings are used to replenish the laying-hen population. Male chicks, however, are not needed in egg production and are typically not used in meat production because they have not been genetically selected for fast growth and increased breast muscle. Male chicks are often euthanized immediately after hatching.²⁵⁶ Methods of euthanasia for chicks suggested by the AVMA include cervical dislocation, gassing, and maceration.²⁵⁷



45-day-old chicken trapped beneath the slaughter line

BEAK TRIMMING

Beak trimming allows producers to reduce pecking, feather pulling, cannibalism, and mortality in the confined housing environment of hens. Beak trimming is typically performed with a hot blade on hens younger than ten days, and an infrared laser is often used on day-old chicks. According to the UEP Animal Husbandry guidelines, “Welfare disadvantages [of beak trimming] may include reduced ability to feed following treatment, short-term pain, perhaps chronic pain, and acute stress.”²⁵⁸

Beak trimming is criticized by animal-welfare groups as being especially painful to the birds, with deleterious effects on the birds’ ability to explore and feed.²⁵⁹ The groups contend that the practice is necessary due only to intensive confinement, overcrowding, limiting natural behaviors, and a lack of environmental stimulation of the hens.²⁶⁰

Dr. Grandin writes that beak trimming without anesthetics or painkillers is especially concerning because there are many pain nerves in the beak. Grandin states that infrared beak treatment is more humane, as it causes less pain and distress to the chicks.²⁶¹ The UEP suggests that the selection of more docile bird breeds may reduce the need for beak trimming for behavioral reasons and that beak trimming should be used only when absolutely necessary.²⁶²

INDUCED MOLTING

By inducing molting, a producer can extend the reproductive cycle of the hen, control the timing of and sustain egg production, and improve egg quality.²⁶³ Molting has traditionally been induced by withdrawing feed from four days to as long as two weeks.²⁶⁴ Recognizing the welfare implications for this practice, the UEP funded research to develop alternative practices to accomplish molting by means other than feed reduction. The UEP guidelines now state that only non-feed-withdrawal molt methods—such as using specialized feed for non-producing hens and minimizing exposure to light—will be permitted for UEP members.²⁶⁵ It should be noted, however, that adherence to UEP guidelines is voluntary, and some egg producers may still use feed withdrawal to induce molting.

RAPID GROWTH

In the 1970s, a chicken reached its four-pound market weight by ten weeks of age.²⁶⁶ Broilers today reach a mar-

ket weight of five to six pounds by around six to seven weeks.²⁶⁷ The change in growth rate is due to a special diet and decades of selective breeding. It should be noted that growth-inducing drugs are not legally allowed with commercial poultry.²⁶⁸

Breeding selection of rapid-growth birds has led to producing birds that are too heavy for normal movement. Broilers’ skeletal frames are often unable to keep up with the rapid growth, causing the chickens to develop painful leg disorders.²⁶⁹ Moreover, research has shown that fast-growing broilers have more leg problems than slow-growing ones.²⁷⁰ Dr. Temple Grandin writes, “In some of the worst cases, a chicken’s feet are rotated almost ninety degrees and the legs are twisted....The industry has created chickens that have chronic pain in order to get birds that grow at the far outer limits of what is biologically possible.”²⁷¹

To maintain their fast growth, broiler chickens often want to eat much more than chickens in the 1970s. The increase in appetite, however, can easily lead to an obese, infertile bird. To offset obesity and infertility, farmers restrict feed to this birds. Dr. Grandin summarizes the issue, “These birds have low welfare no matter what you do. If you let them eat all they want, they have bad welfare and if you don’t let them eat all they want, they also have bad welfare. The industry is going to have to breed parent stock with smaller appetites. There’s no other way to fix the problem.”²⁷²

HANDLING AND TRANSPORT

After one to two years of productive egg laying, hens are killed on-site as “spent” hens or transported to slaughter facilities.²⁷³ Hens, whose bones may be weak from inactivity and confinement in cages, can be injured as they are removed from their cages.²⁷⁴ Dr. Ian Duncan, Emeritus Chair in Animal Welfare, University of Guelph, Canada, notes, “The disposal of spent laying hens is probably the most serious welfare problem confronting the poultry industry today.”²⁷⁵

The UEP acknowledges that hens used in table-egg production often have weak bones caused by the eggshell-formation process.²⁷⁶ The UEP notes that this weakness results in a high risk of bone fractures during handling and transportation of the hens. To avoid injury to the birds, the UEP Animal Husbandry guidelines include catching methods that avoid piling or overcrowding birds,

training staff to minimize bone breakage or injury when handling the birds, and having cage and container doors large enough to permit easy passage of the hens.²⁷⁷ There are also new cages in which the whole front opens so that hens do not need to be pulled through small doors. The UEP does not include the new cages in its guidelines.

Catching broilers by hand can be a grueling and dirty job for workers. As workers become fatigued, the handling of birds may also become rougher.²⁷⁸ Once crated, chickens are loaded onto trucks and transported to the slaughter facility. Transport stressors include noise, vibration, motion, overcrowding, and exposure to temperature extremes.²⁷⁹ Dead-on-arrival rates are affected by transport time, temperature, stocking density, bird body weights, and weather conditions such as wind and rain, and range from 0.12 to 0.46% of birds.^{280, 281} Heat stress is a primary cause of death for birds in transport. Mortality rates increase with high stocking densities, where birds have limited or no space for behavioral or postural thermoregulation.²⁸²

SLAUGHTER

At the slaughter facility, chickens are removed from crates and shackled upside down by their legs before they are electrically stunned, bled out, and finally enter a scald tank, which helps with defeathering.²⁸³ Inverted shackling has been shown to be stressful and potentially painful for broilers.^{284, 285} “They are literally throwing the birds into the shackles, often breaking their legs as they do it,” said Charles “Stan” Painter, a federal poultry inspector and chairman of the National Joint Council of Food Inspection Locals. “They are working so fast, they sometimes get just one leg in the shackles. When that happens, the chickens aren’t hanging right... They don’t get killed, and they go into the scald tank alive.”²⁸⁶

According to NCC Guidelines, no live birds should enter the scald tank. Birds are stunned with a mild electric current before being euthanized with an automatic knife that cuts the carotid arteries.²⁸⁷ The birds then bleed out before entering a scald tank.²⁸⁸ While monitoring measures ensure birds are dead before entering the scald tank, the speed of the processing lines increases the likelihood that birds can enter the scald tank alive.²⁸⁹ Birds that enter the scald tank alive are identified by red skin, which occurs when the bodies



LIVESTOCK *Chickens*

are not drained of blood during the slaughter. The NCC and the FSIS state that the number of live birds entering the scalding has decreased over the years and is a small fraction of the billions of chickens slaughtered each year.²⁹⁰

The HSUS recommends controlled-atmosphere stunning and controlled-atmosphere killing systems in which birds are exposed to lethal concentrations of gases, making them unconscious or killing them before they are handled. This process eliminates the need to shackle live birds and also reduces the risk of ineffective stunning.²⁹¹

While birds are not protected under the federal Humane Methods of Slaughter Act, USDA inspectors can cite a facility for inhumane handling under the Poultry Products Inspection Act if they think birds are prepared in a way that is unfit for human consumption.²⁹² The Animal Welfare Institute and Farm Sanctuary investigation of U.S. poultry slaughter-facility violations from January 2011 to July 2012 showed that 35 percent of citations were for live birds entering the scalding, 28 percent were for improper handling, and 10 percent for inadequate cutting for bleed out.²⁹³

Factors influencing the number of birds improperly handled during the slaughter processing can include too low voltage on the electric stunner, birds missing the

automatic knife due to being undersized or incorrectly shackled, and the high speed of the processing line.²⁹⁴ In an effort to reduce food-borne pathogens, the USDA is finalizing a proposal that would allow poultry companies to increase their processing-line speed from 140 to 175 chickens per minute.²⁹⁵

Of the four federally inspected poultry slaughter facilities in Oklahoma, birds are killed using electrical stun baths to render the birds unconscious before their necks are cut.²⁹⁶ It is reported that some poultry slaughter plants use carbon-dioxide-gas stunning systems, though there are none in the Midwest.

Birds that die before slaughtering, at either growing or processing facilities, are referred to as cadavers and are not allowed to enter the food supply.²⁹⁷ In 2013, FSIS records show roughly 680,000 cadavers in the poultry system, down from around 730,000 in 2012.²⁹⁸ The NCC states that the percentage of chickens affected by the violations reported by the Animal Welfare Institute and the Farm Sanctuary is exceedingly small (three-millionths of one percent of the 12.8 billion chicken harvested during that time), but that the industry is working to get that number as close to zero as possible.²⁹⁹

“COCKFIGHTING WAS ILLEGAL in Oklahoma until 1963, when a judge ruled that chickens are not animals and therefore unprotected by anticruelty laws.”

—U.S. NEWS & WORLD REPORT (DECEMBER 6, 1999)

COCKFIGHTING

Cockfighting has been around for centuries and was widespread on the American frontier, especially in the South. In cockfighting, roosters, who are bred specifically for fights, are placed in a ring and encouraged to fight to the death. Fights typically take place in round arenas, or cockpits, with the audience surrounding the area and placing bets on the winner of the fights. The natural spurs of the roosters are often heeled with metal gaffs that are curved and sharpened or with a slasher that is like a sharp blade.³⁰⁰ Cockfights typically end in the death of one of the roosters after a bloody and violent fight.³⁰¹ The American Society for the Prevention of Cruelty to Animals, the HSUS, and law-enforcement officials state that cockfighting is often associated with other crimes, including gambling, illegal drugs and weapons, and gang activities.³⁰²

Attempts to prohibit cockfighting in Oklahoma failed in 2000 and 2001, but in 2002 voters approved measures that made cockfighting a felony. Oklahoma was the forty-eighth state to ban the practice.³⁰³ The cockfighting ban has been appealed on several occasions, including arguments of the legality of upholding the ban on American Indian lands.³⁰⁴ In 2004, both the Oklahoma Supreme Court and the U.S. Supreme Court rejected appeals to overturn Oklahoma’s ban on cockfighting.³⁰⁵ Bills on reducing the penalty for cockfighting to a misdemeanor have been proposed since the 2002 enactment.³⁰⁶

In spite of the state ban and possible felony conviction, arrests for cockfighting and breeding of fighting roosters continue. In April 2014, a cockfight was discovered when officials investigated drug-smuggling operations in Colcord, Oklahoma. The police seized more than five pounds of crystal methamphetamine, four pounds of marijuana, large amounts of cash, and several guns. Twenty game birds were found on the property, including roosters wearing blades.³⁰⁷ In July 2014, investigators found seventeen roosters and hens, along with metal spurs, steroids, mirrors, scales, and a fighting ring, behind an abandoned house near Choctaw, Oklahoma. Trace Lyons, an Oklahoma City animal-welfare field-unit supervisor, stated that there is a prevalence of money, drugs, and guns involved in these operations, and those activities help perpetuate the fights.³⁰⁸

RECOMMENDATIONS

Areas of improvement for poultry in Oklahoma include:

Retrofitting cages to allow for more movement; a secluded nest box, perches, and an area to scratch should be provided.

Support humane handling of birds during slaughter, and mandate practices that ensure birds are unconscious when scalded.

Support research that enables producers to allow birds to reach market weight but does not harm the skeletal structure of the birds.

Advocate for poultry to be covered under the Humane Slaughter Act.



THE WASHINGTON POST/GETTY IMAGES

In 2002, Oklahoma became the forty-eighth state to ban cockfighting.



LIVESTOCK *Sheep & Goats*



JOHN DUNCAN/GETTY IMAGES

HISTORY AND BACKGROUND

In Oklahoma and other states, cattle and sheep arrived as early as the 1820s, providing food and clothing for early settlers.³⁰⁹ In the U.S., sheep numbers were highest in 1884 at fifty-one million head, but have dropped steadily as wool revenues and sheep operations have declined.³¹⁰ The USDA 2012 Census of Agriculture reports the entire U.S. sheep and lamb inventory is more than five million head.³¹¹

Sheep are primarily managed on outside pastures, though confinement may be required during the birthing of lambs. Most producers manage ewes—female sheep—to lamb once a year, typically in the spring. With a gestation period of approximately five months, lambing can sometimes occur more frequently. Ewes often have twins at each lambing. All lambs are tail docked, and male lambs are castrated at seven to ten days of age. Tail docking is done to prevent the accumulation of fecal matter around the tail and also to avoid clipping the tail when shearing the wool.³¹²

Sheep and lambs are typically raised for meat and/or wool production.³¹³ The age and weight at which lambs are taken to slaughter varies because markets exist for both heavier and lighter lambs. Typically lambs are sent to market between two to fourteen months of age.³¹⁴ The demand for sheep meat is relatively low in the U.S., though the consumption of lamb is more common among certain ethnic populations.³¹⁵

Goats are raised for meat, milk, or fiber.³¹⁶ While not common in the U.S., goat meat is consumed in many other parts of the world. Goat meat is often made available through various ethnic and specialty markets in the U.S., including direct marketing off the farm. Goats are considered to be efficient at converting low-quality forage into meat, milk, and hides and are adaptable to a wide variety of environments.³¹⁷

Dairy goats are raised for their milk, which is sold fresh, raw, pasteurized, condensed, or dried and can be used to make cheese, butter, yogurt, ice cream, and other products such as soap. As with dairy cows, dairy goats are also used

for meat, and their hides may be used as leather. Dairy goats are commonly milked twice a day, seven days a week.³¹⁸

Uncircumcised male goats are aggressive and emit strong odors, especially during breeding season. Female goats typically give birth twice a year, to between one to three kids. The young goats are weaned at two to three months of age. Goat kids are sent to market between four to five months of age. Some goats are sold before weaning directly to the consumer from the farm or to a specialty market.³¹⁹

WHERE THEY ARE FOUND

In 2013, Oklahoma producers owned around 75,000 head of sheep and lambs. The value of the sheep was more than \$16.7 million dollars. Breeding sheep made up 79 percent of the state's population; the remaining 16,000 were sheep and lambs raised specifically for meat.³²⁰ In January 2014, the number of sheep and lambs dropped to 65,000 head, down 13 percent from the previous year, and the 2013 lamb crop was down 10 percent from 2012.³²¹

Sheep inventories were highest in Kay and Craig Counties in north and northeast Oklahoma, respectively. The 2012 USDA census reported that 1,779 Oklahoma farms held sheep and lambs. Seventy-one percent of the farms had a sheep inventory between one and twenty-four head, and 513 farms had inventories between twenty-five and 999 head. Twenty-three percent (12,265) of the sheep and lambs in Oklahoma were on farms with 300 or more head.³²²

In 2012, Oklahoma ranked twenty-eighth in U.S. wool production. In 2013, 24,000 sheep and lambs were shorn, producing 150,000 pounds of wool. These numbers were unchanged from 2012 production. The total value of wool sold dropped, however, from \$105,000 in 2012 to \$90,000 in 2013.³²³ Overall, sheep numbers in Oklahoma are relatively low when compared to other livestock industries.³²⁴ Most goats in Oklahoma are meat goats. In 2013, there were 112,100 goats reported on Oklahoma farms. Ninety-five percent of the goats were raised for meat, and the other 5 percent were milk goats.³²⁵ There are also a small number of Angora goats in Oklahoma, raised for their mohair wool.

Langston University's E (Kika) de la Garza American Institute for Goat Research in Langston, Oklahoma, is one of the top research institutions for goat production in the U.S. The institute researches goat production—including

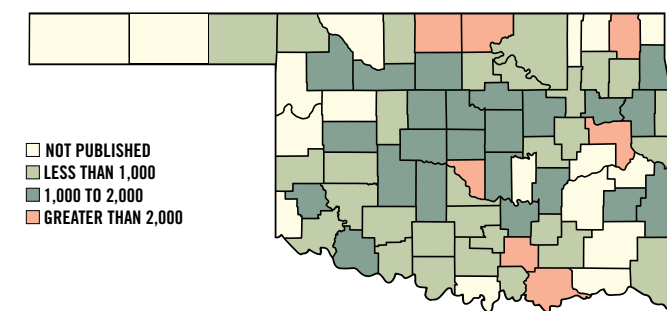


FIGURE LIVESTOCK 9: Oklahoma sheep inventory (January 1, 2013).

(Source: Oklahoma Agricultural Statistics 2014, USDA-NASS, ODAFF)

the production of meat, dairy, and fiber—with the goal of advancing the goat industry. Research findings are made available to goat producers through online materials (including trainings and educational materials), a goat library, and various extension events throughout the year.³²⁶

In August 2014, Langston University loaned Oklahoma City nineteen goats to control weeds and brush along difficult-to-mow slopes on six acres surrounding the Hefner Canal. The plan was developed to help save fuel and emissions from mowers as well as prevent damage to the canal banks by the machines. The goats at the canal are protected by a guard dog and are checked daily by city personnel.³²⁷ The goats are popular with visitors to the area and are the subject of many social-media posts.³²⁸

OVERSIGHT GROUPS

During 1992 and 1993, the American Sheep Industry Association, in conjunction with the USDA, developed an industry audit program called the Sheep Safety and Quality Assurance Program (SSQA). The audit examines all phases of sheep production, including meat production, wool, pelts, milk, and lanolin. The SSQA program is designed to educate producers on total quality management in sheep production. The program also serves as a verification process assuring that producers are following industry standard criteria, including requirements on the use of feed additives and medication, veterinarian assistance, record-keeping, feed storage, and handling and transportation.³²⁹



LIVESTOCK *Sheep & Goats*

WELFARE ISSUES

Handling

The SSQA guidelines state that improper handling and transportation of sheep can lead to bruising, broken bones, pelt and wool damage, and the death of the animals. To circumvent these problems, SSQA standards suggest using a reputable, experienced sheep hauler and avoiding overcrowding to reduce injuries and stress to the animals.

Other recommendations for improving handling of sheep include fasting the sheep for twelve hours before loading, because fasted sheep are easier to load, produce less urine and manure, and are less likely to lie down in the trucks, reducing their likelihood of being stepped on or crushed. The SSQA also provides information on sheep behavior that can assist in facility design, equipment use, and handling such as that sheep have a wide angle of vision, understand their flight zone, tend to move toward light, and are sensitive to noise.³³⁰



RALPH BELOCH/GETTY IMAGES

Castration

Castration in lambs and goats is typically done to control breeding, facilitate mixed gender flocks/herds, decrease aggressive male behavior, and improve meat quality.³³¹ As with cattle, research suggests that lambs castrated at older ages, experience greater pain, distress, and inflammation.³³² Surgical castration has been found to be the most painful method of castration, resulting in a longer distress response among lambs.³³³

Intensive Farming

Sheep and goats are typically managed outdoors and not intensively farmed, especially in Oklahoma. However, the Animal Welfare Institute states that only around 16 percent of U.S. sheep operations use pasture-based practices; the rest of sheep are raised using feedlots or intensive farming conditions similar to those used for other livestock.³³⁴

When sheep are intensively farmed, welfare concerns are similar to those in other species, including the ability to engage in natural behaviors, early separation of young from their mothers, stress from high stocking densities, and temperature and air-quality regulation.³³⁵ Other welfare concerns are related to castration, tail docking lambs, and disbudding or dehorning goats, both in terms of the need for these procedures and the lack of pain alleviation when these procedures are performed.³³⁶

Tail Docking

Lamb's tails are typically docked for health and hygiene reasons, and it is a standard practice in many countries, though some breeds of sheep (hair sheep, fat-tailed sheep, rat-tailed sheep) are less likely to have their tails docked.³³⁷ In the U.S., 88 percent of sheep operations perform tail docking.³³⁸ Tail docking of lambs is typically done at one to three weeks of age. It is recommended that a portion of the tail remain, as the pain is more severe when the tails are docked too close to the body and can lead to rectal prolapse.³³⁹ Ultra-short docking is sometimes used among show sheep in order to make the lambs look more heavily muscled.

Some state youth organizations, including the North Carolina and West Virginia 4-H programs, have developed minimum acceptable docking lengths.³⁴⁰ Bart Cardwell, sheep-center manager at Northern Oklahoma College,

“FROM SUNRISE TO sunset, I was in the forest, sometimes far from the house, with my goat who watched me as a mother does a child. All the animals in the forest became my friends, even dangerous and poisonous ones. Thanks to my goat-mother and my Indian nurse, I have always enjoyed the trust of animals—a precious gift.” —DIEGO RIVERA

states that the research used to link ultra-short tail docking to health concerns such as rectal prolapse is not based on sound scientific research. Cardwell believes that issues associated with ultra-short docking are manageable through good sheep production practices. At this time, there are no 4-H or FFA organizations in Oklahoma that have policies regarding minimum tail lengths in show sheep.³⁴¹

Dr. Jerry Fitch, sheep specialist at the Oklahoma Cooperative Extension, states that initial research findings that connect tail-docking lengths to incidences of rectal prolapse may have been confounded by the use of lambs from genetically predisposed rams. Fitch notes that rectal prolapse is a problem in sheep, including those in Oklahoma, but he believes the problem is based in genetic tendencies combined with sheep coughing caused by environmental irritants such as dust and dirt. As sheep superintendent for the Oklahoma Youth Expo, Fitch says those in the show industry watch for indications of prolapses, and if identified, a sheep will be disqualified from competition and sent for veterinary treatment.³⁴²

Dehorning

Most goats begin growing horns soon after birth. Goat horns serve the animal by helping in social interactions, in thermoregulation, and as tools for foraging.³⁴³ Dehorning is the process of removing horns that are already present, and disbudding destroys horn cells to prevent any growth at all.

Dairy goats and other goats that are frequently handled are commonly disbudded to prevent the growth of horns. Meat goats are handled less and are usually not disbudded. Horns are thought to increase the incidence of injury among goats, other livestock, and people, and can cause animals to get stuck in feeders and fences. An electric disbudding iron is commonly used for the procedure, at three to seven days of age.³⁴⁴

Dehorning is more invasive and causes more pain for the animal. Dehorning requires sedation or local nerve blocks, can potentially cause excessive bleeding, and requires bandaging, so it is recommended that only a veterinarian perform the dehorning. Methods of dehorning include the use of bands or a knife and may be extremely painful and cause fractures or brain injuries.³⁴⁵

RECOMMENDATIONS

The areas of improvement for lambs and goats in Oklahoma include:

Encourage castration practices that minimize pain for male goats and sheep.

Support humane handling practices for goats and sheep.

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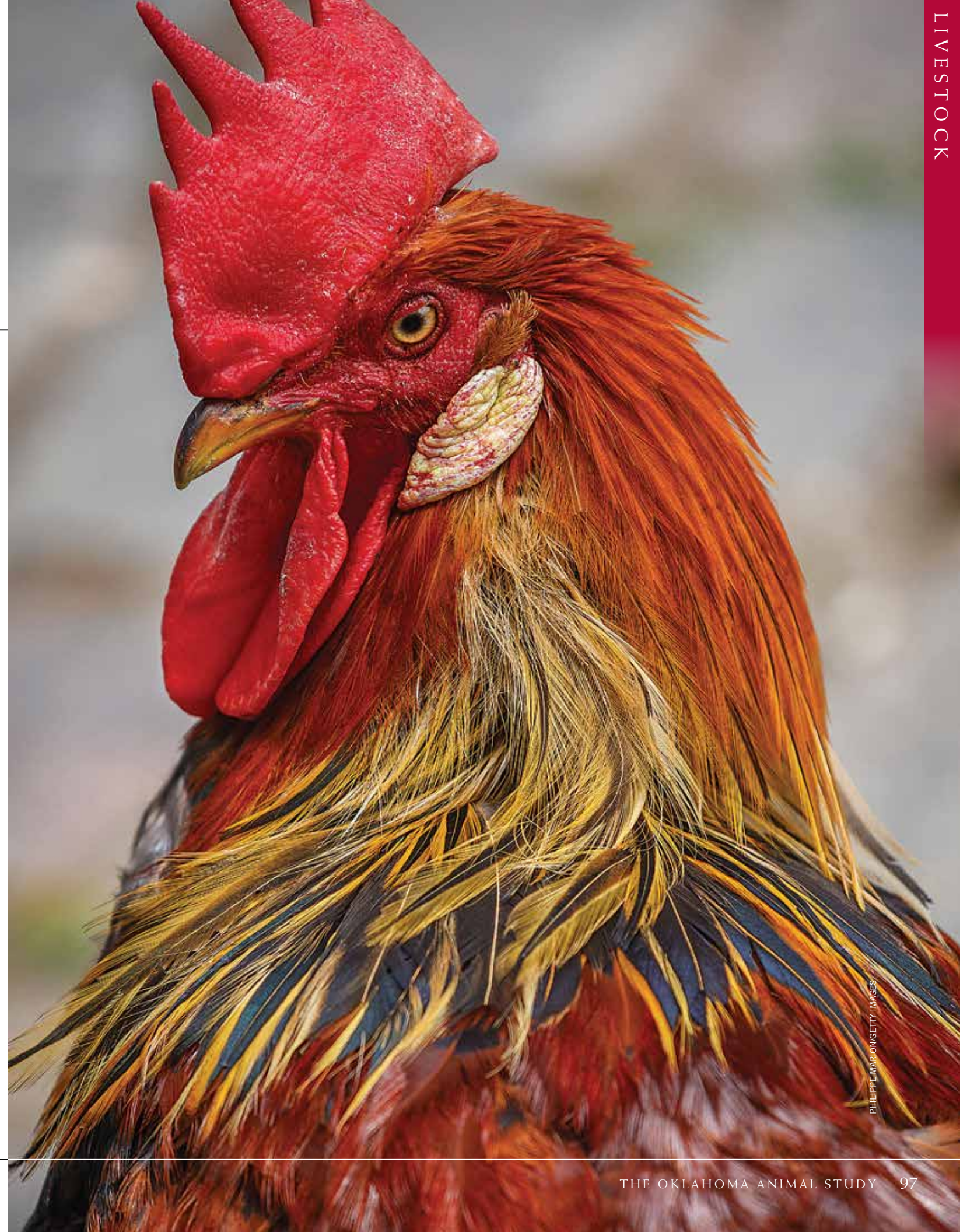
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PHILIPPE MARONIGGETTY IMAGES



EQUINES

First introduced to North America by Spanish explorers in the eighteenth century, the horse has long been an iconic symbol of the American West. Today, the horses of Oklahoma are used for work, competition, and pleasure, and are viewed as pets or livestock. Varied as their uses are, wild and domesticated horses face a variety of welfare issues. Oklahoma has more horses per capita than any other state in the nation.¹ A primary concern for all horses in Oklahoma, and the nation, is the large population of horses at risk for neglect or homelessness.

TIM FLACH



EQUINES

BACKGROUND

Horses have long been integral to the history of Oklahoma and its people. American Indians used horses on trade routes and for hunting, while ranchers and cowboys used them to work cattle across the country. As settlement populations grew, mules, donkeys, and horses played an increasingly key role in farming and hauling everyday materials. In the Oklahoma land runs, mules outpaced horses in popularity, which led Oklahoma City to become the main regional marketplace for mules. Demands for mules continued to increase during World War I, when many Oklahoma mules and horses were sold to European countries and supplied to the U.S. Army.²

As the popularization of motorized vehicles decreased the need to use horses and mules for farm work and carrying materials, horse industries such as shows and competitive racing developed in the state and revived the demand for horses. Moreover, the competitive horse industries exponentially increased the diversity of horse breeds in the U.S. By the early twenty-first century, Oklahoma was known as a national center for the horse industries, with almost every horse breed raised by Oklahomans, including Percherons, American saddlebreds, Thoroughbreds, and American quarter horses.³

WHERE THEY ARE FOUND

In 2013, the U.S. led the world in horse population, holding an estimated 10.2 million head. China and Mexico came in second and third, with 6.8 and 6.4 million head, respectively. The American Veterinary Medical Association (AVMA) estimates that 4.9 million of U.S. horses are kept as pets and are not part of racing or other competitive equine industries.⁴

In 2012, the AVMA reported the total number of horses in Oklahoma at around 269,700, a decrease from 326,000 head in 2005. A year later, the Oklahoma Equine Alliance's *Oklahoma Equine Industry Study* (2013)—a report outlining the economic impact of racing, recreational horse ownership, rodeos, veterinary services, tourism, and farming equipment—showed the majority of horses (255,521) were used for recreational activities such as rodeos and equestrian shows.⁵

The 2012 USDA Agriculture Census reported Oklahoma as ranking second in the nation for horses residing on farms (158,918), roughly half the number of farm horses in

Texas (395,818).⁶ It should be noted that the USDA Census number excludes horses used solely for racing, showing, or recreation, or on farms that produce less than \$1,000 in agricultural products or sales annually. Oklahoma had the third-largest population of donkeys, mules, and burros (4,786) in the U.S. The total sales for horses in the state in 2012 was an estimated \$41.75 million.⁷

Oklahoma has horse racetracks in Oklahoma City, Tulsa, and Claremore, and more than 800 breeding, training, and racing enterprises.⁸ The Jockey Club, a breed registry for Thoroughbreds in the U.S., Canada, and Puerto Rico, reported 1,079 races in Oklahoma with \$22 million in purses in 2013. The average purse size per race was \$20,925.⁹ For comparison, New York, known for having one of the best racing circuits in the U.S., had 3,752 races in 2013 and \$179 million in purses, with an average purse size of more than \$47,000.¹⁰

Today, Oklahoma hosts more national and world championship horse shows than any other state.¹¹ Oklahoma has an active industry of breeding, training, boarding, racing competitions, rodeos, and riding operations.¹² In 2005, the American Horse Council Foundation reported that quarter horses represent nearly 60 percent of Oklahoma's horse population and Thoroughbreds 7 percent, with the remaining 33 percent comprised of a diversity of other registered and unregistered breeds.^{13, 14}

Oklahoma hosts numerous state-level horse associations and horse clubs with active memberships, including the Oklahoma Stock Horse Association, Oklahoma Reining Horse Association, Oklahoma Buckskin Horse Association, Oklahoma Pinto Horse Association, Morgan Horse Association of Oklahoma, Oklahoma Quarter Horse Racing Association, Oklahoma Miniature Horse Club, and Oklahoma Equestrian Trail Riders Association, among others. A variety of regional, state, national, and international horse events are also held in Oklahoma, including the International Finals Rodeo, the Greater Oklahoma Hunter Jumper Horse Show, the National Reining Horse Association Derby, the American Quarter Horse Youth Association World Championship, and the Grand National & World Championship Morgan Horse Show.¹⁵

WILD HORSES/BURROS

Under regulations of the Wild Free-Roaming Horses and Burros Act of 1971, the federal Bureau of Land Manage-

“I DISCOVERED THAT *the horse is life itself, a metaphor but also an example of life's mystery and unpredictability, of life's generosity and beauty, a worthy object of repeated and ever changing contemplation.*”—JANE SMILEY

ment (BLM) conducts an annual population inventory to estimate the number of wild horses and burros roaming BLM-managed lands in the West. Wild-horse populations are not included in the USDA Census information noted in the previous section. The BLM determines the Appropriate Management Level (AML) for the wild horses, which is the number of wild horses and burros that the land and the public-land resources can support. In March 2015, the BLM reported the U.S. wild-mustang population at 58,150 head, an increase of 18 percent from 2014. The BLM also stated that the 2015 wild-horse population was more than double the AML of 26,715 head.¹⁶

In order to reach the BLM's optimal population numbers, government agents round up wild horses and burros from Western public rangelands several times a year. Older wild horses are then sent to long-term holding pastures to live out their remaining years, while younger horses are placed in short-term holding facilities until adopted. As of June 2015, BLM facilities are located in Arizona, California, Colorado, Idaho, Illinois, Kansas, Mississippi, Montana, Nebraska, Nevada, Oklahoma, Oregon, Utah, Wisconsin, and Wyoming.¹⁷

Oklahoma's BLM field office manages 7.4 million acres of federal land and the minerals rights for that land in Oklahoma, Kansas, and Texas. The Oklahoma office also administers roughly 20 percent of the annual horse adoptions for the entire bureau. Oklahoma has one short-term BLM holding facility, in Pauls Valley. Unlike other short-term facilities which hold the horses in corrals, the Pauls Valley facility has a pasture housing area. Its twelve pastures cover 400 acres and can accommodate up to 550 wild horses and burros.¹⁸ Horses stay at this facility until they can be shipped to adoption locations in the Great Plains states and the Southeastern U.S., or are adopted at events on site.¹⁹ Oklahoma has fourteen of the twenty-four long-term holding pastures in the country. Oklahoma's long-term facilities have holding capacities ranging from 200 to 3,400 horses.²⁰

The BLM facilities at Pauls Valley, Woodward, and Ardmore host adoption events several times a year.²¹ Adoption of BLM wild horses or burros requires adopters to complete an application that describes the size and condition of their corrals, shelters, and trailers along with plans for feed and water for the animal. The minimum adoption fee

is \$125 per animal, but most adoptions employ competitive bidding to establish the fee.²² The adoption agreement prohibits inhumane treatment, selling, or branding, removing or altering freeze marks, and commercial exploitation of wild horses or burros by the adopter. BLM approval is required before animals can be moved away from the approved property for more than thirty days. If the adopter properly cares for the wild horse for one year, he or she are eligible to receive ownership of the animal from the federal government.²³

Another Oklahoma facility associated with the BLM wild horses is the James Crabtree Correctional Center in Helena, Oklahoma. The correctional center hosts the Inmate Wild Horse Adoption Program, which allows inmates to train wild horses that will be adopted out. The program keeps approximately twenty horses on site for 90 to 150 days. Horses in the program are adopted by pre-approved applicants for a fee of \$500.²⁴

Saving America's Mustangs is a nonprofit organization with a mission to raise awareness for wild Mustangs through a web site, letter campaigns, merchandise, and the development of a wild-horse eco-sanctuary and living museum. The nonprofit owns 600,000 acres in Nevada which will serve to house wild mustangs and allow visitors to see the animals.²⁵



Oklahoma Choctaw ponies



EQUINES

CURRENT FEDERAL AND STATE LAW

In the 1970s, two federal laws were enacted to safeguard horses in the U.S. The Horse Protection Act of 1970 prohibits the showing, sale, auction, exhibition, or transport of sore horses, and in 1971, the Wild Free-Roaming Horse and Burro Act was enacted to protect and manage wild horses and burros as the “living symbols of the historic and pioneer spirit of the West” on public lands.^{26,27}

Current federal laws do not ban the use of horses, mules, and burros for food. Before the closure of the last domestic slaughter plant in 2007, U.S. horse-slaughter facilities were subject to the USDA’s Food Safety and Inspection Service to ensure that meat and meat products were safe and properly labeled, and to enforce the Humane Slaughter Act.²⁸

In March 2013, Oklahoma’s fifty-year ban on horse-slaughter plants was lifted. Currently, if USDA funding for required horse-slaughter inspections is ever reinstated, Oklahoma will allow horse-slaughter facilities to operate, process, and export horse meat for human consumption to foreign markets. Although a survey by the University of Oklahoma SoonerPoll showed a majority of Oklahomans were against the repeal, the bill to repeal the ban received bipartisan support and was approved by wide margins in both the Oklahoma House and Senate.^{29,30}

BUREAU OF LAND MANAGEMENT PROGRAM

The BLM Wild Horse and Burro Program has received criticism for a variety of reasons. In 2011, Oklahoma’s then U.S. senator Tom Coburn complained that the \$71.8 million annually appropriated to the program could be better spent in other areas of need. The federal government pays approximately \$5.50/day for each horse and burro in short-term holding and around \$1.30/day per horse in long-term pasture facilities.³¹ A 2013 National Academy of Sciences report also stated that current roundup methods, and the paying of private citizens to care for surplus wild animals, are expensive and unproductive.³²

Animal welfare groups have voiced concern that wild horses have lived and co-evolved on North American landscapes for hundreds of years and are capable of remaining on the land.³³ Animal welfare activists state that recent investigations have revealed that “kill buyers” are purchasing wild horses from BLM auctions and then selling the animals to Mexican horse slaughter operations.³⁴

Both the American Wild Horse Preservation Campaign and Saving America’s Mustangs oppose the practice of rounding up wild animals, because the method can cause undue stress, injuries, and death for the horses; the practice also disrupts herd and family structures by regrouping roundup horses according to sex and age. Furthermore, both groups contend that too much money is used for roundups, while too little funding is dedicated to using contraception to effectively manage herd populations.³⁵

The Humane Society of the United States (HSUS) has stated that short-term and long-term BLM facilities are not in acceptable conditions to care for the wild animals. In 2013, the HSUS urged the BLM to immediately install a shelter for horses in the Palomino Valley National Adoption Center near Reno, Nevada, where temperatures were reaching record highs. At the time, nearly 1,800 wild horses were held at the facilities with no shelter.³⁶

In 2011, the BLM announced plans to make fundamental reforms to its wild-horse program, including reducing the number of wild horses removed from the ranges, improving science-based management decisions, increasing adoptions, expanding fertility controls, and improving humane care and handling procedures.³⁷ Dr. Kathryn Holcomb, animal-welfare postdoctoral scholar, and Dr. Carolyn Stull, animal-welfare specialist—both with the University of California Davis School of Veterinary Medicine—worked with the BLM to develop a tool for measuring welfare assessment and standard of care. The tool allows the BLM to document use of handling aids and electric prods, prevent orphaning of foals in rangelands, monitor environmental conditions and availability of hay and water, and estimate the rate of herd movements in the wild.³⁸

In January 2013, the BLM issued Instruction Memorandum No. 2013-059, outlining specific handling standards to reflect the BLM’s “compassion and concern for the animal’s well-being and welfare needs.” The BLM has recently mentioned plans of expanding the assessment tool for use in short- and long-term holding facilities—like those in Oklahoma—and would provide training guidelines for staff.³⁹

Steve Tryon, field manager at the Oklahoma field office in Moore, Oklahoma, stated that the Oklahoma BLM program is currently in the process of developing eco-sanctuaries in Oklahoma and other states the office manages. The eco-sanctuaries will be long-term pasture facilities where



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the public are able to visit the horses in environments that are more naturally suited for the animals. In May 2015, Tryon could not give a date when this type of facility would be established in the state.⁴⁰

RACING HORSES

The 2013 Oklahoma Equine Industry Study showed that there are over 14,000 racing horses and over 800 breeding and training enterprises in Oklahoma. The study also reported that the horse-racing industry, including racetracks, training, and horse-racing associations, created a direct economic impact of \$223 million to Oklahoma’s economy.⁴¹

While the industry has a positive financial impact on the state, the racing industry is criticized for a number of

animal-welfare issues. A primary concern for racing horses is the use of drugs during training and racing. In 2012, *New York Times* reporters searched the Jockey Club database for racing statistics, injury reports, and drug-test results from 150,000 U.S. races between 2011 and 2013. Their investigation showed that approximately 3,600 horses died while training or racing at state-regulated tracks—an average of twenty-four horses a week—during the three-year period.⁴²

The *Times* investigation found that a rate of incidents (injury, crashes, etc.) in every 5.2 per 1,000 starts was caused by physical problems with the horse. The rate of incidents at Oklahoma tracks was 3.3 at Fair Meadows in Tulsa, 4.5 at Remington Park in Oklahoma City, and 1.8 at Will Rogers Downs in Claremore.⁴³



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was found in all thirteen samples tested. Partially due to lack of funding, the OHRC suspended the performance of routine toxicology testing in May 2011, and toxicology testing was performed only by request on a case-by-case basis. There were no toxicology requests by the OHRC in 2012 or 2013.⁴⁶ Three cases were tested in 2014; one three-year-old was found to have exertional rhabdomyolysis, a six-year-old showed a catastrophic fracture and chronic arthritis, and a five-year-old was found to have acute iron toxicity.

Data from the Racing Medication & Testing Consortium (RMTC), viewed on June 24, 2014, showed fifty-four violations and fines at Oklahoma racetracks between March 2013 and May 2014. Violations, many for drug overages, had fines ranging from \$500 to \$2,500. For comparison, California had sixty-nine violations, and Louisiana had 103 violations during that same period.⁴⁷

In 2013, several international racing organizations—the Board of the National Horseracing Authority, New Zealand Thoroughbred Racing, and the Australian Racing Board—announced a total ban on the use of anabolic steroids on and off the track.⁴⁸ The U.S. and United Arab Emirates, however, ban steroid use only on the day a horse races. Dr. Dionne Benson, executive director and chief operating officer of RMTC, stated that with regard to the international ban the U.S. “would have a hard time banning [anabolic steroids] altogether,” since many parties in the U.S. horse industry saw certain drugs as having legitimate uses for both for treating the tears of race horses and for healing injuries and normal wear and tear.⁴⁹

In 2014, the RMTC and the Association of Racing Commissioners International created the National Uniform Medication Program, a set of rules governing the use of medications for racehorses, including laboratory testing and a penalty system designed to target trainers and owners with multiple medication violations.⁵⁰ The new model also established a central database that would monitor a trainer’s record in every jurisdiction throughout the U.S.⁵¹ As of July 2015, Oklahoma was using a RMTC-accredited lab and following an external quality-assurance program for drug and medication testing. Oklahoma was only one of a few states, however, that was not operating under the Controlled Therapeutic Medication Schedule, using the multiple-medication-violation penalty system, or requiring third-party administration of furosemide on race day.⁵²

The Oklahoma Horse Racing Commission (OHRC) annual necropsy report showed seventy horse deaths at Oklahoma tracks and training facilities in 2011, seventy-eight in 2012, sixty in 2013, and fifty-five in 2014.⁴⁴ See **FIGURE EQUINE 1** for fatality summary of Remington Park from 2009 to 2013.

While poor track surfaces and jockey mistakes are causes of racehorse incidents, drugs used to mask injuries are most often suspected in falls, crashes, and deaths. The Oklahoma necropsy reports for 2010 showed phenylbutazone (NSAID painkiller) in 79 percent of racehorse deaths. Of the fifteen horses that died at training centers in 2010, eight were found to have phenylbutazone and four had stacking of phenylbutazone and flunixin. The OHRC concluded its 2010 report by stating that the commission would need to re-evaluate “track surfaces, medication rules/enforcement and pre-race examinations ... during the 2011 racing year.”⁴⁵

Oklahoma racing toxicology analyses were only performed on thirteen racehorse fatalities in 2011, and phenylbutazone

	NUMBER OF RACE DAYS	NUMBER OF STARTS	NUMBER OF FATALITIES
2009	67	5,796	14
2010	67	6,482	9
2011	67	6,052	12
2012	67	5,865	16
2013	66	5,441	9

FIGURE EQUINE 1: Fatality summary 2009-2013: Remington Park, Oklahoma City.

(Source: www.jockeyclub.com/pdfs/eid/RemingtonPark.pdf, Fair Meadows, Tulsa, and Will Rogers Downs, Claremore, did not provide fatality statistics for the Jockey Club’s Equine Injury Database)

Oklahoma Administrative Code Title 325, Chapter 45, requires that a horse participating in a race should not have any drug or medication in its body that is a narcotic, anesthetic, or tranquilizer that could stimulate, depress, or affect its circulation, respiratory, cardiovascular, musculoskeletal, or central nervous system in order to mask the presence of prohibited drugs. Testing delays are also prohibited except when authorized by the OHRC. To ensure compliance with the prohibition of certain drugs and medications, the OHRC requires post-race tests of horses finishing first and/or from a horse the commission suspects of doping. Texas and other states require additional testing for a horse finishing second, a beaten favorite, or a horse finishing third in a race that has a gross purse of \$50,000 or more.^{53, 54}

Another health issue for racehorses is the stress racing can cause on young horses. Some horses begin racing before their bodies and bones have fully matured. This premature imposition of severe stress from racing predisposes and leads to injuries, broken bones, and sometimes euthanasia at very young ages.⁵⁵

Some argue for stricter regulations. Kathy Guillermo, senior vice president of laboratory investigations with Peo-

ple for the Ethical Treatment of Animals (PETA), suggests that horses under the age of two be prohibited from timed breezes. She also recommends that all horses be checked more frequently by a veterinarian for health issues before a race. Guillermo notes that drug-use violators should face stiffer penalties and all drug use should be disallowed one week before the race to protect the horses and riders during the races.⁵⁶

A final welfare issue facing racehorses is the high number that become unwanted after they are no longer competitive in the industry. Oklahoma horse-racing officials have noticed this problem, and in 2009, the OHRC approved the use of funds from the Oklahoma Breeding Development Fund Special Account to provide care for retired Oklahoma-bred Thoroughbred racehorses. Oklahoma Thoroughbred owners also agreed to double registration fees for Oklahoma-bred horses to help fund the program.⁵⁷

The Oklahoma Thoroughbred Retirement Program is a nonprofit organization in Blanchard, Oklahoma, that provides rehabilitation, retraining, adoption, and permanent retirement for racehorses. A similar program in Guthrie, Oklahoma—Thoroughbred Athletes—helps retrain and re-home off-track Thoroughbreds.⁵⁸



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GAITED HORSES

Gaited horses are selectively bred for their natural gaited tendencies, that is, the ability to perform the smooth-to-ride, intermediate speed, or four-beat horse gaits.⁵⁹ Soring, the “intentional infliction of pain to a horse’s legs or hooves in order to force the horse to perform an artificial, exaggerated gait,” is a common practice in the Tennessee Walking Horse show industry and has consequences for horses in Oklahoma.^{60, 61}

Chemical soring is the wrapping of chemical agents to burn and blister the pasterns, heels, or coronary band of horses. Mechanical soring methods include:⁶²

1. Pads or Stacks—horses are fitted with several tall, weighted pads, forcing the horse to stand in an elevated, unnatural position.
2. Chains—worn around the pasterns; six-ounce chains can be worn in show ring; heavier chains or chains used after chemical soring can be intensely painful.
3. Pressure Shoeing—the hoof is cut nearly to the quick before shoeing, causing the sole to come into direct contact with the stack or metal shoe.

Evidence of soring can be detected by expert observation of horse movement, the general appearance of a horse’s body, or palpation of the lower front limbs.⁶³ Gas chromatography, thermographic and radiographic imaging, blood tests, iris scanning, and hoof testers are other methods used to detect soring. Trainers and owners hide soring by using numbing agents to mask pain, training methods to teach horses not to flinch when in pain, and distraction devices such as the application of something painful in a location other than the hoof. Some trainers may even switch horses during soring inspection.⁶⁴

The Horse Protection Act of 1970 outlawed the practice of soring by prohibiting the exhibition or sale of horses exposed to soring and charged the USDA with inspecting horse shows for the practice. Violators of the act may receive a punishment of three years in prison and a \$5,000 fine.⁶⁵ Since the USDA Animal and Plant Health Inspection Service (APHIS) did not have the manpower to inspect all gaited-horse shows, the agency established a program for Designated Qualified Persons (DQPs), inspectors from within the industry, to inspect for soring.⁶⁶

Despite regulations to stop the practice, soring continues today.⁶⁷ At three national 2011 Tennessee Walking Horse competitions, 97 percent of horses examined tested positive for prohibited foreign substances, including numbing agents used in soring.⁶⁸ At the 2011 Tennessee Walking Horse National Celebration, USDA swab tests on fifty-two horses found positive findings for foreign substances on all fifty-two horses, thirty-seven of which tested positive for one or more anesthetic agents used to mask pain.^{69, 70}

A 2010 USDA’s Office of Inspector General audit of the APHIS Horse Protection Program found the DQPs inspection program was an inadequate way to protect horses from abuse. The audit cited hostile inspection environments where APHIS employees needed to bring armed security to the horse shows to protect them from exhibitors. The USDA Office of the Inspector General recommended abolishing the DQP program because of such findings.⁷¹

In 2013, the Prevent All Soring Tactics Act (PAST) was introduced in Congress to amend the Horse Protection Act. PAST would strengthen penalties and abolish the DQP program, making the USDA responsible for training licensed inspectors.⁷² PAST was endorsed by the AVMA, American Association of Equine Practitioners, American Society for the Prevention of Cruelty to Animals, HSUS, Animal Welfare Institute, and more than fifty national and state horse groups, including Tulsa’s Pure Pleasure Gaited Horse Association and the Tennessee Walking Horse Association of Oklahoma.⁷³ The 2013 bill made it only to subcommittee. A similar bill was introduced in April 2015 and was referred again to committee.⁷⁴

CARRIAGE HORSES

Carriage horses work as tourist attractions in many U.S. cities, including Tulsa and Oklahoma City. Although the issue of carriage-horse welfare has not been prevalent in Oklahoma, activists in other states, including New York, have recently worked to abolish the practice.⁷⁵

In 1989, the New York City Council established minimum care standards, licensure requirements, and regulations for the times and places of carriage-horse operations. These measures were instituted after three horses died in a 1988 heat wave. In 2010, the code was amended to include minimum stall sizes, increased veterinary examinations,

five weeks furlough for horses per year, and minimum and maximum ages for horses used to pull carriages.^{76, 77}

Oklahoma City currently has municipal ordinances (Chapter 56, Vehicles for Hire) that affect horse-drawn carriages. These ordinances require that carriages be inspected annually by the Vehicles for Hire inspector and that the operators of animal-drawn carriages have business licenses. Carriage animals must not have open sores, wounds, ailments, or lameness and must have properly trimmed and shod hooves. No stallion may draw a carriage in Oklahoma City. Animals must also be groomed and receive veterinary examinations at least once a year to certify fitness to perform work. A copy of this certificate must be filed with the Animal Welfare superintendent.⁷⁸

Tulsa municipal ordinances (Title 36, Section 145) have specific requirements for the health and welfare of carriage horses. These regulations include a veterinary examination certifying that the animal meets the requirements of suitability for the work; they also require rest breaks, meeting shoeing criteria, and temperature, carriage-load, and work-time limits. Tulsa municipal code also mandates that horses follow a preventative medicine program, including a schedule for deworming every two months, an annual dental examination, and routine vaccinations.⁷⁹



Carriage-style horses are a feature of the Pawnee Bill Wild West Show in Oklahoma.

Allie Feldman, executive director of New Yorkers for Clean, Livable, and Safe Streets, stated that most carriage horses are not given time to graze and socialize in pastures—behavioral activities that are important for a horse’s well-being. Feldman also contends that carriage horses suffer as a result from the noise and congestion in metropolitan areas.⁸⁰

Supporters of the horse-carriage industry contend that carriage horses are extremely well cared for. These proponents argue that an unhealthy and unhappy horse can affect the ability of the carriage owner to continue in his business; therefore, it is in the best interest of those in the industry to follow all safety and humane regulations.⁸¹

In 2011, a number of carriage-horse owners petitioned Oklahoma City to amend the ordinance that affected carriage horses to include a requirement for horses to be properly shod. Wendy Meyer, owner of Cameo Carriage Company, made the formal request to the Oklahoma City Traffic and Transportation Commission. Meyer cited Dr. Curtis D. Smith, DVM, who addressed the long-term damage that can occur to a horse operated on a paved surface if adequate foot protection is not provided. Smith recommended that shoes be used on all horses operating on paved surfaces. The commission agreed to the petition, and the amendment was made.⁸² Oklahoma currently has no legislation, city or state, to ban the use of carriage horses. The issue appears to be a relatively uncontested one in the state.

RODEOS

Background

Rodeo is a competitive sport that arose from the working practice of cattle herding.⁸³ Oklahoma hosts many rodeo events each year, from local Round-Up Club events to national and international championships.⁸⁴ In 2012, there were 1,050 rodeo events (fifty professional, 450 adult amateur, and 550 junior) involving 183,000 participants.⁸⁵

The Professional Rodeo Cowboys Association (PRCA) is the largest sanctioning organization of professional rodeos in the world, sanctioning 600 rodeos in thirty-nine states and three Canadian provinces.⁸⁶ Despite the popularity of the sport, significant controversy surrounds animal-welfare issues. Specific rodeo events such as calf roping, steer bust-



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ing, steer wrestling, bull riding, and saddle bronco riding have been criticized as being painful and dangerous to the animals involved.⁸⁷

Welfare Issues

The PRCA requires on-site veterinarians and professional judges at its sanctioned events to inspect each animal, and maintains that the injury rate of all animals at its rodeos is extremely low (less than five-hundredths of one percent).⁸⁸ The PRCA established humane rules and regulations that are enforced by professional rodeo judges at all PRCA rodeos, such as immediate disqualification and fining of contestants for unnecessary roughness. Other rules state that battery-powered prods may be used only on animals' hips or shoulders in order to move them, and only when animals have room to move forward; spurs must be dulled, and calves may not be intentionally flipped backward; ropes and reins must be managed to prevent horses from dragging calves.⁸⁹

In 2003, the American Association of Equine Practitioners (AAEP) presented the PRCA with the Lavin Cup, an equine-welfare award given to organizations or individuals who demonstrate exceptional compassion toward, or develop and enforce rules and guidelines for, the welfare of horses.⁹⁰ The AAEP recognized the PRCA's work to improve animal welfare in the rodeo industry as well as at its own sanctioned events, such as requiring veterinarians to be present, establishing animal-use guidelines, and creating humane advisory and veterinary oversight committees.⁹¹

The International Professional Rodeo Association (IPRA), founded in 1957, is the second-largest professional rodeo association, sanctioning nearly 300 rodeos in the U.S. and Canada.⁹² The IPRA is based in Oklahoma City and holds fifteen events in Oklahoma each year, including the International Finals Rodeo at the Oklahoma State Fairgrounds and the International Finals Youth Rodeo held annually in Shawnee.⁹³

The IPRA handbook includes a section on animal handling that requires the presence or availability of a veterinarian to attend to any injured animal and of judges to inspect animals for fitness. The handbook also outlines various disqualifications and fines for activities that could harm the animals, such as roping calves in ways that cause the animals to land on their backs or heads or allowing horses to drag a calf after roping. Battery-operated livestock prods are allowed in moderation, but no other electrical devices can be

used and excessive prodding and whipping of livestock with non-electrical prods is disallowed.⁹⁴

Rodeo associations such as PRCA argue that, well-trained horses are a big investment of time and money for riders, and are often viewed as partners in the events. As such the horses are often treated very well, unloaded every four to five hours when on the road, and kept well-fed and hydrated; they receive regular veterinary care and regular exercise.⁹⁵ The PRCA reports that it sanctions roughly 30 percent of U.S. rodeos, and another 50 percent are sanctioned by other rodeo organizations, leaving about 20 percent that are not sanctioned and so not subject to any rodeo-association rules.⁹⁶

However, other groups are involved in managing rodeo animals. Stock contractors provide the animals used in rodeo competitions including horses, bulls, and calves. Horses and bulls with exceptional bucking abilities are expensive and are often bred specifically for use in rodeos.⁹⁷ The United Professional Rodeo Association lists ten stock contractors in Oklahoma.⁹⁸ The PRCA lists five Oklahoma stock contractors, including Beutler & Son Rodeo Company in Elk City, Oklahoma, which was awarded PRCA Stock Contractor of the Year in 1997.⁹⁹

Ohio and Rhode Island have state laws restricting some rodeo practices, such as calf or steer roping and the use of flank straps and electric prods. Some cities also restrict rodeo practices or ban the events entirely. Rodeo animals are explicitly exempt from anti-cruelty laws in some states, but this is not the case in Oklahoma.¹⁰⁰

Roping

Calf roping is a recognized event by both the PRCA and the IPRA. In this timed competition, a mounted rider lassos a calf's neck, flips the calf onto its side, and ties three of its legs together. The horse is trained to keep steady tension on the rope around the calf's neck.¹⁰¹ PRCA rules state that calves must weigh between 220 and 280 pounds and be strong and healthy.

There are multiple risks—both psychological and physical. Young calves are terrified as they are chased into the arena and brought to a jerking halt before being flipped to the ground.¹⁰² Calves are goaded and prodded and have their tails twisted to prompt them to dramatically burst out of the chute, and the time pressure and

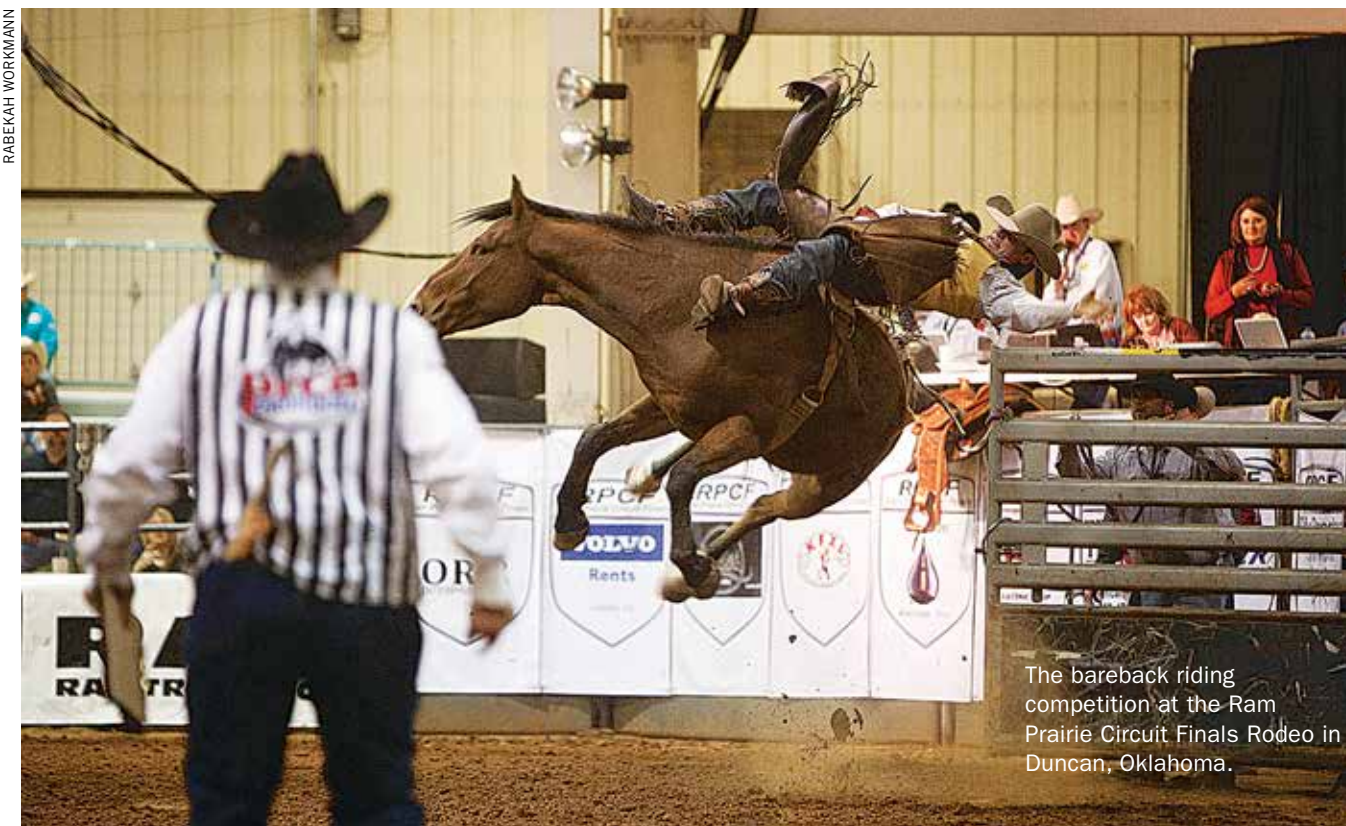
prize money can lead to poor roping, harsh handling, and potential injury.

In a calf-roping event at the PRCA-sanctioned Cheyenne Frontier Days in Wyoming in 2013, a roped calf was injured when a rope knot landed at the back of its neck and the calf was flipped directly onto its spine when the horse stopped. Video shot by a SHARK (Showing Animals Respect & Kindness) investigator documented the incident and showed the calf lying immobile after the flip; officials say the calf was examined and sedated by veterinary personnel and was alive when released to its owner. Referred to as a "jerk down," the move is banned by the PRCA.¹⁰³ The *Wyoming Tribune Eagle* reported that at least six animals died or were euthanized at the 2013 Cheyenne

Frontier Days: five steers and calves plus a horse that died of a preexisting heart condition.¹⁰⁴ Rhode Island banned tie-down calf roping in 1989.¹⁰⁵

Team roping involves a pair of mounted riders: one (the roper) lassos the steer's horns or neck, and then the other rider (the heeler) lassos its feet, immobilizing the animal between them.¹⁰⁶ PRCA rules state that steers used in team roping must have their horns protected during performances.¹⁰⁷

In this timed event, a running steer is dropped to the ground by tripping.¹⁰⁸ A rider lassos a steer's horns and then throws the slack of the rope over the steer's hip, turning his horse so that when the rope goes tight it pulls the steer and turns its head, unbalancing the steer so that it falls. The rider dismounts, but the horse continues to move, keeping the rope



The bareback riding competition at the Ram Prairie Circuit Finals Rodeo in Duncan, Oklahoma.



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“HORSE SENSE IS *the thing a horse has which keeps it from betting on people.*”—W. C. FIELDS

taut and sometimes pulling the steer along the ground to prevent it from getting up. The rider then ties three of the steer's legs together.¹⁰⁹

Broken horns and bones and dislocation are not uncommon in steer-tripping events due to the steer's weight and higher center of gravity.¹¹⁰ PRCA rules state that the horns of steers must be protected in steer-roping performances, and the steers must be inspected for fitness two weeks before an event.¹¹¹

In February 2014, Bob Thain, former PRCA board member and ProRodeo Hall of Famer, spoke out against steer roping or tripping at the National Rodeo Finals in December 2014 in Las Vegas. In a letter to the Boyd Gaming Corporation in February 2014, Thain wrote, “The PRCA has never been able to find a permanent home for the Steer Roping National Finals because it definitely does not attract spectators, only problems. There is a reason it has never been held in conjunction with the NFR—the humane issue.”¹¹²

Cotton Rosser, a veteran rodeo organizer from California, says steer tripping is accepted in only 10 percent of PRCA-sanctioned rodeos and is limited to states such as Oklahoma, Texas, and New Mexico. He says, “The rodeo committees don't want the event. They feel sorry for the animal.”¹¹³

Pawhuska, Oklahoma, is referred to as the Steer Roping Capital of the World and home to the Osage Steer Roping Club.¹¹⁴ The Ben Johnson Memorial Steer Roping event is held each Father's Day weekend in Pawhuska and brings in the world's top steer ropers.¹¹⁵

In steer roping, another timed event, a mounted rider (a bulldogger) chases a steer, slides off a galloping horse, grasps the steer's horns, and uses strength and leverage to slow the animal and wrestle it to the ground. Another mounted rider (a hazer) gallops alongside the steer to keep it from veering away from the bulldogger.¹¹⁶

Steers can suffer ripped tendons, sprains, bruising, and broken necks. In 2013, at the Calgary Stampede, a steer had to be euthanized after suffering a severe neck injury that caused complete paralysis and some systemic failure. Officials stated that the death of a steer in the event is rare, and occurred only one other time in the last decade.¹¹⁷

Bull, Bareback, and Saddle Riding

Bull riding is one of rodeo's most popular events. A flat rope is wrapped around the bull's chest, and the

rider grasps the rope with one hand. Riders climb onto the back of 2,000-pound bulls, using one hand in an attempt to stay mounted for eight seconds as the bull bucks, rears, spins, and twists. Spurring the bull can add to the rider's score, but riders are more commonly judged on their ability to stay on the bull.¹¹⁸

The Professional Bull Riders (PBR) has implemented several safety and welfare measures, stating, “To mistreat a bull would be a detriment to the sport upon which a bull rider's own livelihood depends. Therefore, the care and treatment of PBR bulls is a top priority to those who govern and/or participate in PBR events.” Measures include redesigning the lead-up alleys, holding areas, and bucking chutes to improve rider and bull safety, thus eliminating leg injuries in the chute (the most common form of injury), as well as requiring bulls to receive high-protein grains and high-quality hays, and allowing a maximum of ten hours travel time per day before bulls are rested for the recommended twelve to fourteen hours.¹¹⁹

Flank or bucking straps are tied around the bull's flank and are designed to encourage the bull to use its hind legs in bucking. A rider's score is affected by how well the bull bucked during the ride.¹²⁰

The Animal Legal Defense Fund states that, in bull and saddle-bronc riding, bucking straps, electric prods, and spurs are used to make the animal react more roughly.¹²¹ Bareback and saddle-bronc riding competitions have riders climbing onto a horse while in a chute, grasping the rigging (bareback) or rein (saddle bronc) with one hand, and trying to stay on the horse for eight seconds after it is released from the chute and begins to buck. On the first jump out of the chute, the rider must mark out his horse which means the heels of his boots must be in contact with the horse above the point of the shoulders before the horse's front legs hit the ground. A rider is scored on the horse's bucking, his control of the horse, and his spurring technique.¹²²

A flank strap or bucking strap is wrapped behind the horse's rib cage and is used to encourage bucking. The PRCA requires that flank straps be sheepskin-lined or neoprene-lined and have quick-release buckles.¹²³ Spurs used in bull and bronc riding at PRCA-sanctioned competitions must be dulled, and violators of the rule can be fined, suspended, and/or disqualified.¹²⁴

Horse Tripping

Horse tripping is a competitive event at some Mexican-style rodeos in which points are awarded for how quickly a contestant can lasso the front or hind legs of a horse, causing the animal to fall. The event can cause serious injuries to the roped horses, including broken legs, broken necks, and spinal damage. Horse tripping has been banned in several U.S. states, including Oklahoma, as well as by the PRCA but is still practiced in Wyoming, Utah, Colorado, and parts of Washington.¹²⁵

UNWANTED HORSES

Horses at risk of neglect, abandonment, or becoming “unwanted” come from all sectors of the horse industry, including racehorses, gaited horses, and even horses raised as pets. The Unwanted Horse Coalition, an alliance of equine organizations and part of the American Horse Council, defines unwanted horses as “horses which are no longer wanted by their current owners because they are old, injured, sick, unmanageable, fail to meet their owner's expectations (e.g., performance, color or breeding), or their owners can no longer afford them.”¹²⁶

The coalition reports that the inability of an owner to afford his or her horse is a primary contributor to the unwanted-horse population.¹²⁷ It is estimated that the cost of providing basic care for a horse ranges between \$1,800 and \$2,400 annually, while more than a third of the roughly two million horse owners in the U.S. have a household income of less than \$50,000.¹²⁸ The horse lifespan averages twenty-five to thirty years, making ownership of a horse a lengthy and expensive commitment. Moreover, the economic downturn in 2008 combined with the rising cost of feeding and housing a horse made it difficult for some owners to afford quality care for their horses. Drought conditions in Oklahoma from 2011 to 2015 forced horse owners to acquire hay from other states and, in turn, pay a much higher premium.¹²⁹ Other factors contributing to the number of unwanted horses include the cost of euthanasia for horses and indiscriminate breeding throughout the horse industry.¹³⁰

Horse rescues and sanctuaries play a role in re-homing some of the at-risk horses, but these groups have never been organized or publicly supported in their efforts to relieve horse owners of their responsibilities. Funding and infrastructure capacity are the main factors of that

diminish the ability of equine rescue organizations to care for more horses.¹³¹

The Homes for Horses Coalition is a nationwide organization that counts over 350 members from the horse-rescue and sanctuary communities. The coalition is committed to ending horse slaughter while promoting growth, collaboration, and professionalism in the equine-protection community. The organization provides resources, training, and support for its members to enable them to increase their capacities to re-home at-risk horses.¹³² While not endorsing the facilities, the Unwanted Horse Coalition and Homes for Horses Coalition collectively list twenty-two facilities in Oklahoma that accept horses for various purposes. The facilities have capacities that range from four to seventy-five horses, with staffs ranging from two to six.¹³³

Horse Euthanasia

As with the cost of euthanizing dogs, cats, and other farm animals, the cost of horse euthanasia varies by location and provider but is often comparable to euthanasia for other species. While there are options for low-cost euthanasia for dogs and cats at some local Oklahoma animal shelters, as of 2014 there are no similar low-cost programs for horses in the state.

The AVMA cites three approved methods for equine euthanasia: barbiturate overdose, gunshot, and penetrating captive bolt. Although overdose is the most expensive of the approved methods, most horse owners prefer to euthanize with an injection of barbiturates administered intravenously by a licensed veterinarian.¹³⁴

The AVMA recommends prompt disposal of equines killed by pentobarbital.¹³⁵ The AVMA suggests that horses be buried on the farm, incinerated or cremated, or disposed of in a solid-waste landfill in order to prevent exposure of wildlife and domestic animals to the toxic barbiturate residues. Some states do not allow horses treated with barbiturates to be buried, composted, rendered, or disposed of at landfills due to drug residues.¹³⁶ The HSUS provides a nationwide database of resources for humane euthanasia of horses and carcass disposal.

Oklahoma currently does not regulate the disposal of livestock carcasses that have been exposed to barbiturates. Dr. Rod Hall, veterinarian for the Oklahoma Department of Agriculture, Food, and Forestry, explains that research



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indicates barbiturates will not cause harm to the natural environment if the carcass is properly disposed of. In Oklahoma, accepted methods of carcass disposal include (1) rendering, (2) burial (requires specific measures to be taken to protect ground and surface waters), (3) composting, (4) incineration (no open-air incineration), and (5) landfills (certain landfills in Oklahoma accept dead livestock).¹³⁷

In June 2014, the Oklahoma Equine Hospital in Washington, Oklahoma, charged approximately \$382 for horse euthanasia which included the cost of a farm call (about \$57, depending on distance), euthanasia (\$100), and disposal (\$225).¹³⁸ Oklahoma State University (OSU) College of Veterinary Medicine charges \$150 for horse euthanasia, including carcass disposal. For horse owners unable to transport their horse, OSU charges an additional \$41 trip fee to euthanize on-farm within fifteen miles of Stillwater.¹³⁹ Precious Pets Cemetery in Spencer, Oklahoma, operates the only equine crematory in Oklahoma. Precious Pets offers removal, cremation, urns, and burial in the Last Corral burial garden. Precious Pets charges services based on the weight of the horse (\$1,000 for a 1,000-pound horse) plus costs associated with transport, urns, and burial.¹⁴⁰

U.S. Horse Slaughter

The U.S. was a major supplier of horses for meat consumption in other countries, including Japan, China, Mexico, France, Italy, and Belgium.¹⁴¹ During the early twentieth century, live horses were shipped to European slaughter facilities. However, high mortality rates and unhealthy conditions during overseas transport prompted passage of the federal Export Administration Act of 1979. This act prohibited any international transport by ship of live horses for slaughter or for human consumption. Soon after this ban, foreign companies began investing in American and Canadian horse-slaughter facilities so that only the meat would need to be exported.¹⁴²

The number of U.S. horses slaughtered domestically peaked in the late 1980s. During that time more than 320,000 horses were slaughtered annually at sixteen federally inspected horse-slaughter plants. Ninety percent of the exported meat went to European and Asian markets.¹⁴³ By 1994, the number of horse-slaughter facilities dropped to seven. By 1999, there were only three slaughter facilities in the U.S.: two in Texas and one in Illinois.¹⁴⁴ The number of horses slaughtered also declined from 243,000 in 1992 to 62,813 in 1999.¹⁴⁵ In 2007, the remaining horse-slaughter facilities in the U.S. were officially closed after the passage of the Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 2005-2006 and a series of state bans on the practice that were upheld by the U.S. Court of Appeals.¹⁴⁶ Since that closure, horses have often been transported to Canada or Mexico for slaughter.

The 2001 Commercial Transport of Equines to Slaughter Act requires transporters to verify the ability of horses to travel and provide animals with water, food, and rest for six hours prior to loading for transport. The act also states that horses shipped longer than twenty-eight hours must be off-loaded for six hours to rest, eat, and drink. During transport, horses must be checked every six hours to ensure no horse has fallen or is physically distressed. Additionally, stallions and aggressive horses are segregated from other horses. USDA regulations under the act prohibit the use of both double-deck trailers for commercial transport and electric prods in horse management, except in cases where human safety is threatened. In 2011, amendments to the regulations extended the proscriptions to also apply

to intermediate points en route, such as assembly points, feedlots, and stockyards.¹⁴⁷

The Slaughter Horse Transport Program (SHTP) also regulates the terms by which horses are transported within the U.S. and at the Canadian and Mexican borders. The SHTP states that each horse must be “older than six months at the time of loading, not blind in both eyes, and not likely to give birth during the trip.”¹⁴⁸ Certificates of compliance with the SHTP, signed by the owner or shipper of each load, are collected at Canadian slaughter facilities or at the Mexican border and then returned to the USDA for tracking.¹⁴⁹

Canada’s Meat Inspection Act and Regulations are similar to the U.S. Humane Slaughter Act and require that livestock be handled and slaughtered humanely. This process involves both rendering animals insensitive to pain before slaughter and following certain handling guidelines and welfare assessments.¹⁵⁰

There is conflicting information concerning the handling and stunning regulations used during horse slaughter in Mexico. In 2008, a group from the American Association of Equine Practitioners toured two Mexican horse-slaughter plants and found that both facilities humanely cared for the horses, including the use of captive-bolt stunners during slaughter.¹⁵¹ A contrasting report by HSUS in 2007 showed more gruesome treatment in horse slaughter in Juarez, Mexico. Horses were reportedly killed by using short knives and by slitting their throats while still alive.¹⁵²

In December 2014, the European Commission imposed a moratorium on the import of horse meat from Mexico following a series of audits by the European Union’s Food and Veterinary Office. The audits raised concerns about the traceability of U.S. and Mexican horses and questioned the reliability and truthfulness of vendor statements about horses’ medical-treatment records. The audit also outlined serious animal-welfare concerns throughout the slaughter pipeline, including injured animals, a lack of adequate care at the export facilities on U.S. soil, horses suffering during transport, and many American horses dying in slaughterhouse pens due to trauma and pneumonia.¹⁵³

A 2011 Government Accountability Office (GAO) report, *Horse Welfare: Action Needed to Address Unintended Consequences from Cessation of Domestic Slaughter*, maintained that the closure of U.S. slaughter plants resulted in longer transport to slaughter facilities in Mexico and Can-

ada, negatively impacting horse welfare. However, a 2013 report from Animals’ Angels, which investigated U.S. horse slaughter from 2007 to 2009, demonstrated that during long-distance transport to domestic plants, prior to their closure in 2007, horses suffered serious injuries and some were killed. The GAO report recommended that Congress either impose a permanent ban on domestic slaughter and transport abroad for that purpose, or remove the restrictions on funding for USDA inspection of domestic slaughter operations. Since 2013, Congress has annually reinstated and maintained the ban on domestic plants.¹⁵⁴

Oklahoma Horse Slaughter

A 2013 University of Oklahoma’s SoonerPoll telephone survey showed that 66 percent of Oklahoma respondents opposed repealing the horse-slaughter ban in 2013. Seventy-two percent of respondents were opposed to having a horse-slaughter facility in their communities, and of those opposed, 92 percent were in strong opposition. The majority of people, both urban and rural, and regardless of political affiliation, stated they did not want horse-slaughter facilities in their communities.¹⁵⁵

Another survey published by Protect the Harvest, an organization that advocates against animal protectionist groups, notes a change in views. The survey found that, while support for the horse-slaughter-ban repeal was originally at a fourteen-point disadvantage, 43 percent of voters were more likely to support the law after hearing from agricultural leaders on how the law would reduce horse neglect and benefit the environment. No information could be found that described how this survey was conducted.¹⁵⁶

In January 2014, Oklahoma state senator Randy Bass introduced Senate Joint Resolution 66, which would require a majority vote in any county before a horse-slaughter facility could be built or opened. Senator Bass stated, “When Governor [Mary] Fallin signed legislation into law last year legalizing horse slaughter, she issued a statement saying it was important for towns to be able to block horse slaughter plants if that was their will. This legislation would simply give counties the option to decide for themselves whether they want these facilities in their jurisdictions or not.”¹⁵⁷ The Oklahoma Senate Agriculture and Rural Development Committee refused to hear SJR 66, and it failed to meet the committee deadline in the Senate.¹⁵⁸



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Supporters of the 2013 repeal, including the Oklahoma Farm Bureau, Oklahoma Cattlemen's Association, and the Oklahoma Veterinary Medical Association (OVMA), have argued that horse-slaughter plants provide a humane alternative to the transport of aging, starving, and abandoned horses to Mexico or Canada.¹⁵⁹ As with other species (such as dogs and cats), these groups claim, large numbers of unwanted horses are "potential candidates for abuse, neglect, or abandonment."¹⁶⁰ The AVMA has also openly expressed disapproval for legislation that prohibits U.S. horse slaughter. The American Association of Equine Practitioners contends that "the slaughter of unwanted horses at processing facilities is currently a necessary aspect of the equine industry in order to provide a humane alternative to

allowing a horse to continue a life of discomfort or pain and possibly inadequate care or abandonment."¹⁶¹

Notwithstanding these views, animal-welfare groups insist that the horse-meat industry does not want aging or starving animals; the industry wants young, meaty animals.¹⁶² They further point out that starving or abandoning a horse is illegal under animal-cruelty statutes of all fifty states. Slaughtering horses can incentivize an illegal market for stolen young horses or even allow for continued over-breeding and poor breeding practices.

Laura Allen, executive director and founder of the Animal Law Coalition, states that because there is no market for horse meat in the U.S. the economics of slaughter actually benefit foreign owners. Horse slaughter produces low-wage jobs in the U.S. and an influx of workers and families that

"A MAN ON a horse is spiritually as well as physically bigger than a man on foot." —JOHN STEINBECK

RECOMMENDATIONS

Oklahoma's horses can be found living as pets, competing in events, and working on farms. The number of horses and their variety of uses greatly affects their care in the state.

Encourage responsible breeding and horse ownership throughout the equine industry to help find a long-term solution of unwanted animals and continue to research and mitigate the root causes of unwanted horses. Though horse rescues and adoptions are tools to end the suffering of unwanted horses, responsible breeding is essential to reducing the number of potential unwanted animals.

Reinstate the ban on horse slaughter for the state of Oklahoma. While horse slaughter does not exist in the U.S., if the practice were to return, this industry would not be beneficial to Oklahoma.

Educate the public on the costs of caring for a horse, including euthanasia. Horses can be euthanized and disposed of for as little as \$250, though this process and fee structure is widely misunderstood.

Promote the networking of horse rescues and accredited sanctuaries. Networking can help rescues better serve the horses of Oklahoma.

Support testing for soring at gaited competitions and require penalties for violators.

Regulate performance-enhancing drugs in race and show horses. Oklahoma has not adopted all RMTTC's regulations governing the use of medications.

Develop statewide resources for emergency relief for horses following droughts and other natural disasters.

Require city ordinances addressing the standards of care, including rest between working days.

may overrun local resources.¹⁶³ Finally, those opposed to horse slaughter argue that, because U.S. horses are often treated with medications not approved for use in animals intended for food, the selling of U.S. horse meat endangers those consuming the meat.¹⁶⁴

The Animals' Angels report investigating U.S. horse slaughter found that horses designated as bound for slaughter were exposed to aggressive and rough handling and overcrowded pens; they were also allowed to suffer from injuries without treatment.¹⁶⁵ Animals' Angels has also submitted Freedom of Information Act requests to the USDA, the responses to which revealed that horses frequently arrived at American plants lying dead or dying on the floors of overcrowded trailers.

The HSUS suggests expanding shelters and adoption opportunities for unwanted horses to help alleviate the need for horse slaughter.¹⁶⁶ HSUS also lists several humane, responsible re-homing options available to horse owners. In Oklahoma, in response to drought conditions and a shortage of hay, the OVMA partnered with other local organizations—the Oklahoma Department of Agriculture, Food, and Forestry, the Oklahoma Farm Bureau, the Oklahoma Humane Federation, the Oklahoma Pork Council, and the Oklahoma State Poultry Federation—to form the Oklahoma Livestock Relief Coalition. This group accepts public donations to feed and provide emergency care for abandoned horses.¹⁶⁷

The AVMA's Web site states that the long-term solution for unwanted horses is responsible breeding and ownership, not adjudicating whether a horse is slaughtered in the U.S. or Mexico. The Web site statement concludes: "Breeders, horse organizations, and horse owners should all be aware of the possible fates of unwanted horses, and should make a conscious effort to educate themselves and the public ... and (to) take proactive steps to ensure they aren't contributing to the problem."¹⁶⁸

It should be noted that beginning in fiscal year 2006 Congress prohibited the use of federal funds to pay the salaries and expenses of employees inspecting horse-slaughter facilities. Although an exception was made in 2011, which opened the door for an unsuccessful attempt by a New Mexico facility to open a plant, a 2013 budget measure again blocked federal funds from being used for horse slaughter. The USDA does not currently inspect horse-slaughter facilities anywhere in the U.S. and thus prohibits any horse-slaughter plants from operating.¹⁶⁹



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Natalee Cross is the co-founder of Blaze's Tribute Equine Rescue in Jones, Oklahoma. Her organization adopts and rehomes abandoned horses, including Rudy (left), whose life she saved.



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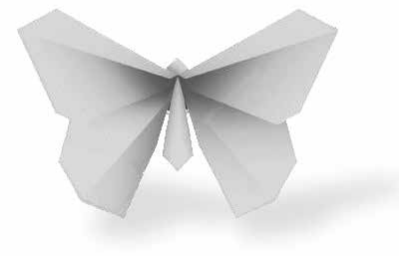
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WILDLIFE

Oklahoma Statute title 29 § 2-149.1 (1991) defines wildlife as “all wild birds, mammals, fish, reptiles, amphibians, and other wild aquatic forms, and all other animals which normally can be found in the wild state... includ[ing] any... species whether or not bred, hatched, or born in captivity.”¹ While these wildlife roam the “wild state” of Oklahoma prairies and forested areas, the biodiverse wild-animal population of the state can also be found in urban and rural communities. Wildlife in Oklahoma have always played a key cultural role in the traditions of hunting, fishing, and recreation, as well as in the basic pleasure of interacting with and viewing animals in nature. The inevitable interaction between such wild beings and the state’s human population must be uniquely balanced in ways different from the other animal groups in Oklahoma.



WILDLIFE

“NATURE PUTS NO question and answers none, which we mortals ask. She has long ago taken her resolution.” —HENRY DAVID THOREAU

BACKGROUND

From the forested mountains of the Ozark and Ouachita Mountain ranges in the east to the prairie grasslands of the west, with an intermingling of the two in the central Cross Timbers, Oklahoma’s terrain and wildlife are varied and unique. The Oklahoma Department of Wildlife Conservation (ODWC) lists some of the more recognizable animals in their habitats in the state (See **FIGURE WILDLIFE 1** for a map of the ecoregions listed):²

1. Short-grass Prairie: Black-tailed Prairie Dog, Burrowing Owl, Mule Deer, Pronghorn, Swift Fox, Texas Horned Lizard
2. Mixed-grass Prairie: Prairie Racerunner, Ord’s Kangaroo Rat, Eastern Collared Lizard, Lesser Prairie-Chicken
3. Tallgrass Prairie: Scissor-tailed Flycatcher, Henslow’s Sparrow, Greater Prairie-Chicken, Upland Sandpipers, American Golden Plover, Rough-legged Hawk, Great Plains Skink
4. Cross Timbers: Painted Bunting, Barred Owl, White-tailed Deer, Red Bat, Three-toed Box Turtle, Little Brown Skink, Timber Rattlesnake

5. Ozarks: Ozark Big-eared Bat, Oklahoma Salamander, Cave Crayfish, Louisiana Waterthrush, Red-eyed Vireo, Ozark Zigzag Salamander, Stippled Darter
6. Ouachita Mountains: Black Bear, Red-cockaded Woodpecker, Ouachita Dusky Salamander, Evening Bat, Leopard Darter, Pine Warbler, Green Anole

Oklahoma is part of the Central Flyway, a bird-migration route between Canada and Mexico which brings in a wide variety of birds with stopovers in the spring and fall.³ More than half of the 800 species of birds found in North America have been recorded in the state. The open space, diversity of habitat, access to water, and weather variations in the state account for the high number of birds found in Oklahoma.⁴

HUMAN IMPACT

Mid-nineteenth-century settlement brought with it unregulated hunting and persistent, unmitigated habitat appropriation and degradation, causing many wildlife populations to plummet throughout the Oklahoma and Indian Territories. The introduction of agricultural crops, livestock, and farming practices (e.g., fencing, large-scale cultivation, conversion

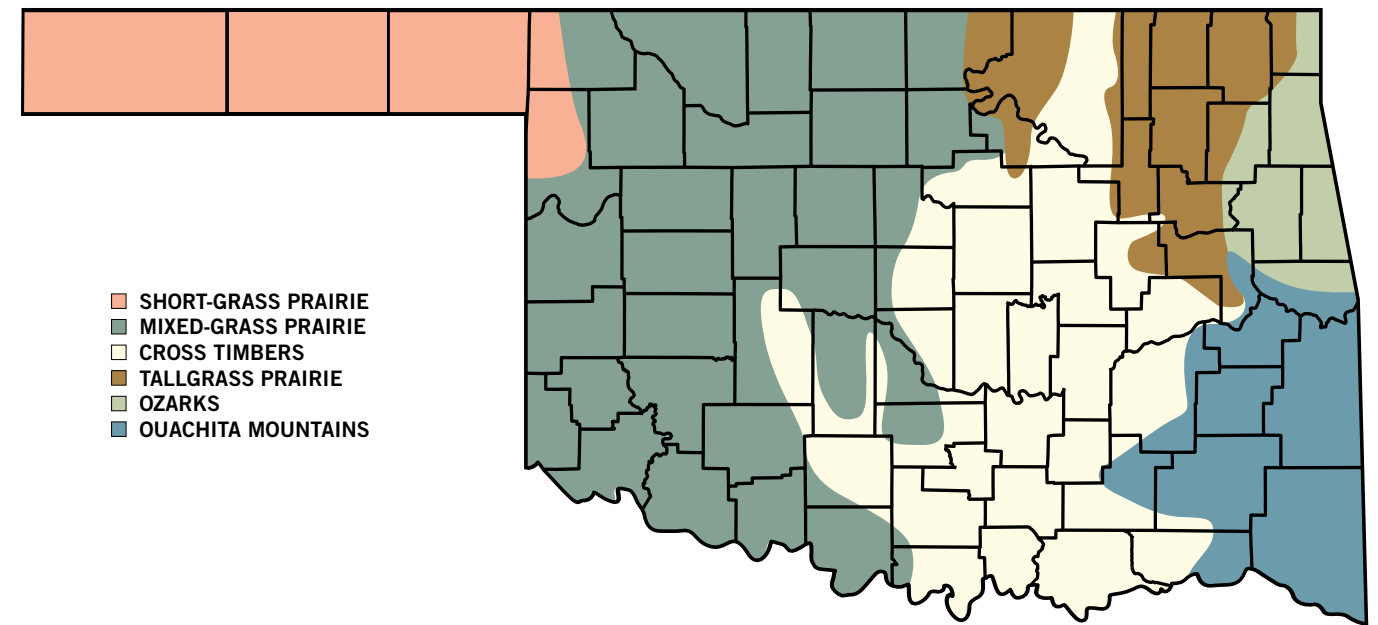


FIGURE WILDLIFE 1: Ecoregions of Oklahoma.

(Source: ODWC, December 2015, <http://www.wildlifedepartment.com/CWCS.htm>)

from native to introduced-plant communities) to the area out-competed native species for resources. Oklahoma grasslands and prairies that once provided a rich habitat for many species—including bison, elk, pronghorn, grouse, waterfowl, and shorebirds—became fragmented by towns, railways, roads, farms, and ranches in just a few decades.⁵

During this time of settlement, bison were killed for their furs, food, and simply the thrill of the hunt. As the bison population diminished, large predators such as bears, mountain lions, and wolves turned to livestock for food. In time, predators were systematically killed to prevent livestock attacks. Moreover, furbearing animals such as mink, otter, fox, beaver, and bobcat were also nearly extirpated for their pelts. It was not until 1895 that the Oklahoma Territorial Legislature enacted game and fishing laws to help preserve the natural animal population.⁶

The growing human population in the Oklahoma and Indian Territories also arrested and disrupted the natural processes of wildfire and free-flowing, flooding rivers and

streams to accommodate human convenience and demands for water for drinking, irrigation, and recreation.⁷ Although small natural oxbow and playa lakes still exist in Oklahoma, more than 200 lakes in the state today are man-made, created by the damming of rivers and streams.⁸

Currently, less than 10 percent of original native grasslands remain throughout the United States. The Nature Conservancy has asserted that “grasslands have become the world’s most threatened and least protected natural habitat type.”⁹ This loss of grasslands over the past 150 years has, in turn, resulted in the loss of native fauna dependent upon that environment.

Researchers have forecasted that, during the next fifty years, Oklahoma’s human population will top five million.¹⁰ Such significant growth will likely increase development and demands for energy production, housing, roads, agriculture, and water production. If not managed properly, this development could cause the destruction, fragmentation, and degradation of more habitats.¹¹



PHIL A DOTSON/GETTY IMAGES



WILDLIFE

CURRENT LAW AND REGULATION

“Wild beasts and birds are by right not the property merely of the people who are alive today, but the property of unknown generations whose belongings we have no right to squander.” —Theodore Roosevelt

Along with other natural resources such as water and air, wild animals and fish fall under the Public Trust Doctrine as “publicly owned” for the benefit and use of all U.S. citizens. This doctrine was used to make major changes in policy and wildlife conservation in the late nineteenth and early twentieth centuries, as hunters, conservationists, and citizens in the U.S. faced the near-extinction of bison and other dwindling, over-hunted wildlife populations. Since that time, the Public Trust Doctrine’s idea of conservancy has continued to influence laws, policies, and scientific investigations in the U.S.¹² By law, native wildlife may be kept only by individuals or institutions that have been granted special permits by the government.

Oklahoma wildlife is managed by both state and federal agencies. Migratory wildlife that naturally cross state borders, reside on federal lands, or are protected under the 1973 Endangered Species Act (ESA) are managed by the U.S. Fish and Wildlife Service and the U.S. Commerce Department’s National Marine Fisheries Service. The ESA protects all species of plants and animals that are listed as endangered, in danger of extinction throughout all or a significant portion of their range, in threat of extinction, or likely to become endangered in the foreseeable future.¹³ Other federal laws protecting wildlife include the Bald and Golden Eagle Protection Act, the Wild and Free-Roaming Horses and Burros Act, and

the Migratory Bird Treaty Act. Such laws as the Clean Water Act, Wilderness Protection Act, National Forest Management Act, and the National Environmental Policy Act that protect wildlife habitats or environments, in turn, indirectly protect wildlife as well.¹⁴

State governments are responsible for regulating the management, hunting, and transport of native wildlife within their borders. Oklahoma Statute Ann. tit. 29 § 2-109, 135; 5-402, 412, 412.1 gives state agencies the legal authority to list wildlife species as threatened or endangered within the borders of the state regardless of their classification at the federal level.

The ODWC is the Oklahoma agency responsible for managing and protecting wildlife populations and habitats in the state. ODWC departments include Fisheries, Wildlife, Law Enforcement, Information and Education, and Federal Aid.¹⁵ The ODWC does not receive general state tax revenues but, instead, is funded through the income generated by sales of hunting and fishing licenses.¹⁶ Oklahoma wildlife agencies are also supported by the Wildlife and Sport Fish Restoration Program, which levies special Oklahoma taxes on sporting equipment and boat fuels that are commonly purchased by anglers, boaters, hunters, and recreational shooters.

The ODWC is divided into eight wildlife jurisdictions, each with a chief, game-warden supervisors, and game wardens. The central office, in Oklahoma City, houses the chief and assistant chief of law enforcement. As of November 1, 2015, there were 112 Oklahoma game wardens, with at least one warden in each of state’s seventy-seven counties.¹⁷ Game wardens are responsible for enforcing state fish and wildlife laws, checking licenses and bag limits of hunters and anglers, and assisting public landowners and other citizens with wildlife incidents.

SPECIES LICENSING AND REGULATIONS	BAG LIMIT	2013 LICENSES ISSUED
White-tailed Deer (<i>Odocoileus virginiana</i>): Requires a hunting license, a deer archery license, deer primitive-firearms license, deer gun license, or a Holiday Antlerless Deer Gun license. Illegal devices include fully automatic firearms, laser sights, thermal tracking devices, and light-enhancement devices from sunset to sunrise.	Limit of 6 deer per individual for the season regardless of hunting method.	173,854 LICENSES OF VARIOUS TYPES
Elk: (<i>Cervus canadensis</i>) Requires a hunting and an elk license for each elk hunted.	Limit of 2 elk (not including those taken in controlled hunts) per individual for the season regardless of hunting method.	170
Turkey (<i>Meleagris</i>): Requires hunting license and turkey license. Roost shooting, baiting, and use of live decoys/recorded calls is prohibited.	Bag limits vary by county.	17,870
Quail (<i>Colinus virginianus</i> and <i>Callipepla squamata</i>): Requires hunting license. Shooting of quail or covey while it is resting on the ground (pot shooting) is prohibited.	Daily limit of 10; 20 in possession after first day.	NO ADDITIONAL SPECIE LICENSE
Black Bear (<i>Ursus americanus</i>): Requires hunting license and bear license. No baiting on wildlife-management areas, shooting of cubs or females with cubs is prohibited as is den shooting of bears and pursuing bears with dogs.	Limit of 1 bear per season regardless of hunting method.	465
Mountain Lion (<i>Felis concolor</i>): Can be hunted year-round when animal is committing or about to commit depredation on domesticated animal or an immediate safety hazard.	Game warden must be contacted when animal is killed, and the carcass is collected for biological data collection.	NO ADDITIONAL SPECIE LICENSE
Migratory Birds (including dove, duck, geese, and sandhill cranes): Requires an Oklahoma Migratory Bird Harvest Information Program (HIP) permit. Use of traps, snares, nets, rifles, live decoys, or recorded birdcalls is prohibited. Daily limits vary by species.	Daily limits vary by species.	43,426 HIP PERMITS AND 1,382 SAND HILL CRANE PERMITS
Squirrel (<i>Sciuridae</i>): Requires hunting license.	10 squirrels per day; 20 in possession after first day.	NO ADDITIONAL SPECIE LICENSE
Raccoon (<i>Procyon lotor</i>), Bobcat (<i>Lynx rufus</i>), Badger (<i>Taxidea taxus</i>), Gray Fox, Red Fox, Mink, Muskrat, Opossum (<i>Didelphis virginiana</i>), and Weasel (<i>Mustela nivalis</i>): Requires hunting license, fur license, or trapping license. Landowners or lessees are exempt from fur license when animal is committing or about to commit depredation; however, no part of the fur or carcass may be removed from the premises where taken.	No daily limit on bobcat; season limit is 20. Daily combined limit for gray/red fox is 2, with no more than 1 red; season combined limit is 6, with no more than 2 red. Daily limit for raccoon is 10 with a season limit of 40. No limits for other species.	1,718 FUR LICENSES
Coyote (<i>Canis latrans</i>): No hunting or taking from dark to daylight with the aid of artificial light or sight dog. The running or chasing of coyotes with dogs for sport only is allowed except where prohibited on public lands.	No daily or seasonal limit.	NO ADDITIONAL SPECIE LICENSE
Rattlesnake (<i>Crotalus cerastes</i>): Must have hunting license or rattlesnake permit (during an organized rattlesnake hunting event or festival).	No daily limit.	366

FIGURE WILDLIFE 2: ODWC hunting regulations and licenses issued in 2013.

(Source: ODWC Annual Report, 2013)

U.S. FISH & WILDLIFE SERVICE

FEDERAL

NATIONAL MARINE FISHERIES

ANIMALS MANAGED

- Migratory wildlife that naturally cross state borders
- Wildlife that reside on federal land
- Animals protected under ESA

LAWS PROTECTING WILDLIFE

DIRECT

- 1973 Endangered Species Act (ESA)
- Bald & Golden Eagle Protection Act
- Wild & Free-Roaming Horses & Burros Act
- Migratory Bird Treaty Act

INDIRECT

- Clean Water Act
- Wilderness Protection Act
- National Forest Management Act
- National Environmental Policy Act



WILDLIFE

Ninety-five percent of Oklahoma land is privately owned, and much of it is affected by wildlife and the regulations protecting animals and their habitats. The ODWC has a number of land-assistance programs to support landowners and their interactions with wildlife and help foster “successful habitat and wildlife management.”¹⁸ Nels Rodefeld, chief of the ODWC’s Information and Education Division, explains that although the “people of Oklahoma still have a strong, cultural connection to outdoors” the assistance programs help ensure the long-term protection of wildlife.¹⁹

Hunting and Fishing

State fish and wildlife laws are contained in Oklahoma Statute Ann. tit. 29 § 5-402, 412, 412.1, and 7-801.²⁰ Following statute regulations, the ODWC annually publishes *Oklahoma Hunting* and *Oklahoma Fishing*, which explain the current hunting and fishing seasons, licensing requirements, fees, and prohibited hunting and fishing methods. All native wildlife species have a designated hunting season, licensing requirements, and bag limits (the number of animals that can be caught by each hunter). **FIGURE WILDLIFE 2** outlines ODWC licensing requirements and the number of ODWC licenses issued in 2013.^{21, 22}

Popular wildlife species hunted in the state include deer, wild turkey, geese, ducks, foxes, raccoons, bobcats, and sandhill cranes. Deer hunting is the most popular hunting sport in Oklahoma, with approximately 250,000 registered deer hunters each year. According to the ODWC, deer-hunting revenues and other secondary economic benefits that service the hunting industry, such as sporting-goods stores and restaurants, total \$600 million in revenue per year for the state.²³

The ODWC offers in-person and online hunter education courses. Hunters younger than thirty must obtain a Hunter Education Certification or hunt with an apprentice-designated license.²⁴ Nels Rodefeld of the ODWC reports that approximately 20,000 individuals complete hunter education classes each year.²⁵

Operation Game Thief is an ODWC program designed to help stop poaching, the illegal killing of fish and wildlife in the state. The program encourages the public to anonymously report information concerning poaching and other wildlife crimes such as animal abuse. Tax-deductible dona-

tions are used to help finance rewards given to callers who report poaching.²⁶

The ODWC law enforcement also recognizes the Interstate Wildlife Violator Compact. This agreement between state wildlife department allows for member states to share information about hunting, fishing, and trapping license suspensions. As a member of the compact, Oklahoma agrees to enforce suspensions of individuals from other states within the borders of Oklahoma.²⁷

Trapping

In 2013, the ODWC sold 776 trapping licenses. Legal traps used in Oklahoma are box traps, smooth-jawed, single-spring leg-hold steel traps with a jaw spread no greater than eight inches, double-spring offset jawed leg-hold steel traps with a jaw spread of no greater than eight inches, and enclosed trigger traps. Box traps typically lure an animal into an enclosed cage or box and then trap the live animal until retrieved by the trap owner. Leg-hold traps are commonly used for coyotes, bobcats, foxes, raccoons, skunks, and other furbearing animals. This type of trap is triggered by the weight of an animal stepping on the trap, causing the jaws of the trap to snap shut around the animal’s leg.²⁸

In Oklahoma, it is illegal to set traps in areas commonly used by humans, dogs, or other domestic animals. Under ODWC regulations, all traps must have the owner’s name attached, except when they are placed on the trapper’s private property, and trappers are required to check their traps at least once every twenty-four hours.²⁹ In Oklahoma, landowners cannot set more than twenty traps on a single property; however, residents who hold lifetime hunting licenses have no limit on the number of traps they can set.

The Oklahoma Fur Bearers Alliance (OFBA) is a non-profit trapping organization with the mission to promote ethical and effective furbearer trapping in Oklahoma. The organization’s Web site states that trapping helps control high populations of certain species such as beavers, skunks, and muskrats that are not controlled through any other methods.³⁰ OFBA hosts two conventions each year and sponsors a trapper camp for Oklahoma youth.

The economic value of furs has gone down drastically since the 1980s and 1990s.³¹ In spring 2014, the KanOkla Fur Company reported the following fur prices:³²

- Bobcat: Market is very strong. Furs prices from Oklahoma are \$50 to \$250 depending on quality.
- Raccoon: Fur prices are \$7 to \$9 depending on quality.
- Coyote: Grade is very selective. Fur prices from Oklahoma are \$10 to \$25 depending on quality.
- Beaver: Carcass preferred. Fur prices are \$1 to \$12 depending on quality.
- Red fox: No damage to fur. Fur prices are \$10 to \$28 depending on quality.
- Gray fox: Fur price is \$16.
- Skunk: Fur price is \$0.
- Opossum: Fur price is \$0.

Nuisance Animals

The Nuisance Wildlife Control Operator (NWCO) program was developed to provide a record of the activities of nuisance wildlife in the state and of the private enterprises that respond to nuisance-wildlife complaints by the public. This program is managed by the ODWC and provides solutions for citizens who encounter problems with damage created by nuisance wildlife. Although the program is regulated by ODWC, certified NWCOs are not considered employees of the state. Permit holders must be at least eighteen, pass a NWCO certification exam, possess a valid professional trapping license, and have no fish- or wildlife-law convictions within the previous five years. NWCOs must submit annual reports to ODWC of their activities.³³

When NWCOs are contracted by a private citizen to remove a nuisance animal, the NWCOs must provide specific information concerning their services to their clients. Approved methods of animal control for the NWCO program include traps (same use restrictions as required for a state trapping license), snares, and shooting (only allowed when municipal ordinances do not prohibit the discharge of firearms). The ODWC prohibits the use of poison and exploding traps or devices in NWCO activities.³⁴

When NWCOs capture a sick or diseased wildlife species, they are required to euthanize the animal and incinerate or bury the carcass. Other trapped wildlife may be turned over to a licensed wildlife rehabilitator or relocated on private property if the NWCOs have the landowner’s permission and the property is at least five miles outside any city. Nuisance animals are not allowed to be sent to any captive facility, to be sold, or to be held for more than twenty-four hours before release.

The following wildlife species can be considered a nuisance animal in Oklahoma:³⁵

Armadillo	Mink
Badger	Mole
Bats (except endangered species)	Mice
Beaver	Muskrat
Bobcat	Nutria
Cottontail Rabbit	Opossum
Coyote	Gopher
Fox squirrel	Porcupine
Gray squirrel	Raccoon
Flying Squirrel	Rat
English (House) Sparrow	Striped Skunk
Feral Pigeon	Snake
Gray and Red Fox	European Starling
Ground Squirrel	Weasel
Jackrabbit	Woodchuck

Special permitting from the United States Department of Agriculture (USDA) Wildlife Service allows NWCOs to use control activities for resident Canadian geese. NWCOs may not handle complaints regarding any native wildlife species or endangered species unless authorized by ODWC.

POPULATION CONTROL

As of May 5, 2014, the ODWC listed 259 licensed NWCOs, notably including a few staff members of various municipal animal shelters. Armadillos, raccoons, skunks, and squirrels were the most commonly reported nuisance animals in urban and suburban areas; NWCOs receive the most rural complaints about beavers, coyotes, opossums, and raccoons. NWCO 2012 reports indicated that more than 6,300 wild animals were captured by NWCO permit holders. Of those animals, skunks (1,548), raccoons (1,234), and opossums (1,057) were most common to be captured.³⁶

The ODWC Web site notes that the NWCO program was not created to “address complex damage situations or problems with any and all forms of domestic or imported non-native wildlife, migratory birds, or any federally protected species.” In Oklahoma, the USDA Wildlife Services assists local, state, federal, and private organizations with preventing conflict between humans and wildlife in



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NATURE CONSERVANCY

COMMERCIAL AND NON-COMMERCIAL BREEDERS

Wildlife may be bred for both commercial and non-commercial purposes with proper licenses from the ODWC. A commercial breeder's license allows breeders of birds and other animals to sell animals for food or for breeding stock. A non-commercial breeder's license is required when a breeder plans to raise animals for his or her own consumption, to keep as a pet, or to release onto private land. Wildlife animals used for breeding cannot be directly taken from the wild and must be kept on lands and/or waters approved in the breeder license application.⁴¹

Animals bred and raised for hunting are subject to the same hunting seasons as those found living in the wild (discussed earlier in this section). From 2011 to 2013, ODWC-issued commercial licenses decreased from ninety-three to eighty-seven and non-commercial breeder licenses decreased from 130 to 100 (FIGURE WILDLIFE 3 AND 4). Russ Horton, ODWC wildlife research supervisor, noted that the agency currently does not have an explanation for the decrease in the number of licenses issued.⁴²

In order to qualify for a license, breeders must first have their property inspected by the ODWC county game warden. The warden determines breeder compliance with current care and safety standards for the species that will be bred and kept on the property. All licensed breeders are subject to the minimum standards described in the federal Animal Welfare Act. The game warden also inspects the sizes of the cages, reviews the breeder's record-keeping, and ensures other factors that affect the general health of the breeding animals. If an individual does not comply with any regulation in the license application, his or her license may be revoked by the game warden.⁴³

The ODWC requires import and export permits for anyone bringing specific species of wildlife into Oklahoma or selling wildlife in other states that were first raised or bred in Oklahoma. Import paperwork must then be sent to the Oklahoma Department of Agriculture, Food, and Forestry, including the import permit number issued by ODWC, prior to shipment.⁴⁴ The number of import and export permits issued by the ODWC has decreased during the last several years (FIGURE WILDLIFE 5). The ODWC did not identify why the permits decreased.

Wildlife species exempt from import/export permits, commercial and non-commercial breeder's licenses, and commercial hunting area licensing include:⁴⁵

“IT IS THAT range of biodiversity that we must care for—the whole thing—rather than just one or two stars.” —DAVID ATTENBOROUGH

- Alpacas, guanacos, vicuñas
- Bison
- Camels
- Cats (except native cats and bears)
- Cattle
- Chickens (domestic fowl, including guineas)
- Chinchillas
- Dogs (except coyotes and native foxes)
- Exotic tropical fish (except those prohibited from import or possession by commission regulation or statute)
- Ferrets (except black-footed, *Mustela nigripes*)
- Gerbils
- Goats
- Guinea pigs
- Hamsters
- Hedgehogs
- Horses, donkeys, and mules
- Llamas
- Mice (except those species normally found in the wild)
- Native invertebrates (except crayfish and all freshwater mussels)
- Peafowl
- Pigeons
- Migratory waterfowl not listed as protected by Federal Regulation 50 CFR
- Pigs (except javelinas)
- Rabbits (except cottontails, jackrabbits, swamp rabbits, and other such species normally found in the wild)
- Rats (except those species normally found in the wild)
- Salt-water crustaceans and mollusks (imported for human consumption)
- Sheep (except Dall and bighorn sheep)
- Turkeys (except Rio Grande, Eastern, Merriam, Osceola, or any subspecies)
- Zebras
- Sugar gliders
- Civets
- Wallaby
- Kangaroo
- Fennec Fox
- Coati mundi
- Primate

situations such as bird strikes at airports, large bird populations in public areas, livestock depredation caused by furbearers, and wildlife-borne diseases that may pose risks to people, pets, and livestock.³⁷

In the 2010 USDA Wildlife Services report, Oklahoma farmers and ranchers lost nearly 13,900 head of cattle and more than 3,700 lambs to predators, with total losses valued at more than \$6.9 million.³⁸ Kevin Grant, director of the Oklahoma Wildlife Services Animal and Plant Health Inspection Service program, stated that his agency provides advice and technical assistance to handle feral hogs, birds, beavers, and other wildlife for individuals, companies, and municipalities.³⁹

Oklahoma Wildlife Services assists landowners to control wildlife on their properties using non-lethal methods, including lasers, pyrotechnics, traps, and vehicles, and lethal control methods that include firearms, aerial gunning, M-44 cyanide capsules, pneumatics, snares, and trapping. In 2013 the Oklahoma Wildlife Services dispersed 152,848 animals (mainly bird species), killed or euthanized 69,779 animals, and freed, released, or relocated seventy-five animals. The traps and snares used in the program also resulted in the unintentional capture of eighty-one animals. Of those, thirty-eight were freed or released, and forty-three died during capture.⁴⁰

Although it is illegal in most states to take an animal from the wild and keep it as a “pet,” laws in other states vary as to which wildlife species can be kept legally. For example, captive-bred raccoons can be legally owned in Oklahoma, but the ODWC requires proof that the animal came from a breeder and that the owners obtained a non-commercial breeder license.⁴⁶ Other animals legally bred by Oklahoma commercial breeders include bobcat, skunk, fox, prairie dog, quail, pheasant, turkey, chukar, and duck, as well as snakes and other reptiles. Bear and mountain-lion owners must possess a commercial license regardless of whether they are operating a commercial enterprise.⁴⁷

Captive Deer Breeding

In recent years, breeding captive deer (also known as deer farming) has become increasingly common in several states, including Oklahoma. Captive breeds are all members of the *Cervidae* family, which includes white-tailed, black-tailed, mule, red deer, and elk. Breeders typically raise the *Cervidae* with the purpose of gaining more desirable hunt-

ing characteristics, such as high antler mass and spread, and then sell the animals to hunting ranches and preserves.⁴⁸ A hunting ranch may pay as much as \$6,000 for a high-quality male deer, and hunters may pay as much as \$10,000 to \$12,000 for a hunting experience. Farmed *Cervidae* can also be raised for venison or kept for recreational reasons by the breeders.⁴⁹

In Oklahoma, captive-bred *Cervidae* are licensed by the Oklahoma Department of Agriculture, Food, and Forestry. Farmed *Cervidae* tend to be hunted or harvested on ODWC-licensed commercial hunting areas.⁵⁰ Licensing requirements for deer farming include creating appropriate fencing to prevent co-mingling of farmed and wild *Cervidae*, protecting animals from the weather, and providing for basic needs such as water and feed.⁵¹

There are approximately 220 licensed breeders of *Cervidae* in Oklahoma, two-thirds of whom breed and sell white-tailed deer.⁵² Oklahoma has two captive-deer breeding member organizations: Whitetails of Oklahoma and Whitetail Deer Farmers Association.⁵³



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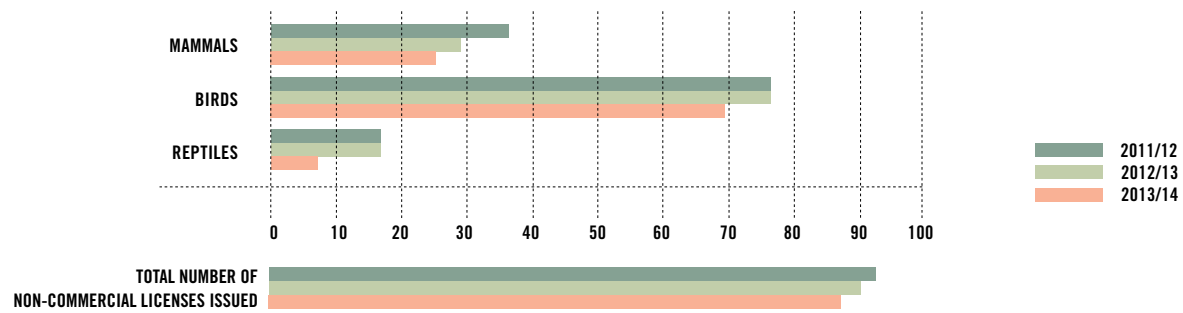


FIGURE WILDLIFE 3: Commercial breeder's licenses issued by ODWC (2011-2014).

(Source: ODWC, January 2014)

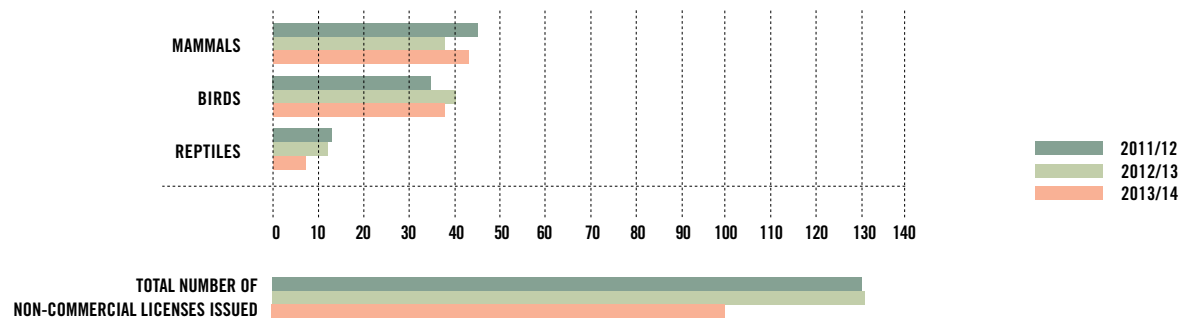


FIGURE WILDLIFE 4: Non-commercial breeder's licenses issued by ODWC (2011-2014).

(Source: ODWC, January 2014)

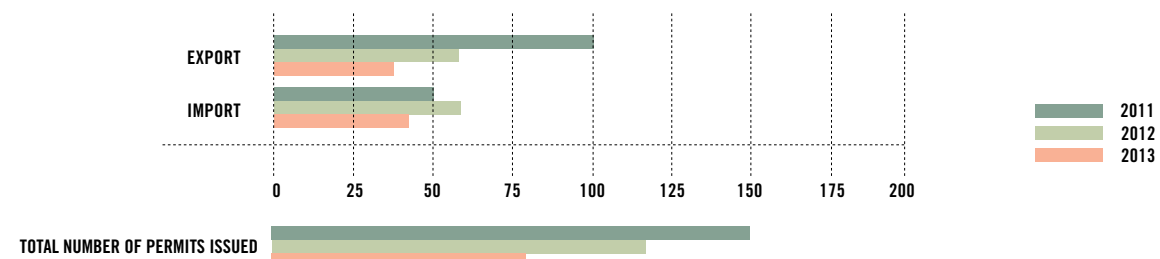


FIGURE WILDLIFE 5: Import and export permits issued by ODWC (2011-2013).

(Source: ODWC, January 2014)

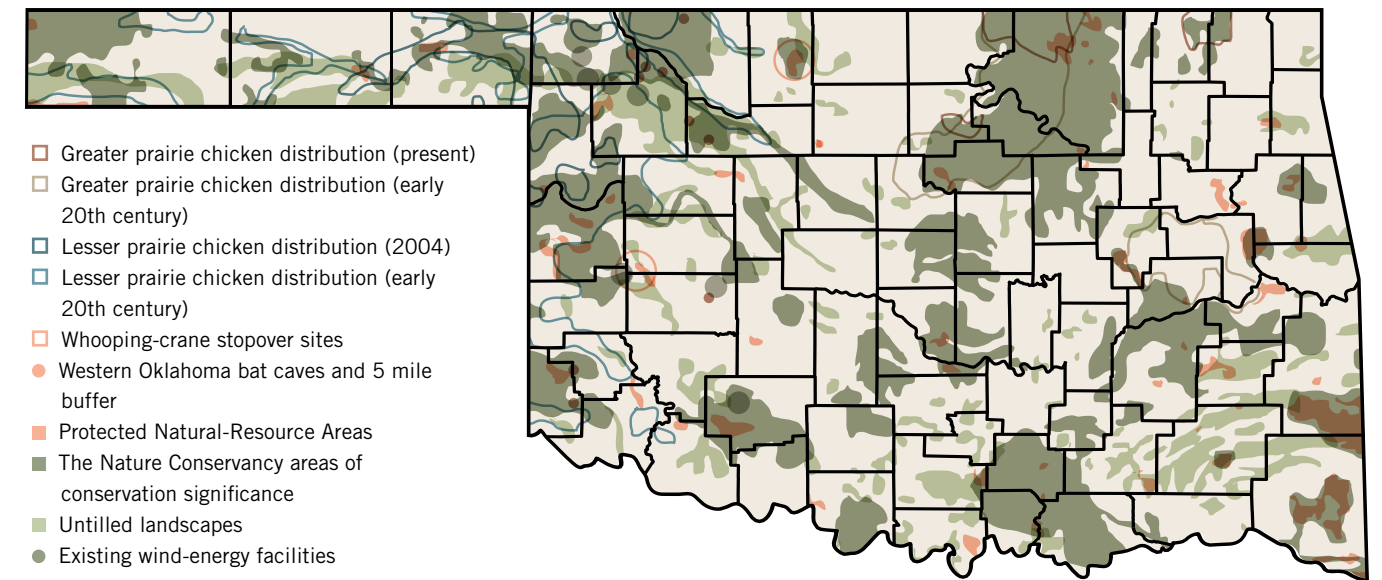


FIGURE WILDLIFE 6: Areas of conservation sensitivity in Oklahoma.

(Source: The Nature Conservancy, 2004)

Tribal Agreements

Native Americans enjoy hunting and fishing rights as a result of the treaties signed between their tribes and the federal government during the nineteenth and early twentieth centuries. The Supreme Court created the doctrine of reserved hunting and fishing rights in the 1968 case of *Menominee Tribe of Indians v. United States*, which stated that the establishment of a reservation by treaty, statute, or agreement includes an implied right of tribal members to hunt and fish on that reservation, without interference by state regulation.⁵⁴ In many cases, treaties guaranteed that tribal members could continue to hunt and fish in their traditional hunting and fishing locations, even if those locations were outside the reservations.⁵⁵ The scope of hunting

and fishing rights can differ with each federally recognized tribe.⁵⁶ In Oklahoma, there are thirty-nine federally recognized tribes. With the exception of the Osage Nation, all tribal lands are not "reservations." The complex intersection of state, federal, and tribal jurisdictions and state, federal, and tribal land boundaries in regards to tribal members rights to hunt and fish has led to legal questions and court cases over the past hundred years. In May 2015, the Cherokee Nation signed a compact with the state of Oklahoma that established dual licenses for Cherokee citizens, recognized by both sovereigns in their jurisdictions. The ODWC will begin issuing the licenses on January 1, 2016. The Cherokee Nation will pay a small amount to the state for each license. The state will then qualify for federal grant dollars



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that can be used only for wildlife management and conservation. All Cherokee citizens sixteen and older will be eligible to receive the new license as well as one deer tag and one turkey tag annually. The citizens will not pay for any of the tags or licenses. Hunting seasons and bag limits will continue to be enforced by both governments.⁵⁷

OKLAHOMA ENDANGERED SPECIES

As mentioned above, wildlife may be classified as endangered or threatened at the state or national level. The Oklahoma Natural Resources map (FIGURE WILDLIFE 6), produced by the Nature Conservancy, identifies areas of conservation for endangered or threatened species in Oklahoma, including bat caves, whooping-crane stop-over sites, protected animal-habitat areas, and existing wind-energy facilities.⁵⁸ In January 2013, the Fish and Wildlife Service listed 2,054 species worldwide and 1,436 in the U.S. as endangered or threatened.⁵⁹ See FIGURE WILDLIFE 7 for federally and Oklahoma listed endangered and threatened species.^{60, 61}

Lesser Prairie Chicken

In March 2014, the lesser prairie chicken was listed as a threatened species under the Endangered Species Act. The Nature Conservancy has identified this bird as a species of greatest conservation need in Oklahoma.⁶² Lesser prairie chickens are ground-nesting birds that require large areas of native prairie, including mixed-grass, sand-sage, and shinnery-oak prairies.⁶³ The loss, fragmentation and conversion of grasslands to cropland and pastures and other human developments since the nineteenth century, as mentioned earlier, has been a leading cause in the threatened nature of this bird and its habitat.⁶⁴

In 2011, the Oklahoma legislature approved the development of the Oklahoma Lesser Prairie Chicken Conservation Plan by the ODWC to protect and restore the lesser-prairie-chicken habitat in the state.⁶⁵ In 2013, the Oklahoma Wildlife Conservation Commission approved the conservation plan to research fifteen lesser-prairie-chicken habitat areas in western and northwestern Oklahoma and create incentives for landowners to restore the habitat.⁶⁶

As of summer 2015, the ODWC and other state and federal agencies were working on the following projects

Federally Listed Threatened & Endangered Wildlife in Oklahoma	STATUS
GRAY BAT (<i>MYOTIS GRISESCENS</i>)	ENDANGERED
INDIANA BAT (<i>MYOTIS SODALIS</i>)	ENDANGERED
OZARK BIG-EARED BAT (<i>CORYNORHINUS (= PLECOTUS) TOWNSENDII INGENS</i>)	ENDANGERED
WHOOPING-CRANE (<i>GRUS AMERICANA</i>)	ENDANGERED
PIPING PLOVER (<i>CHARADRIUS MELODUS</i>)	THREATENED
INTERIOR LEAST TERN (<i>STERNA ANTILLARUM</i>)	ENDANGERED
RED-COCKADED WOODPECKER (<i>PICOIDES BOREALIS</i>)	ENDANGERED
BLACK-CAPPED VIREO (<i>VIREO ATRICAPILLUS</i>)	ENDANGERED
RUFUS RED KNOT (<i>CALIDRIS CANUTUS RUFUS</i>)	THREATENED
AMERICAN BURYING BEETLE (<i>MICROPHORUS AMERICANUS</i>)	ENDANGERED
NEOSHO MUCKET (<i>LAMPSILIS RAFINESQUEANA</i>)	ENDANGERED
RABBITSFOOT MUSSEL (<i>QUADRULA CYLINDRICA CYLINDRICA</i>)	THREATENED
SCALESHELL MUSSEL (<i>LEPTODEA LEPTODON</i>)	ENDANGERED
WINGED MAPLELEAF MUSSEL (<i>QUADRULA FRAGOSA</i>)	ENDANGERED
OUACHITA ROCK POCKETBOOK (<i>ARKANSIA WHEELERI</i>)	ENDANGERED
ARKANSAS RIVER SHINER (<i>NOTROPIS GIRARDI</i>)	THREATENED
NEOSHO MADTOM (<i>NOTURUS PLACIDUS</i>)	THREATENED
OZARK CAVEFISH (<i>AMBYLOPSIS ROSAE</i>)	THREATENED
LEOPARD DARTER (<i>PERCINA PANTHERINA</i>)	THREATENED
NORTHERN LONG-EARED BAT (<i>MYOTIS SEPTENTRIONALIS</i>)	THREATENED

Oklahoma Department of Wildlife Threatened and Endangered	STATUS
LONG-NOSED DARTER (<i>PERCINA NASUTA</i>)	ENDANGERED
OKLAHOMA CAVE CRAYFISH (<i>CAMBARUS TARTARUS</i>)	ENDANGERED
BLACK-SIDED DARTER (<i>PERCINA MACULATE</i>)	THREATENED

FIGURE WILDLIFE 7: Federally listed and Oklahoma-listed threatened and endangered wildlife in Oklahoma (2015)

(Source: ODWC, December 2015, <http://www.wildlifedepartment.com>)

“PLANS TO PROTECT air and water, wilderness and wildlife are in fact plans to protect man.” —STEWART UDALL

and initiatives designed to restore and increase habitat for lesser prairie chickens in the state.⁶⁷

- Natural Resource Conservation Service Lesser Prairie Chicken Initiative
- ODWC Lesser Prairie Chicken Habitat Conservation Program
- U.S. Fish and Wildlife Service Partners for Fish and Wildlife Program
- Oklahoma Association of Conservation Districts Wildlife Credit Program
- Southern Great Plains Crucial Habitat Assessment Tool

Native Bats

As of 2015, there are twenty-three native bat species in Oklahoma, many of which are migratory and spend the winter in other parts of the world. Three species of bats found in Oklahoma are on the federal endangered species list (the Indiana bat, Gray bat, and Ozark Big-eared bat) and three are candidate species for being added to the list (the Southeastern bat, Small-footed bat, Rafinesque’s big-eared bat).

Since the 2007-08 winter, White-nose Syndrome (WNS), named for a fungus that appears on the muzzles and bodies of affected bats, has spread among hibernating bats from the northeast into the central U.S., killing more than 5.7 million bats. As of spring 2015, there were no confirmed cases of WNS in Oklahoma bat populations, though suspected cases were found in Arkansas along the Oklahoma border in the winter of 2012-13.⁶⁸

Recognizing the potential threat that WNS poses to Oklahoma bat populations, the ODWC established the Oklahoma Bat Coordinating Team to facilitate communication among stakeholders, scientists, and management groups, including the ODWC, the Oklahoma Tourism and Recreation Department, the Nature Conservancy, the University of Central Oklahoma, and the U.S. Fish and Wildlife Service. In Oklahoma, most bat caves are located on private land, though twenty-four caves are under state, federal, or tribal authority. Public access to the caves and their management methods vary by jurisdiction.⁶⁹

Other causes for the loss of bat populations in the state include habitat loss from mining operations, urban devel-

opment, lake/reservoir construction, public disturbance of bats in maternity caves or during hibernation, and the use of agricultural pesticides on insects that bats eat.⁷⁰

WILDLIFE REHABILITATION

According to Oklahoma Administrative Code 800:25-38-2, an individual may not possess any injured, sick, young, or other wildlife for the purpose of rehabilitation without a Wildlife Rehabilitation License issued by the ODWC. Rehabilitation of migratory birds and threatened or endangered species requires a federal license or special-purpose rehabilitation license. The National Wildlife Rehabilitators Association (NWRA), an organization of paid members that support wildlife rehabilitation, states that the goal of wildlife rehabilitation is to provide care for the animals brought in, with the ultimate goal of returning them to the wild.⁷¹ In contrast to wildlife-agency personnel who are charged with wildlife protection and upholding conservation laws, wildlife rehabilitators are not state employees but volunteers who provide care for animals at their own expense.

The International Wildlife Rehabilitation Council (IWRC) and the NWRA are the two primary U.S. wildlife rehabilitation organizations that offer education, training, and minimum care standards for facility staff.⁷² The IWRC was founded in 1972 in response to the increasing number of rehabilitation facilities without professional standards or support networks. A goal of the IWRC is to provide wildlife rehabilitators and the public with reliable, scientific education and resources to promote wildlife conservation and welfare.⁷³ IWRC has developed a professional certification program, Certified Wildlife Rehabilitator, that requires a member facility to hold a minimum standard of animal care. The mission of the NWRA, founded in 1982, is to improve and promote the profession of wildlife rehabilitation and preserve natural ecosystems. The NWRA and IWRC provide educational material and programs to its members and produces a journal.⁷⁴

ODWC wildlife-rehabilitation licenses require an inspection of caging, fencing, and record-keeping of the rehabilitation organization by an ODWC game warden.⁷⁵ Individuals with an ODWC rehabilitator license may not possess a commercial breeder license, but under certain circumstances may be licensed as a non-commercial breeder.

Oklahoma regulations require that wild animals taken in by a rehabilitator must be immediately released



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back into the wild upon recovery from injury or at the appropriate age for release. Animals that cannot be rehabilitated are to be euthanized according to American Veterinary Medical Association guidelines within ten days of determining an animal is unsuitable for release. No animal accepted for rehabilitation may be kept as a pet (OAC 800:25-38-9).

As of July 2014, the ODWC reported 109 state-licensed wildlife rehabilitators in forty counties. Nineteen of those licensed also possessed a federal wildlife-rehabilitation permit; seven were IWRC members, and eleven were NWRA members. Four rehabilitators were members of both IWRC and NWRA (IWRC and NWRA membership lists).⁷⁶ One person in Oklahoma was listed on the IWRC Web site as a certified wildlife rehabilitator; however, this person was not listed as having an active ODWC wildlife-rehabilitation license at the time. See **FIGURE WILDLIFE 8** for a comparison of state rehabilitators.

Most other states regulate the rehabilitation of wildlife, though licensing requirements vary. Most states require

license applicants to demonstrate a level of competency and preparedness to care for wild animals. Some states issue different levels of care permits that correlate with levels of experience or performed activities, such as working with specific species.⁷⁷ Oklahoma does not issue different levels of rehabilitator permits.

Today, a problem facing all U.S. wildlife-rehabilitation centers is a lack of standardization in recording and reporting. Currently, there is not a national standard for terminology or a database system for monitoring and recording wildlife health data at rehabilitation centers. In Oklahoma, the WildCare Foundation is the state's largest wildlife rehabilitation center. WildCare reported 5,280 wild animals treated in 2013, but the total number of wild animals that receive care from all other wildlife rehabilitators in the state each year is unknown.⁷⁸ Although the ODWC requires rehabilitators to keep records of the wildlife they treat, the data collected by each rehabilitator is not sent back to the ODWC. As Dr. Dave McRuer, DVM, director of veterinary services at the Wildlife Center of Virginia, has stated, without a standardized system wildlife-rehabilitation centers represent "an untapped source of health data on a diverse array of wild animals, providing a unique window into wildlife health."⁷⁹

WILDLIFE WELFARE ISSUES

Urban Expansion

As human development expands and claims more wildlife habitat, the number of animal and human interactions will increase. Although many animals can adapt fairly well to humanized landscapes, which can provide abundant food, water, and shelter, human and wildlife interactions can also be a negative experience for both parties involved.⁸⁰ Humans feel the negative effects when armadillos root up lawns in search of grubs, when raccoons nest in attics, when snakes search out birdhouses, when opossums hunt porches for bowls of cat food, when beavers make homes in the numerous ponds and lakes of housing developments, and when coyotes kill pets and livestock for food.

Oklahoma agencies note that the public should first contact a wildlife professional in almost all cases of wildlife interaction, for the safety of both the individual and the

	STATE-LICENSED WILDLIFE REHABILITATORS	USFWS-LICENSED WILDLIFE REHABILITATORS	LICENSED WILDLIFE REHABILITATORS WHO ARE NWRA MEMBERS	LICENSED WILDLIFE REHABILITATORS WHO ARE IWRC MEMBERS
OKLAHOMA	109	19	11	7
TEXAS	288	96	30	17
ARKANSAS	45	13	4	3
KANSAS	15	12	1	1

FIGURE WILDLIFE 8: State and USFWS wildlife rehabilitation licenses and professional membership (2014).

(Source: ODWC; Texas Parks and Wildlife Dept.; Arkansas Game and Fish Commis.; Kansas Dept. of Wildlife, Parks and Tourism; USFWS; NWRA; and IWRC)

animal.⁸¹ The NWCO program and the USDA's landowner assistance program are two programs through which Oklahoma is currently handling wildlife and human conflict. Several national organizations also offer educational resources, tools, and suggestions for dealing with wildlife conflicts in nonlethal ways.⁸² (See **FIGURE WILDLIFE 9**.)

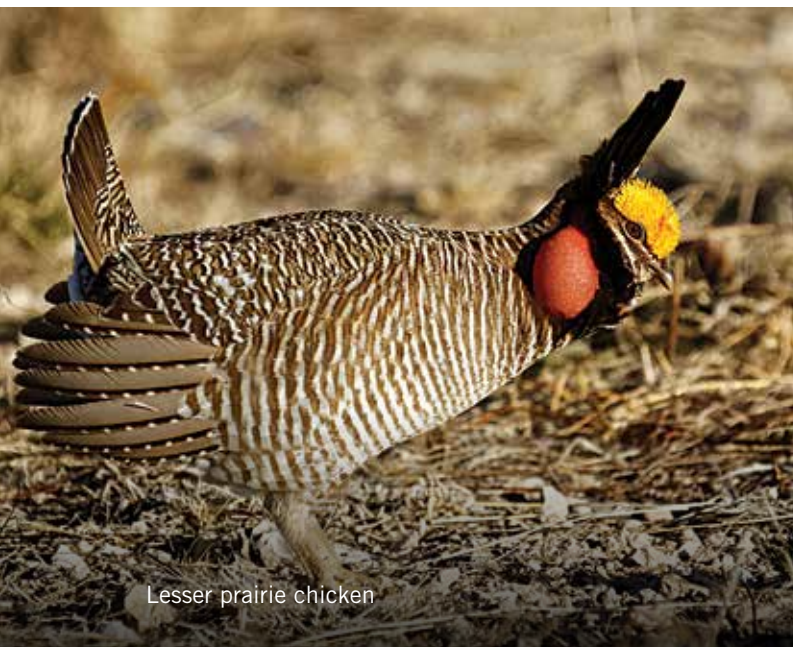
In a recent survey by the Bee Informed Partnership, Oklahoma was one of eight states in which more than 60 percent of hives have died since April 2014. The survey noted that Oklahoma was the hardest-hit state. Eric Pearson, apiary inspector for ODAFF, said that Oklahoma honeybees still seem to be faring better than they are in some states, as there have not been many reports of mites and colony-collapse disorder. Oklahoma's erratic weather may also be a contributing factor to the decline. In May 2015, the Obama administration announced a new \$82 million plan to protect bees and other pollinating insects through constructing pollinator-friendly gardens at federal buildings. The Environmental Protection Agency also proposed new restrictions on the use of pesticides that are highly toxic to bees when crops are in bloom.⁸³

Although wildlife and human interaction can result in unfavorable consequences, there are national and local programs developed urban settings that allow wildlife to thrive. A National Wildlife Federation (NWF) program supports the creation of certified wildlife habitats in various settings for homeowners, apartment dwellers, schools, businesses, and communities. Individuals

who create the habitats must provide the wildlife with food, water, cover, and a place to raise their young.⁸⁴ Currently, there are 1,095 NWF certified habitats in Oklahoma on ninety-four farms, 984 residential properties, sixteen places of work, and one college campus.⁸⁵ The ODWC Wildlife Diversity Program offers a similar certification program, Oklahoma Wildscapes Certification, recognizing individuals and businesses that have landscaped their properties to enhance wildlife habitat. As of January 2014, the ODWC reports that there are 501 certified wildscapes in fifty-nine counties in Oklahoma.⁸⁶

Memorial Purple Martins

In 2012, the Oklahoma Wildlife Services collaborated with the Oklahoma City National Memorial (a memorial dedicated to the victims of the bombing of the Alfred P. Murrah building) when thousands of purple martins roosted at the memorial site before their fall migration. Employees of the memorial complained that bird droppings caused problems for visitors and permanently etched bronze structures. ODWC staff responded to the complaints by implementing a nonlethal noise-and-visual-harassment strategy to encourage the birds to move to a different roosting site.^{87, 88} At one point a fire hose was used to clean the area and resulted in the injury and death of several of the birds. Some individuals and organizations in Oklahoma, along with the Purple Martin Conservation Association, felt the



Lesser prairie chicken

D. LONGENBAUGH/SHUTTERSTOCK.COM



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treatment of the purple martins at the memorial was handled poorly. Rondi Large, executive director of the WildCare Foundation, wrote a letter to the executive director of the Oklahoma City Memorial, stating,

*I remember the bombing like many others but my memories were a little different. We were called at WildCare because the first responders were finding wildlife that were injured in the blast. Even though there was so much devastation, people were stopping to pick up a small bird that was injured and wanted to save it. What a testament to the caring spirit of Oklahomans! Now that the dust has settled and a sacred area is there for all to enjoy, we are blasting families that just need a place to land and rest for the night because they leave bird poop on the walkways...*⁸⁹

As of January 2015, the ODWC reported that the concerns regarding the martins were indirectly resolved. The migratory purple martins have not re-nested in the area since the 2012 incident. The ODWC did not know if the birds' relocation was the result of any actions taken to remove them during 2012.⁹⁰

WILDLIFE PROBLEM	POSSIBLE NON-LETHAL SOLUTION
Disturbed or overturned trash cans	Animal-resistant containers
Birds roosting on roofs and other surfaces	Bird wire, spikes, coils
Gophers in garden	Gopher baskets to catch the animals
Raccoons, squirrels, bats in attic	Chimney caps, call a professional
Raccoons, woodchucks, skunks, squirrels digging under deck	Fencing, scare devices (a suspend beach ball), habitat modification through moving vegetation

FIGURE WILDLIFE 9: Non-lethal wildlife solutions.

(Source: HSUS, http://www.humanesociety.org/animals/resources/tips/top_ten_wildlife_problems.html?credit=web_id86986176)

Hunting and Fishing Violations

In 2013, the ODWC issued 775 hunting or fishing violations in sixty-five counties, with fines ranging from \$25 to \$1,000 and an annual total of more than \$138,000. McCurtain County, in southeast Oklahoma, had the most violations and the highest total dollar amount in fines (**FIGURE WILDLIFE 10**). The most frequent violations in McCurtain County included vehicle use on ODWC-managed lands, hunting or taking of wildlife with the use of a motor vehicle, and spotlighting wildlife.⁹¹

The ODWC staff explained that McCurtain County leads the state in violations due to the county's large hunting-tourism industry. The ODWC surmised either that those visiting McCurtain County were not aware of the regulations for the county or that the number of hunters in the area naturally result in higher violations.⁹²

Trapping

In a 2011 survey on the humaneness of animal-control methods, Trudy Sharp and Glen Saunders of the Australian Government Department of Agriculture, Fisheries, and Forestry, cite several research studies assessing the pain and stress that both retain traps (such as the box traps allowed in Oklahoma) and kill traps inflict on captured animals. Trapped

VIOLATIONS	TOTAL AMOUNT FINED FOR 2013	COUNTIES	COUNTY WITH MOST FREQUENCY
POSSESSION OF WILDLIFE (DEER) NOT LEGALLY TAKEN	\$39,431	25	McCurtain 13.8%
ILLEGAL TAKING OF ANTELOPE, MULE, OR WHITE-TAILED DEER, MOOSE, MTN. LION, OR BIGHORN SHEEP	\$19,696	11	McCurtain 35.5%
SPOTLIGHTING WILDLIFE	\$18,054	23	McCurtain 25.4%
HUNTING/TAKING WILDLIFE WITH THE USE OF A MOTOR VEHICLE	\$15,849	21	McCurtain 32.3%
HUNTING WITHOUT LANDOWNER CONSENT	\$15,849	11	Grant 26.1%

FIGURE WILDLIFE 10: Most costly ODWC violations (2013).

(Source: FOIA request from ODWC, received 2/18/14)

animals have been documented to pull against and bite traps, causing fractures, ripped tendons, edema, blood loss, amputations, tooth and mouth damage, and starvation for the animal. Some animals even attempted to chew through their limbs to free themselves from traps. Leg-hold traps, specifically, have been criticized for trapping non-target wildlife, dogs, cats, and people.⁹³ It should be noted that in Oklahoma traps are legally required to be placed in areas away from pets, livestock, and the public in order to mitigate any harm to those bystander groups.⁹⁴

Born Free USA, a national animal-advocacy nonprofit organization, assigned Oklahoma a grade of "C-" in terms of trapping regulations in 2013. Hawaii received an "A" because there is no recreational trapping in Hawaii. Born Free noted that Oklahoma received positive marks in regards to the prohibition of snares, requiring trappers to check traps every twenty-four hours, and requiring owner identification on traps. Born Free stated the following areas for improvement in regards to traps:⁹⁵

- Prohibiting leg-hold traps
- Requiring trapper reports
- Requiring trapper education
- Recording non-target wildlife
- Prohibiting trapping of bobcats and otters

Organized Hunts

Organizations throughout Oklahoma annually host fund-raising hunts for coyotes and rattlesnakes. Hunt hosts include private groups as well as public city, county, and state organizations.

The large, group-organized hunts must follow the ODWC species-specific hunting-season requirements. Hunters participating in the events must have current Oklahoma licenses. Additionally, Oklahoma regulations prohibit the use of any deleterious, noxious, toxic, or petroleum-based substances in or around any dens or rock crevices for the purpose of removing reptiles or amphibians for the rattlesnake hunts.⁹⁶



WILDLIFE

Rattlesnakes

Rattlesnake roundups are held each spring in the Oklahoma cities of Apache, Mangum, Waurika, Okeene, and Waynoka. These events can attract large numbers of people from across the state and nation, and the Waynoka roundup has been reported to reach 25,000 attendees. Snake roundups are also common in Alabama, Georgia, Kansas, Texas, and New Mexico.⁹⁷

Historically, snake roundups were a way to control local snake populations. Roundups today may include snake served as food, a hunt where participants attempt to capture the longest and heaviest snake or largest number of snakes, and stations where snakes are milked, beheaded, and skinned for educational purposes. The Okeene roundup Web site encourages participants to visit the “Butch Shop” to watch the preparation of rattlesnake for cooking and learn the proper way to prepare the snake so nothing is wasted.⁹⁸ In his book *Rattlesnake: Portrait of a Predator*, Manny Rubio explains that at many roundups large numbers of snakes are trucked in to obtain a greater snake-catch population than the local environment would naturally provide.⁹⁹

Some animal-welfare groups, including the Humane Society of the United States (HSUS), contend that the roundups have evolved into spectacle sports where thousands of snakes are captured and killed for entertainment.¹⁰⁰ The welfare groups cite concerns that the roundups negatively impact wild-snake populations and that methods used to collect snakes are cruel to the animals and can harm the environment. Animal-welfare proponents also argue that many non-target species such as other snakes, turtles, toads, frogs, and invertebrates that inhabit the areas surrounding the hunts or snake dens can be harmed during the events.¹⁰¹

Herpetologist Michael Smith described his experience at a Sweetwater, Texas, rattlesnake roundup in 2001 as involving “miseducation, mistreatment, disrespect for wildlife, destructive collection practices.” Smith says he “condemn[s] the event but not the community; if Sweetwater put on a wildlife appreciation festival, we would be the first ones there to support them.”¹⁰² In an opinion piece for CNN, children’s book author Wendy Townsend likewise argues that rattlesnake roundups teach children that it is okay to kill animals for fun and therefore devalues the lives of animals.¹⁰³ Dr. Bruce Means, executive director of the Coastal

Plains Institute and Land Conservancy, concurs: “The snakes are abused. [Roundups are] not teaching appreciation of nature, but exploitation.”¹⁰⁴

In Oklahoma, there have been reports at roundups of snakes’ fangs being removed with pliers, their mouths being sewn shut for photo opportunities, and snakes being skinned alive at shows. Rondi Large of WildCare confirmed that rattlesnakes with their mouths still sewn shut were taken to WildCare.¹⁰⁵

Those in favor of the tradition of roundups argue that the events have a cultural and economic place in the communities that hold them. Mark Howery, ODWC wildlife diversity biologist, states that roundups have been in the state for decades and that “within the local communities they are often viewed as important tourism events.” Howery contends that the number of rattlesnakes caught at the events is small and that it is hard to determine if such roundups negatively affect the local snake populations.¹⁰⁶ Finally, those who manage the roundups note that the snakes captured are treated humanely. These individuals state that snakes are decapitated at roundups because the interruption of blood flow causes quick brain death for the reptile.¹⁰⁷

Coyotes

In April 2014, the Kirkpatrick Foundation received an e-mail from a concerned citizen in southeastern Oklahoma regarding photographs of coyotes with their mouths zip-tied shut and of coyote carcasses hanging on a fence post. The citizen stated that the hanging carcasses were used as a way for landowners to deter other coyotes from the property (others have noted that property owners display coyotes to show their neighbors that they are helping keep the coyote population down). The citizen also explained that the zip-ties were used during a hunting event so that the hunting dogs would not be injured or bitten by the coyotes. The woman concluded the e-mail by stating that both pictures showed abuse of the coyotes.

When asked about ODWC regulations of coyotes and specifically about the pictures sent to the Kirkpatrick Foundation, Aaron Ghaemi, ODWC furbearer biologist, explained that hanging coyote carcasses from fences is considered improper disposal of wildlife. Ghaemi also stated that the hanging as well as the use of zip-ties during hunt-

ing would be considered illegal under ODWC regulations. Ghaemi contended that anyone caught abusing coyotes, or any animal, is subject to fines and may lose his or her right to hunt and fish in Oklahoma. He also added that any type of illegal actions should be reported to the local game warden.¹⁰⁸

Though the citizen’s e-mail did not state whether the coyotes pictured were part of a competitive hunt, coyote hunts do occur year-round in Oklahoma communities as fund-raising events. As with rattlesnake roundups, prizes are awarded based on the size and number of coyotes killed.

According to Nels Rodefeld of the ODWC, coyote hunting, whether competitive or on private property, is “open season” all year if a person has a valid license and follows published ODWC hunting and trapping regulations.¹⁰⁹ Ghaemi noted that “allowing Oklahomans to humanely harvest coyotes year-round provides a great benefit to their population health and minimizes the conflicts we as humans have with them.” Coyotes do not have a natural predator in Oklahoma, and the decrease in value of their fur has led to a possible increase in coyote numbers in recent years.¹¹⁰

Kevin Grant of the USDA Animal and Plant Health Inspection Service noted that coyotes damaged \$473, 975 worth of property in fiscal year 2014 in Oklahoma. He pointed out that this number was only from the 402 citizens who contacted his department and that the value of unreported damage may inflate that number. Grant also

stated that the Wildlife Services currently has a few proposals to research the activities of coyotes and/or determine ways to limit coyote and human conflict.¹¹¹

In winter 2014, California banned all competitive wildlife hunts, including coyote hunts, that would result in a prize for winning the event. A New Mexico senate panel also proposed a bill banning all competitive coyote hunting in the state. The bill, proposed in spring 2015, did not make it out of committee. At that time, Oklahoma did not have any legislative proposals that would ban any type of wildlife hunts.¹¹²

Harmed/Tortured Wildlife

Each year, Oklahoma wildlife rehabilitators and other private citizens respond to situations in which animals have been deliberately harmed or tortured. Since 1984, Rondi Large of WildCare Foundation has seen many instances in which wildlife were deliberately harmed by people. Large described one instance in which Mississippi kites had their wings broken by golfers who threw their clubs at the birds. She states that wildlife-abuse trends are affected by seasons. For example, during the winter holidays, WildCare sees an increase in the number of animals maimed with arrows or BBs, most likely from children who received bow-and-arrow sets or BB guns as gifts.¹¹³ See **FIGURE WILDLIFE 11** for WildCare 2013 intake numbers. It should be noted that not all of these intake numbers are from tortured wildlife situations.

TYPE	# SPECIES	TOTAL INTAKE	RELEASED	TRANSFERRED	PENDING	EUTHANIZED	DIED	DOA	% REL
RAPTORS	17	361	151	0	8	138	50	14	44.5%
WATERFOWL	33	481	315	0	9	60	86	11	68.3%
SONGBIRDS	79	1683	783	2	46	175	579	98	50.9%
MAMMALS	28	2559	1164	80	39	164	551	121	48.5%
REPTILES	16	196	128	5	0	45	12	6	67.4%
TOTAL	173	5280	2541	87	102	582	1718	250	51.6%

FIGURE WILDLIFE 11: WildCare Foundation wildlife intakes and outcomes (2013).

(Source: Rhondi Large, WildCare Foundation executive director)



WILDLIFE

AGENCY TRANSPARENCY

The USDA Wildlife Services has been criticized nationally for its lack of transparency in reporting operational activities to the public. In June 2014, *The Washington Post* reported that more than four million animals were shot, poisoned, snared, or trapped by Wildlife Services in 2013. Those four million animals included 75,326 coyotes, 12,186 prairie dogs, 3,700 foxes, 973 red-tailed hawks, 866 bobcats, 528 river otters, 419 black bears, and at least three eagles, golden and bald. The *Post* stated that there is little, if any, published information explaining the cause for the kills or the methods Wildlife Services used.¹¹⁴

In November 2012, Representatives Peter DeFazio (D-OR) and John Campbell (R-CA) called for an investigation of the USDA Wildlife Services, particularly its lethal predator-control program. The representatives cited news reports of a Wildlife Services employee posting pictures on social media of himself and his dogs torturing a trapped coyote and also a picture of another employee using leg-hold traps to capture a neighbor's dog.¹¹⁵ In December 2013, Predator Defense, a national nonprofit organization dedicated to protecting native predators and creating alternatives for people to coexist with wildlife, released a documentary film, *EXPOSED: USDA's Secret War on Wildlife*, featuring former federal agents and Congressman Peter DeFazio describing brutal and deceptive practices of the USDA Wildlife Services, including the killing of domestic pets and non-target animals.¹¹⁶ Also that December, the Center for Biological Diversity, Project Coyote, and Animal Welfare Institute filed a petition with the USDA to reform the ways in which the Wildlife Services killed and captured wildlife.¹¹⁷

In June 2014, Kevin Shea, administrator for the USDA Animal and Plant Health Inspection Service, responded to the petition and abuse allegations, stating that those managing the wildlife programs “adhere to the public trust doctrine and love and respect our nation's wildlife and animals. They simply recognize that managing human-wildlife conflicts sometimes requires lethal control.” Shea said that the allegations against the agency contained false information and that the number of animals killed each year by Wildlife Services is a small percentage of the overall animal populations. He stated that a majority of animals killed each year were birds that ate crops, polluted livestock water and feed, posed risks for airplanes, and

roosted in large numbers in public neighborhoods. Shea stressed that Wildlife Services developed and used nonlethal wildlife-management tools to move, without harming, nearly eighteen million animals in 2014.¹¹⁸

When asked about transparency issues concerning the ODWC, Russ Horton, ODWC lands and wildlife diversity supervisor, explained that the agency issues press releases weekly (and sometimes more frequently) to media outlets and that the agency's Web site is often updated with new information. Horton stated that all agency activities are federally funded and are therefore made available to the public in periodic reporting. Horton finally noted that any rule changes by the agency must involve electronic and public meeting solicitations for input and be approved by the ODWC Commission at regularly scheduled meetings.¹¹⁹ The research performed for this survey did not show any reports of Oklahoma criticism of the ODWC or USDA Wildlife Services specifically.

COMMERCIALIZATION OF WILDLIFE

Today, federal and state laws regulate most commercial wildlife use. Commercial breeders across the country sell wildlife as “pets,” including various mammal, bird, and reptile species. Examples of commercial-wildlife enterprises in Oklahoma include deer farms, fee hunting, wildlife pet trade, fur trapping, and raising animals for fur.

In 2012, the Wildlife Society, a professional organization for individuals who support the humane treatment of wildlife, published an article stating that the privatization and commercialization of wildlife species may threaten the public trust by creating markets and incentives for the illegal exploitation of publicly owned wildlife.¹²⁰ The Wildlife Society contends that commercialization of wildlife, whether legal or illegal, can place monetary value on both live and dead animals.

Delwin Benson, in *The Biology of Deer*, notes the positive impact of private control—through hunting and commercial enterprises—on the management of wildlife species in communities. Benson insists that private citizens have the natural right to benefit from wildlife and recreation found on their properties. Benson closes his chapter by stating that allowing landowners to use their land for commercial wildlife enterprises will ultimately protect the natural environment from being developed by agricultural, industrial, and residential interests.¹²¹

“WILD ANIMALS WOULD not stay in a country where there were so many people. Pa did not like to stay, either. He liked a country where the wild animals lived without being afraid.”—LAURA INGALLS WILDER



Displaying animal carcasses is not a deterrent for other predators but a message to fellow ranchers and the public about kill numbers. The practice is against ODWC regulations.

SHANE WILSON/SHUTTERSTOCK.COM



WILDLIFE

Wildlife as Pets

Wildlife are kept as pets by private citizens for a variety of reasons. Some individuals may want to treat the animals as surrogate children, while others use the wildlife as symbols of status and power. Individuals may not have been able to resist purchasing a baby wild animal or keeping a rescued animal after saving it, while others may view owning wild animals as a way to reconnect with the natural world.

Wild animal “pets” are often purchased or found when the animal is young. Although proper food, housing, and care are crucial to the healthy development of young animals, most private citizens who own such pets may not have the knowledge of or access to specific food that wild babies require. Rondi Large of WildCare estimates that 60 percent of young wildlife brought into rehabilitation are “kidnapped” animals (animals thought to be orphaned when in fact the wildlife parents are nearby); 20 percent are animals people do not want in their area; and only 20 percent are injured or actually orphaned.¹²²

Other intrinsic problems associated when private citizens who own undomesticated wildlife include inadequate and inappropriate living space and poor socialization. Wild animals raised in poor conditions can either develop an artificial fear of humans or show an increase in aggressive behavior when interacting with humans.

The HSUS article “Should Wild Animals Be Kept as Pets?” describes how animals, as they age, can become too difficult to manage by private citizens. Rescue centers frequently receive calls from pet owners requesting the organization to take their wildlife pets. The most common requests are typically for raccoons, opossums, and various raptors.¹²³

As Lauren Slater notes in *Wild Obsession*, wildlife pets become animals “for which nature has no place.” Rondi Large agrees and says that keeping wild animals as pets can change an animal so that it views humans as a source of food and companionship. Large concludes that when such a change occurs rescue and rehabilitation centers are faced with a wild animal that will be difficult to reintroduce back into its natural habitat.¹²⁴



JOEL SARTORE/GETTY IMAGES

Red-eared slider

RECOMMENDATIONS

The areas for improvement for wildlife in Oklahoma include:

Embrace widespread education about proper hunting practices and respect for wildlife. While Oklahoma has a culture of valuing wildlife and wild places and most hunters have an appreciation for the skills required to hunt game animals, in many cases there remain opportunities to abuse and disregard wild animals. Further, educating the public about less consumptive methods of wildlife management and appreciation are vital to ensuring a humane Oklahoma.

Study the prevalence, practices, ethics, and laws related to canned hunts and contest kills such as rattlesnake roundups and coyote hunts in Oklahoma. More focus groups and research into modern attitudes and behaviors about these practices is needed.

Educate the public about urban wildlife conflict resolution. These encounters will only increase as suburban and urban development continues.

Encourage humane versus lethal wildlife conflict-resolution techniques. Promote education programs that foster tolerance of and coexistence with wildlife rather than conflict resolution through killing, trapping, etc.

Develop minimum care standards and record-keeping systems for wildlife rehabilitators. The more than 100 state and/or federally licensed wildlife rehabilitators in Oklahoma will benefit from participation in professional organizations such as the National Wildlife Rehabilitators Association and International Wildlife Rehabilitation Council.

Educate the public about the twenty-one state and federally listed threatened, endangered, or rare species found in Oklahoma. With education, the public can help protect those animals and be inspired to care for other species, too.



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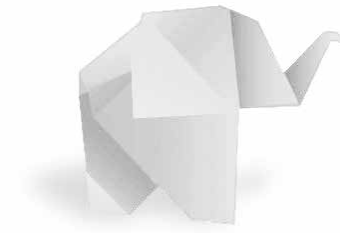


Great horned owl

NIKOGRAHER/GETTY IMAGES



TIM FLACH



EXOTICS

It is believed that more varieties of exotic animals live in North American homes than are cared for in American zoos.¹ In Oklahoma, exotic animals are found in homes, zoos, animal sanctuaries, and circuses. Because of the different ways animals in this group are used, labeled, and cared for, the exotics may be the most extreme and diverse of all the groups in this study. Exotic animals have needs that can easily be misunderstood by the general public, and, in turn, these animals may also be easily abused and neglected, or pose a danger to wildlife and people, particularly with regard to disease or escape.



EXOTICS

WHERE THEY ARE FOUND

Oklahoma Statute Title 29 § 2-109.1 defines exotic wildlife as “any and all species of wildlife that are not indigenous to, or that may not be found in the wild, in the continental United States.”² Facilities, groups, and individuals that own exotic animals in Oklahoma include private citizens, commercial breeders and dealers, animal sanctuaries, and both accredited and unaccredited zoos. The individuals who breed and sell exotics include pet wholesalers, pet breeders, laboratory-animal dealers and breeders, animal brokers, auction operators, and promoters who give animals as prizes. Exotic-animal exhibitors include zoological parks, marine-mammal shows, animal performances, roadside zoos, circuses, promotional exhibits, and animal-fighting ventures.

Zoos, circuses, and marine-mammal parks are regulated under the Animal Welfare Act (AWA) regulations and inspected for compliance on a regular basis. In 2015, the United States Department of Agriculture (USDA) Animal and Plant Health Inspection Service (APHIS) reported seventeen USDA-licensed facilities in Oklahoma housing exotic primates, felines, mammals, and hoofstock. The number and type of animal kept at these facilities are shown in **FIGURE EXOTICS 1**. One facility in Broken Arrow had its licenses to exhibit exotic primates, felines, and other federally protected animals revoked by the USDA.³

Of all the animals in our study, the least documented animal grouping is exotic or non-native wild animals in private possession. Although the APHIS inspects and regulates individuals and businesses that sell, transport, broker, or exhibit animals to the public, private owners of non-native animals who do not engage in licensed activities are currently unregulated and unlicensed in Oklahoma, except where city ordinances may prohibit the ownership of certain species.⁴ Moreover, exotics in private ownership are currently not required to carry vaccination tags or have identification micro chips.

ACCREDITED ZOOS

The first U.S. zoo opened in 1874 in Philadelphia, with 282 mammals on exhibit. In Oklahoma, the first zoo is recognized as starting in 1902, when a deer was donated to a park near downtown Oklahoma City.

Today, an estimated 143 million people visit North American zoos annually.⁵ Attendance at Oklahoma-accredited zoos for fiscal year 2014-2015 was more than 1.68 million. Both the Tulsa Zoo (637,700) and the Oklahoma City Zoo and Botanical Garden (1,046,074) had record attendance from July 2014 to June 2015.⁶

The Association of Zoos and Aquariums (AZA) is the primary accrediting organization for zoos and aquariums in the U.S. AZA membership is comprised of zoos and aquariums that publicly exhibit animals and support animal conservation. Those institutions undergoing AZA certification must meet specific standards for animal management, health, nutrition, and behavioral enrichment. Facilities are required to be re-accredited by the AZA every five years.⁷

As of the March 2015 AZA-accreditation commission hearing, 228 zoos and aquariums were AZA-accredited in seven countries across the globe. The AZA organizations manage 751,931 animals, including around 1,000 threatened or endangered species. There are 213 AZA organizations in forty-seven states in the U.S. The Oklahoma City Zoo and Tulsa Zoo are the two AZA-accredited institutions in Oklahoma.⁸

The Oklahoma City Zoo houses an animal collection of approximately 1,500 species. The zoo’s vision is to be “one of the world’s premier zoological institutions, providing visitors and the community with exemplary recreation and educational opportunities.”⁹

Dr. Teresa Randall, Oklahoma City Zoo director of education, reports that the zoo’s education department presented 982 programs to more than 47,000 people



	ACTIVE LICENSES	CLASS A	CLASS B	CLASS C	CLASS R (RESEARCH)
EXOTIC PRIMATES	17	-	4	12	-
EXOTIC FELINES	11	-	1	10	-
EXOTIC MAMMALS	4	1	1	2	-
EXOTIC HOOFSTOCK	1	-	-	1	-
ALL OTHER COVERED SPECIES	52	5	10	32	5

FIGURE EXOTICS 1: Active USDA APHIS licenses in Oklahoma.

*(Source: USDA APHIS Animal Care Information System Search Tool, accessed June 2015) *Please note that some facilities are licensed to house more than one type of exotic animal.*

across the state in 2012 and 2013. Forty-two animals are used in the zoo’s educational programs and live in an area separate from the other zoo animals. Three animals are brought to each program, and participants are allowed to touch one animal for teaching purposes. According to Randall, every animal in the department is trained, given enrichment activities similar to those of the other animals in the larger zoo, and closely monitored for signs of stress. If an animal shows signs of sickness or stress, the zoo makes the animal unavailable for program use. The zoo does not allow the public to hold or pose for pictures with the animals.¹⁰

The Tulsa Zoo also has around 1,500 animals. The zoo’s mission and vision is to inspire “passion for wildlife in every guest, every day,” and to be the “premier family recreation destination and leading wildlife education conservation resource in Oklahoma.”¹¹

The Tulsa Zoo has a number of education and conservation programs. As noted on the organization’s web site, since 1997, the Tulsa Zoo has supported more than 360 conservation projects dedicated to saving wild animals and wild habitats. Ellen Averill, marketing and public-relations director for the Tulsa Zoo, reports that

the zoo reaches more than 69,000 school-aged children through field trips and educational programming. Averill also noted that the zoo has conservation projects, such as the Conservation Garden, to educate visitors about sustainable landscaping in their own communities.¹²

UNACCREDITED ZOOS

Only a fraction of U.S. zoos currently hold accreditation by the AZA or by other accrediting organizations. A 2012 Michigan State University study reported the following Oklahoma zoos as not holding AZA accreditation: Arbuckle Wilderness in Davis, Garold Wayne (G.W.) Interactive Zoological Park in Wynnewood, Little River Zoo in Norman (since closed), Oakhill Center for Rare and Endangered Species in Luther, Tiger Safari in Tuttle, and Oklahoma Aquarium in Jenks. Unaccredited zoos open to the public are required to be licensed by the USDA and must follow AWA standards. Unaccredited institutions may also hold other federal and state licenses and permits.¹³

SANCTUARIES

The Global Federation of Animal Sanctuaries (GFAS) defines an animal sanctuary as “an establishment that provides lifetime care for animals that have



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been abused, injured, abandoned, or are otherwise in need.”¹⁴ Animals in sanctuaries may come from private owners, research laboratories, government authorities, the entertainment industry, and zoos. Because sanctuaries severely limit public access to the animals at their facilities, the organizations are not required to be licensed by the USDA. Some sanctuaries admit volunteers or visitors but primarily for educational or fiscal purposes. According to the Humane Society of the United States (HSUS), animal sanctuaries should “prohibit commercial trade of animals, observe strict ethical practices in fundraising and the acquisition and disposition of animals, and not breed animals unless breeding is part of a bona fide breeding-for-release program.”¹⁵

The GFAS is the only globally recognized organization providing accreditation standards for animal sanctuaries and wildlife rescue centers.¹⁶ The mission of GFAS includes promoting and validating “excellence in sanctuary management and humane, responsible care of animals.” GFAS-accredited sanctuaries must meet standards for animal housing, facility administration, animal nutrition, appropriate veterinary care, well-being and handling of animals, staff training, safety policies, and record-keeping.¹⁷ GFAS-accredited sanctuaries are not allowed to commercially trade animals or animal parts, exhibit animals, or breed the animals unless the breeding is part of a nature release program.¹⁸ In 2015, there were 159 GFAS-accredited sanctuaries worldwide and 120 in the U.S. The Horse Feathers Equine Center is the only GFAS sanctuary in Oklahoma. Since 2006, Horse Feathers Equine Center rehabs horses that either go on to be adopted through the Adoption Program or are kept on site at the sanctuary to live out their lives.¹⁹

A second sanctuary-accrediting body in the U.S. is the American Sanctuary Association (ASA). The ASA states it is an organization that “provides a more efficient means in which to find and identify quality facilities in which to place homeless, abused or abandoned animals, facilitate the exchange of information among animal caregivers, and to create public awareness of this national tragedy.” ASA lists thirty-six accredited sanctuaries in the U.S. There are no ASA-accredited sanctuaries in Oklahoma.²⁰

CIRCUSES

Circuses and carnivals are considered traveling animal exhibits. The AWA is the only federal law that directly regulates circus animals, also known within the act as animals used in “transport” or “exhibition.” Oklahoma does not currently have any laws prohibiting or regulating traveling shows or circuses within the state borders. Under Oklahoma Statute Tit. 29 § 4-107, circuses are exempt from the provision requiring organizations to obtain a commercial wildlife breeder’s license when in possession of native wildlife in the state.²¹

Since the late 1930s, the staff and animals of fifteen national circuses have headquartered their employees and animals in Hugo, Oklahoma, during the winter months. Currently, only the Carson & Barnes and the Kelly Miller Circus spend the winter in Hugo. In an interview regarding the circus, a staff member of the Carson & Barnes Circus said that the mild winters, affordable standard of living, and community brought their circus back to winter in southeastern Oklahoma each year.²²

The Carson & Barnes Circus web site outlines that a veterinarian inspects its animals each month for health and safety purposes and that its facilities are routinely inspected by the USDA. Likewise, the Kelly Miller Circus web site reports that the circus employs eleven staff members specifically for the “care, comfort, and welfare of our animal partners.”²³ The site also explains that the company regularly contacts animal professionals and veterinarians to stay on trend with the best practices for their animals.

As of 2015, the Carson & Barnes Circus holds the second-largest herd of Asian elephants in North America. Because the elephant trade was banned in the 1970s, circuses now breed their own elephants for use in circus performances. Since the start of its breeding program, Carson & Barnes have had few live elephant births, with only one or two of the calves living to adulthood. In 1993, the circus created the Endangered Ark Foundation, a nonprofit with a mission to “ensure the future of Asian elephants in North America” through educating the public on the status of the Asian elephant. The foundation manages a retirement ranch

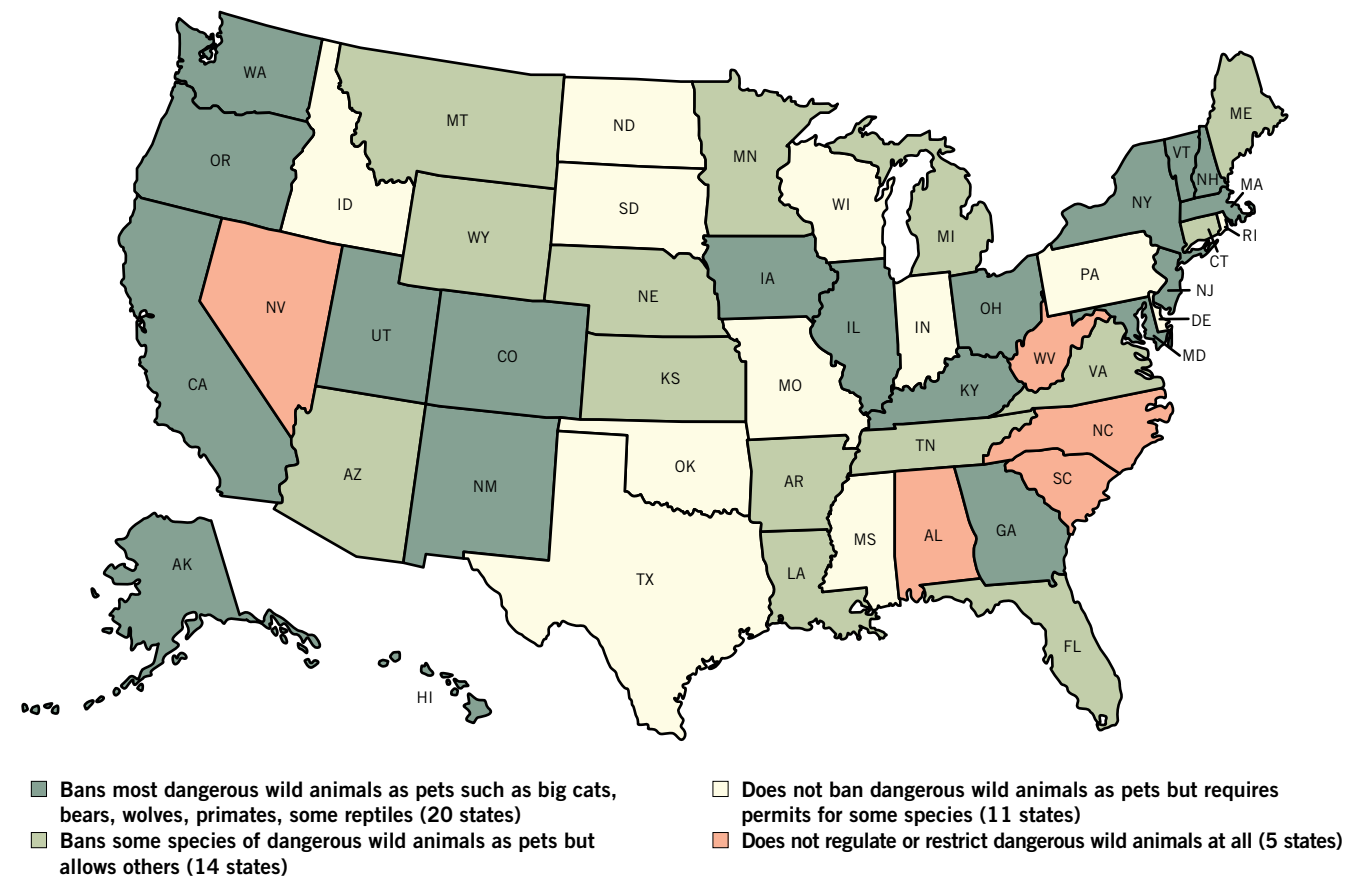


FIGURE EXOTICS 2: Legal restrictions on exotic ownership (January 2015).

(Source: HSUS, <http://www.humanesociety.org/assets/pdfs/wildlife/exotics/state-laws-dangerous-wild-animals.pdf>)

for circus elephants in Hugo.²⁴ Dr. Jim Laurita, manager of an elephant rescue in Hope, Maine, and former handler for the Carson & Barnes Circus rescue, was killed in September 2014 by the first two Asian elephants at the facility. The elephants were removed to the Endangered Ark Foundation after the incident.²⁵

PARTY ANIMALS

In Oklahoma, several organizations and businesses provide exotic animals for educational programs,

petting events, appearances at local libraries, scout meetings, church groups, and birthday parties. Many of these businesses allow event participants to take pictures with and hold the animals exhibited at the events. Animals available for programs by these Oklahoma businesses include exotic and native wild animals such as sugar gliders, a blue-tongued skink, a hedgehog, a ruffed lemur, an Asian otter, a baby tiger, kangaroos, a fennec fox, and a coatimundi. Such organizations include Zoo to You and Critter Tales.²⁶



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CURRENT LAW AND POLICY

Federal Law

The USDA APHIS licenses and inspects all “individuals or businesses with warm-blooded animals that are on display, perform for the public, or are used in educational presentations,” including circuses and carnivals, zoos, petting farms, animal acts, wildlife parks, marine mammal parks, and some sanctuaries (if open to the public). Facilities that are exempt from USDA licensing include livestock shows, purebred-dog and purebred-cat shows, dog and horse races, and rodeos.²⁷ USDA licensing requires exotic animal-facilities to follow AWA standards. AWA standards prohibit animal fighting events like dogfights, bear baiting, and cockfights.

AWA regulations for those licensed organizations and businesses that exhibit or house exotic animals include requirements for “housing, handling, transportation, sanitation, nutrition, water, general husbandry, veterinary care, and protection from extreme weather

and temperatures.” USDA-licensed facilities must adhere to specific record-keeping standards and follow safety measures to minimize risks to animals, staff, and the public. The USDA APHIS inspects facilities as part of the licensing process. APHIS will also inspect a facility if the agency receives complaints that it is violating safety and/or health standards.²⁸

The three types of USDA APHIS licenses for dealers, exhibitors, transporters, and researchers are:²⁹

1. Class A licenses: Breeders that deal only in animals they breed and raise.
2. Class B licenses: Brokers, operators of auction sales, and dealers who procure and sell animals. Those holding this type of license do not breed the animals they sell.
3. Class C licenses: For exhibitors who show or exhibit animals to the public.

State Law

Prior to 2003, Oklahoma owners of exotic wildlife were required to hold an Oklahoma Department of Wildlife Conservation (ODWC) commercial breeder’s license. In 2003, the law was changed to require only owners of native cats and bears that grow to fifty pounds or more to be licensed with the ODWC.³⁰ Nels Rodefeld, information and education chief at ODWC, spoke about the change in the law: “With respect to the ownership of non-native cats and bears, our position then, and now, is that these animals are not native and that they do not fall under our jurisdiction. With respect to the hunting of these animals, our agency’s rules already prohibit the hunting of any cat or bear growing to a weight of fifty pounds or more at a commercial hunt area.”³¹

As of 2015, the only non-native or exotic wildlife regulated by the Oklahoma Department of Agriculture, Food, and Forestry (ODAFF) are feral swine, farmed cervidae, and farmed aquaculture, according to Dr. Rod Hall, state veterinarian for the ODAFF.²² Dr. Justin Roach, state veterinarian and director of the feral-swine and farmed-cervidae programs, says that the farmed-cervidae program was moved in 2003 from ODWC commercial and non-commercial-breeding license programs to the ODAFF because the farmed-deer

“SOME PEOPLE TALK to animals. Not many listen though. That’s the problem.”

—A. A. MILNE, *Winnie-the-Pooh*

industry wanted to “more-or-less be recognized and treated as a livestock industry.”³²

ODAFF-licensed aquaculture facilities are prohibited from propagating or selling native aquatic species obtained from native waters, such as bighead carp, paddlefish, and alligator snapping turtle, among others, says Dr. Alicia Gorczyca-Southerland, state veterinarian and director of farmed aquaculture. Any authorized representative of ODWC has inspection authority of operations engaging in commercial production of aquatic species licensed by ODAFF. Facilities are inspected to ensure that, if a release of the propagated aquatic species should happen, they cannot be introduced into native waters.³³

In 2012, Oklahoma House representative Sue Tibbs proposed House Bill 2191 to prohibit the intentional breeding of captive big cats or any species of non-human primates. In 2013, the proposed Oklahoma Responsible Exotic Cat Ownership Act—State Bill 178—would require a \$100 permit fee for exotic-feline possession or breeding and require a permit to own an exotic cat (including non-native cheetahs, snow leopards, clouded leopards, etc.). Owners applying for permits would be required to meet husbandry and care standards specific to the type of exotic cat owned. The 2012 and 2013 bills both died in the legislature.³⁴

See **FIGURE EXOTICS 2** for the different types of bans and restrictions on private ownership of exotic animals throughout the U.S.

WELFARE CONCERNS

Lack of Adequately Regulated Care

Exotic animals have specific nutritional, behavioral, and social needs that an owner may not be able to provide in captivity. When an exotic animal’s basic needs are not met, the exotic can pose a threat to the owner’s safety, the animal’s welfare, and the safety of the public.³⁵

Little River Zoo in Norman, Oklahoma, closed in 2010 due to financial constraints.³⁶ The zoo cared for nearly 400 animals and provided educational tours to the public for more than fifteen years. The zoo was a registered nonprofit, funded through donations and admission fees, and licensed by the USDA as an exhibitor. The zoo’s

closing exemplifies the tenuous existence many unaccredited zoos may face when trying to pay for the care of animals by surviving primarily on private donations without longterm financial plans.

Janet Schmid, Little River Zoo director, explained that when the zoo closed, the exotic primates, exotic cats, bears, kangaroos, and various farm animals were under the jurisdiction of the federal government and, therefore, were to be sent to federally approved facilities through a bidding system.³⁷ Two black bears, known as Blossom and Delilah, were taken to the Lions, Tigers, and Bears (LTB) sanctuary in California.

When LTB volunteers went to retrieve the bears, they found “appalling conditions and inexcusable activity.” In a letter to animal rescues in the Norman area, LTB director Bobbi Brink described the bear’s enclosure as “shameful—full of feces, hair, decomposing food and carcasses,” while other areas of the zoo were “covered in rat and mouse droppings.” She concluded her letter by stating, “Sanctuaries across the country exist ... so that wild animals, if not able to live in their natural habitats, can live with dignity, respect and, above all, humanely.”³⁸ Brink requested the City of Norman investigate into the conditions of the zoo.

CBS News, People for the Ethical Treatment of Animals (PETA), and the HSUS have reported on the breeding, selling, and mistreatment of exotic animals at the G.W. Interactive Zoological Park.³⁹ According to the organization’s web site, the G.W. Park’s mission is to provide lifelong homes for abandoned, misplaced, and abused animals. G.W. Park says it has rescued more than 1,400 animals and placed 1,200 animal in zoos and sanctuaries around the world. The park has hundreds of animals, including lions, bears, monkeys, kangaroos, camels, wolf hybrids, and chimpanzees.⁴⁰

In April 2014, USDA APHIS inspectors issued a citation to G.W. Park for not providing veterinary care to an injured black bear. The USDA APHIS report states that a male black bear was found injured with a four to eight-inch-long laceration on his lower back. The wound had been initially sutured by an attending veterinarian; however, when the sutures burst, the wound was re-sutured by the owner of the facility. The wound later reopened once, again and the bear was eventually euthanized.⁴¹ PETA first reported the bear incident to the ODWC after a visitor to



JENNIFER D'AGOSTINO

Achara and Malee at the Oklahoma City Zoo



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the zoo contacted PETA about a bear that was “lethargic and appeared unable to stand.”⁴² G.W. Park is also under USDA investigation for other incidents, including two tiger cub deaths in May 2013 and 23 tiger cub deaths from 2009 to 2010.⁴³

In March 2015, the Carson & Barnes Circus leased an elephant to the Moolah Shriners. The Moolah Shrine Circus mishandled the animal and placed it in a situation that could have harmed circus attendees. The USDA filed a formal complaint against Carson & Barnes Circus for its involvement in leasing the elephant.⁴⁴

The HSUS has stated that a USDA license does not guarantee humane treatment of exotic animals despite regulations and inspections. HSUS contends that USDA-licensed institutions that are unaccredited by professional organizations have not gone through a specific certification process and that the standards of care and quality of this type of zoo can vary greatly.⁴⁵

The HSUS has listed the following concerns regarding the USDA’s ability to protect exotic animals, including:⁴⁶

1. Federal licenses are difficult for the agency to revoke.
2. An individual can obtain a license for a \$40 application fee after passing a routine inspection, regardless of the person’s expertise or experience in animal care. Audits issued in 1996 and 2010 by the Office of the Inspector General found that numerous USDA licensees were actually pet owners, not bona fide exhibitors.
3. Some USDA licensees have been convicted of serious and violent crimes.
4. Since the USDA typically does not confiscate animals when a license is revoked, state agencies are often responsible for seizing, placing, and transporting dangerous animals from non-compliant facilities.
5. If a USDA license is revoked, instances have occurred where a new license is issued to a friend or family member of the original licensee, allowing an AWA offender to continue business as usual under a different name.

PRIVATE OWNERSHIP

Exotic animals can be obtained through a variety of channels in Oklahoma. *Animal Finders Guide*, *Rare*

Breeds Journal, *Wings & Hooves*, and *Animals Exotic & Small* are nationwide catalogs that advertise exotic animals for sale to private individuals. Likewise, exotic animals can also be purchased at swap meets, expos, and auctions, through the Internet. The Ensign auction in Prague, Oklahoma, is an exotic-animal auction in Oklahoma.⁴⁷

In a 2009 report naming the five worst states for exotic pets, the HSUS stated that Oklahoma’s lack of regulation regarding exotic-animal ownership has allowed the state to “become [a] haven for exotic animal breeders, dealers, and menageries.”⁴⁸ Currently only a few Oklahoma city ordinances (including the cities of Broken Arrow, Midwest City, and Oklahoma City) restrict possession of exotic wildlife within city limits.⁴⁹

Unfortunately, the lack of regulation of private ownership of exotics can result in harm to the animals and the public. Born Free USA, a nonprofit that reviews legal issues concerning animal welfare, maintains a database of exotic-animal incidents—exotic-animal escapes or exotic-animal attacks on humans and other animals—from 1990 to the present. As of July 2014, the databases listed 2,058 total incidents in the U.S., eighty-two of which were human deaths as a result of exotic animals. Between 1995 and 2014, the database lists twenty-three animal incidents in Oklahoma (FIGURE EXOTICS 3).⁵⁰ Twelve of the incidents included animals owned by private citizens. It should be noted that Cynthia Armstrong, Oklahoma HSUS director, reports that there may be more animal incidents in Oklahoma than in the Born Free USA database, as Born Free relies primarily on media stories for animal reports.⁵¹

Canned Hunts

Captive hunting—also referred to as “shooting preserves,” “canned hunts,” or “game ranches”—are private trophy-hunting facilities where individuals pay to kill exotic and native animals held within an enclosed and heavily managed area. Animals at these hunts may be bred on site or are sourced from private dealers and breeders, zoos, circuses, and other facilities.⁵²

The HSUS estimates that there are more than one thousand captive hunting operations in the U.S. Some individuals in the hunting community contend that the set up at these hunting operations do not follow the central hunting concept of “fair chase.” The HSUS reports that because the

DATE	LOCATION	INCIDENT
JAN 03, 2014	SAPULPA	A man found a dead 7-foot-long constrictor in his workshop believed to be an abandoned or escaped snake.
OCT 05, 2013	WYNNEWOOD	A tiger mauled an employee at the G.W. Exotic Animal Park, resulting in severe damage to her arm.
APR 03, 2013	PAWNEE COUNTY	A monkey escaped from its enclosure and was spotted on a residential road. A nearby business owner was able to safely capture him with fruits. The monkey sustained injuries to his tail while on the run.
AUG 27, 2012	TUTTLE	A teenage boy caught an alligator believed to be a former pet.
DEC 04, 2009	TULSA	An injured giraffe was transferred from an unaccredited zoo to the Tulsa Zoo. The giraffe later died.
NOV 04, 2009	ENID	An Asian elephant escaped from the Family Fun Circus at the Garfield County Fairgrounds and was hit by an SUV. The couple in the vehicle were not injured, but the elephant sustained a broken tusk, an injured leg, and bumps and bruises. A local vet treated the elephant’s injuries.
SEP 28, 2009	NORMAN	A 3-year-old boy sustained nonlife threatening injuries when he wandered too close to a lynx enclosure at the Little River Zoo. The 45 pound lynx was monitored and zoo officials conducted an investigation to avoid a repeat incident.
FEB 04, 2009	WYNNEWOOD	A 12-foot-long, 800-pound alligator that lived in a taxidermist’s backyard pond escaped the area when the taxidermist died. The animal was taken to G.W. Exotic Animal Park.
OCT 22, 2008	BROKEN ARROW	A man was attacked while feeding a 1,000-pound liger. The man later died.
MAY 25, 2008	NOBLE	WildCare Foundation picked up a diamondback rattlesnake whose mouth was sewn shut. The foundation’s vet removed the stitches and placed the snake with an appropriate reptile facility.
AUG 28, 2006	OKLAHOMA CITY	Police corralled an escaped “pet” kangaroo with their cars.
DEC 21, 2005	TULSA	A bobcat hybrid bit a child at a shopping mall after the owner took the animal with him to the mall.
NOV 13, 2004	BRISTOW	An African serval escaped from its cage at Wilderness Safari and was shot and killed by a hunter.
MAR 17, 2004	TULSA	A 2-foot-long alligator was found in a woman’s flower bed.
MAR 31, 2003	ADAIR COUNTY	A tiger attacked a volunteer handler at Safari Joe’s Rock Creek Exotic Animal Park. The woman died from her injuries. The tiger belonged to International Wildlife Center of Texas, which leased the building in the park.
DEC 01, 2000	OKLAHOMA CITY	A 5-year-old capuchin monkey bit a boy at Home Depot. The monkey was taken to a shelter to be tested for communicable diseases and released after testing negative.
SEP 20, 1998	OKLAHOMA CITY	A tapir (a large hog-like animal) pulled an Oklahoma City Zoo keeper into the cage. The woman suffered facial injuries, severe arm injuries, and a punctured lung. The cause of the attack is unknown.
MAR 08, 1998	TULSA	Two elephants at the Tulsa Zoo pushed on the walls of their enclosure until the fence crumpled under their weight.
APR 27, 1997	OKLAHOMA CITY	A leopard from the Oak Hill Center for Rare and Endangered Species exotic-animal rehabilitation center escaped from its cage and killed a woman. The animal was later shot by police.
JAN 31, 1995	HUGO	A 200-pound tiger was captured 10 days after escaping from his cage.

FIGURE EXOTICS 3: Exotic-animal incidents in Oklahoma. (Source: Born Free USA)



EXOTICS

animals are often hand-fed, they tend to lose their natural fear of people. Other concerns regarding captive hunts include the high population densities at the hunt facilities, which can increase the risks of disease transmissions and pose a threat to animals inside and outside the facility. Escape of the dangerous wild animals is another risk.⁵³

There are no federal laws banning the practice of captive hunts, and only half of the states restrict or ban the activity. Also the AWA does not apply to private hunting preserves.⁵⁴ In Oklahoma, individuals are allowed to apply for a Commercial Hunt Area License. This license allows for the establishment of a game area where “any legally acquired wildlife or domesticated animals that may be legally hunted for sport” can be hunted. The hunt areas can be open year-round, and animals that are to be hunted must be tagged following ODWC regulations. Hunt areas must meet requirements for fence height and type, signage surrounding the property, and removal of wildlife such as deer or elk prior to opening of the facility. The ODWC will also inspect the property. Large cats and bears are excluded from the license and cannot be hunted under the regulations of the Commercial Hunt Areas.⁵⁵

Oklahoma is one of five states in which captive wild animals are protected under its animal anti-cruelty laws, Oklahoma Statute Ann. 21 § 1680 - 1700. Because this statute defines an animal as any mammal, bird, fish, reptile or invertebrate, including wild and domesticated species, other than a human being, exotic animals are included in this anti-cruelty protection.⁵⁶

STRESS

Animal-protection groups have argued that animals used for entertainment and even education purposes may suffer from stress, abuse, and exploitation. Rondi Large, executive director of the WildCare Foundation in Noble, believes that using wild animals—who would naturally avoid humans—in education programs, transporting them in crates, and putting them on display where people can see and touch them can be stressful and inhumane. She notes that some organizations use non-releasable wildlife in programs since the animals are not candidates for release. WildCare currently does not use live animals in its education programs.⁵⁷

The HSUS and the American Society for the Prevention of Cruelty to Animals advocate for a ban on any mental and physical harassment of wild animals for the purpose of entertainment or their use in unnatural behavior (i.e., jumping through hoops, wrestling with people, etc.). Both organizations argue that undue stress on animals in entertainment can also result in animal attacks.⁵⁸

In 2015, the Ringling Bros. and Barnum & Bailey Circus announced it would phase out the use of elephants in circus performances after using the animals in performances for 133 years. Animal-protection groups have noted that circus elephants often show signs of distress by head-bobbing, swaying, and rocking. The circuses claimed that anti-elephant ordinances along with public pressure helped push the company to phase out the use of elephants from the circus shows.⁵⁹

In summer 2015, animal-protection-group protesters petitioned to ban the Kelly Miller Circus from performing in South Russell, Ohio. The protesters cited videos of cruelty by animal handlers and the danger of spreading tuberculosis from the elephants. City officials eventually canceled the circus performances in response to threats of gun violence if the circus took place. Those who started the petition stated they did not make the threats.⁶⁰ As of August 2015, neither the Kelly Miller nor the Carson & Barnes announced it will end the use of elephants in its shows.⁶¹

ZOO CONSERVATION AND EDUCATION

In the 1970s, animal-protection groups questioned the ethics of exhibiting zoo animals in what the groups considered restrictive enclosures. Although the zoos of today are far different from the bar cages of early zoos in the nineteenth and early twentieth centuries, some animal-welfare groups contend that the current ways zoos are structured are not effective or humane in teaching the public about animals nor are most zoos set up to effectively conserve wild-animal populations.

Research shows that the average zoo visitor spends thirty seconds to two minutes at each animal exhibit and that many visitors completely ignore informational signs. Animal-welfare groups contend that technology—videos, virtual images, etc.—should be used as an alternative to zoo exhibits and education programs. Other protection groups have suggested “exhibit(ing)” free-ranging (and,

“THE LOVE FOR all living creatures is the most noble attribute of man.” —CHARLES DARWIN

if possible, rehabilitated) animals instead of captive ones. In this zoo model, visitors would be placed behind protection barriers in the habitats of animals, rather than placing animals in cages.⁶²

Animal-protectionist groups argue that zoos “are not good models for captive breeding and species conservation.”⁶³ In practice, zoos cannot successfully breed a large enough animal population to create the diverse gene pool to ensure a healthy population for the future generations. The groups maintain that animals bred in zoos produce only more zoo animals and that those animals can never be successfully reintroduced into the wild. In short, those against argue that the current zoo breeding conservation systems do not ensure the survival of animals in the wild.

Those who promote the use of animals in zoos and educational programs contend that zoos save wild animals that would otherwise not survive in the wild. In *The Soul of All Living Creatures*, Vint Virga, veterinary behaviorist and writer, states, “Breeding programs between zoos ensure that species avoid extinction... Without the conservation efforts of zoos beyond their walls, many species would fatefully be one step closer toward extinction.”⁶⁴

In recent decades, zoos hired veterinarians and scientists to create “enriching,” more natural environments to help teach the public about conservation and the animals they hold in their collections. New developments in zoo design include habitats in which several species are free to roam, play, and investigate their environment and other animals in that environment.⁶⁵

Finally, those in favor of the conservation mission of accredited zoos contend that the experience teach the public about awareness of and empathy toward animals. Virga states, “There will always be an entertainment component to zoos, but in general, they’ve done a great job evolving to the broader goals to include conservation, education, and research.”⁶⁶ Amy Stephens, naturalist supervisor at the Oklahoma City Zoo and Botanical Gardens, and author of *Images of America: Oklahoma City Zoo, 1960-2013*, agrees with this concept, and states, “A zoo experience provides a personal moment where you can connect, fall in love with animals, and develop a passion for nature.”⁶⁷

RECOMMENDATIONS

While other U.S. states have laws requiring registration of exotic animals or banning the ownership of exotics altogether, Oklahoma is currently without a law that regulates all exotic animals. This limited regulation means that we do not know the number of exotic animals currently in the state. Unfortunately, our lack of information makes exotics one of animal groups most vulnerable to abuse and holds the greatest potential for creating dangerous situations for the public.

Prohibit ownership of dangerous wild animals as pets in private settings. Oklahoma currently regulates only the ownership of native cats and bears over fifty pounds.

Educate the public on requirements for public safety issues related to and animal-welfare conditions of wild-animal ownership. Until the ownership of exotic animals is banned in the state, educating the public on the dangers of owning or handling wild animals is important in preventing disastrous events from occurring.

Encourage and support animal sanctuaries in Oklahoma to achieve accreditation from the Global Federation of Animal Sanctuaries. This ensures that certain conditions are met in animal care, handling, and housing as well as long-term financial planning. There currently is one sanctuary accredited by the Global Federation of Sanctuaries, and no sanctuaries are accredited by the American Sanctuary Association in the state.

Support the development of a disaster plan for all zoos, sanctuaries, and circuses in the state. The need for a disaster plan for any animal institution is important to adequately protect the animals.

Educate the public about exotic-animal conservation.

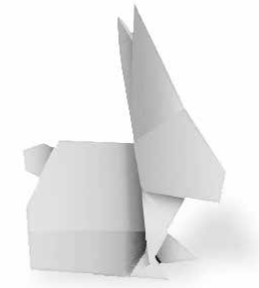


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TIM FLACH/GETTY IMAGES



LABORATORY & RESEARCH ANIMALS

Laboratory animals are used in the United States for research, testing, and educational purposes in the advancement of biomedical and behavioral research, in product development, and as educational specimens. Animal testing has aided in the medical development of cancer-screening tests, the use of skin grafting for burn victims, and the discoveries of the insulin, polio, and rabies vaccines. The National Association for Biomedical Research has noted that animals “are essential for research that seeks to understand complex questions of disease progression, genetics, lifetime risk, or other biological mechanisms of a whole living system that would be unethical, morally unacceptable, or technically unfeasible or too difficult to perform in human subjects.”¹ Animal-protection groups contend, however, that experimentation performed on laboratory animals is unwarranted for medical discoveries. The National Anti-Vivisection Society’s Web site counters that “experimenting on animals too often fails to translate into cures and treatments for people. And even if it did, would it really be progress when it perpetuates the suffering of other sentient creatures?”²



“TRUE BENEVOLENCE, OR compassion, extends itself through the whole of existence and sympathizes with the distress of every creature capable of sensation.” —JOSEPH ADDISON

LABORATORY & RESEARCH ANIMALS

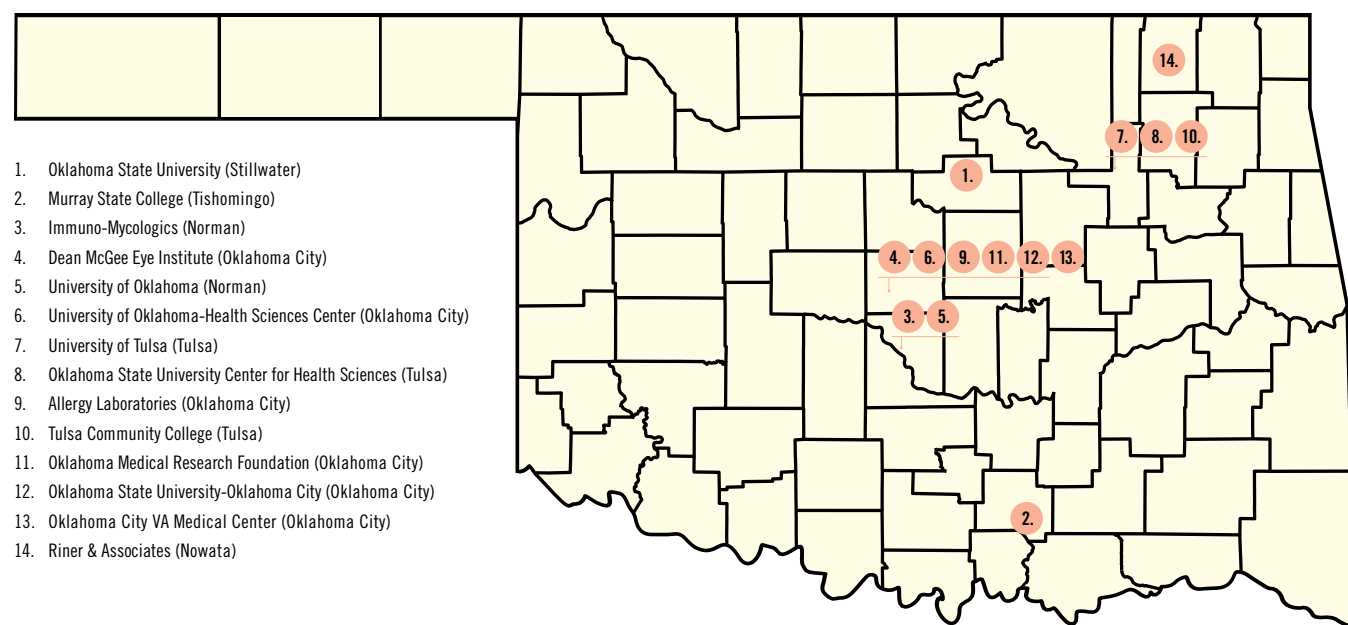


FIGURE LAB 1: Institutions in Oklahoma registered with the USDA to use animals for testing.

(Source: USDA-APHIS Animal Care Information System Search Tool, May 2015)

HISTORY

Animals have been used throughout history to improve our knowledge of disease and illness. Greek physicians, such as Aristotle and Galen, experimented on animals to understand anatomy, physiology, and pathology. In modern times, animals have been used to test drugs and consumer products.

In recent centuries, animal-protection groups such as the American Anti-Vivisection Society (AAVS), formed in 1883, questioned the ethics and reliability of using animals to advance medical knowledge. However, the use of animals in the development of vaccines and the establishment of germ theory during the mid-nineteenth to early twentieth centuries strengthened public support of using animals for medical and research testing. Between World War I and

II, animal experimentation was used to test insulin, sulfa drugs, and products for human consumption. In her book, *From the Prevention of Cruelty*, Diane Beers writes that by the 1960s “nearly every product that landed in a shop or showroom was first tested on the planet’s nonhumans.”³

The 1966 passage of the Animal Welfare Act (AWA) established the federal regulation of laboratory animals by creating care and welfare guidelines for research institutions regulated by the United States Department of Agriculture (USDA). The AWA has been amended several times since its establishment, including the Improved Standards for Laboratory Animals Act of 1985, which clarified the meaning of “humane care” for laboratory animals by establishing specific regulations for sanitation, housing, and ventilation in research settings.

WHERE THEY ARE FOUND

In the U.S., laboratory animals are used for three main purposes:⁴

- **Biomedical Research:** Animals are used as models to better understand human and animal neuropathic and biological processes involved in diseases, injuries, and disorders, including cardiovascular studies, cancer research, infectious-disease research, as well as in vaccine and drug research and testing. Animals are also used in behavioral research related to cognition, mental illness, drug addiction, and the sensory systems.
- **Education:** Animals are used in educational institutions for teaching purposes, including dissection, animal handling and husbandry, and training in surgical techniques.
- **Product Testing:** Animals are used to test the safety and toxicity of products such as drugs, cosmetics, and personal care and household products, as well as medical devices, under the assumption that animals respond to the products similarly to the way humans would respond.

As of May 2015, fourteen Oklahoma institutions were registered with the USDA to perform research with animals. Nine of the Oklahoma facilities were related to educational training or research, four institutions were businesses that tested various products, and one institution was related to medical treatment.⁵ FIGURE LAB 1 shows the locations of those institutions.

TYPES OF ANIMALS USED IN RESEARCH

Because they are small in size, easily bred, relatively inexpensive to care for, and only live two to three years, mice and zebra fish make up a majority of research animals in the U.S.⁶ Research has shown that mice and rats have a “physiology and genetic make-up that closely resemble that of humans” and are, therefore, considered good models for testing products and researching human diseases.⁷ Other species used in laboratories include non-human primates, dogs, cats, rabbits, guinea pigs, and aquatic species such as fish.⁸

The 2014 USDA Animal and Plant Health Inspection Service (APHIS) annual report showed that more than 834,000

animals were used for research in the U.S., including 6,394 animals in Oklahoma institutions. A majority of the animals used in Oklahoma were guinea pigs, cats, dogs, rabbits, and animals in the “all other covered species” category. It should be noted that mice and rat numbers are not included in the APHIS reports.⁹ FIGURE LAB 2, 3, AND 4 show the number and type of animals used in Oklahoma and U.S. 2014 research.

CURRENT LAW AND POLICY

Animal Welfare Act

All institutions that conduct research with AWA-protected animals—including dogs, cats, guinea pigs, rabbits, non-human primates, sheep, hamsters, and certain farm animals—are required to register with the USDA APHIS and follow federal regulations protecting those animals. Birds, rats, and mice are excluded from the AWA. Farm animals used for consumption, improving animal nutrition, or other production purposes are also excluded from the AWA; however, guidelines regulating the care of livestock are found under other research oversight-systems.¹⁰

The USDA APHIS makes at least one unannounced inspection a year to each research institution.¹¹ Federal agencies that use animals for research are not required to register with the USDA and are not inspected by APHIS, but are “responsible for complying with all USDA standards of animal care and for submitting an annual report to USDA on the use of regulated laboratory animals.”¹²

AWA animal-care standards include instructions on veterinary care and record-keeping. USDA APHIS guidelines are species-specific and include dietary restrictions, transportation handling policies, and appropriate housing criteria—such as cage size, room temperature, and humidity levels. Institutions must also report to the USDA the number of animals used in research as well as the type of testing to which the animals are subjected. If an animal experiences pain or distress during testing, an institution must provide a written justification as to why the test required the pain or distress.¹³

USDA-registered institutions are also required to create an Institutional Animal Care and Use Committee (IACUC). The committee is responsible for monitoring the institution’s compliance with AWA regulations and other applicable laws and policies as well as approve all animal-related



LABORATORY & RESEARCH ANIMALS

ANIMAL GROUP	UNITED STATES: TOTAL ALL PAIN TYPES	OKLAHOMA: TOTAL ALL PAIN TYPES	OKLAHOMA: NO PAIN, NO DRUGS	OKLAHOMA: WITH PAIN, NO DRUGS	OKLAHOMA: WITH PAIN, WITH DRUGS	OKLAHOMA: HELD BUT NOT USED YET*
CATS	21,083	658	611	0	47	0
DOGS	59,358	562	417	0	145	117
GUINEA PIGS	169,528	1,742	1,629	0	113	0
HAMSTERS	121,930	12	12	0	0	0
NON-HUMAN PRIMATES	57,735	99	0	0	99	640
OTHER FARM ANIMALS	27,393	508	408	0	100	20
PIGS	45,392	211	152	51	8	0
RABBITS	150,344	515	28	400	87	4
SHEEP	10,315	59	3	0	56	0
ALL OTHER COVERED SPECIES	171,375	2,028	1,614	70	344	268
TOTAL	834,453	6,394	4,874	521	999	1,049

FIGURE LAB 2: APHIS animal usage by fiscal year, totals.

*This column are those animals being bred, acclimatized, or held for use in teaching, testing, or surgery but not yet used. These numbers not included in total pain types. (Source: USDA annual report, 2014)

procedures conducted. Appointed by the institution's chief executive officer, IACUC members must be qualified to evaluate the institution's animal program, facilities, and proposed procedures. Each committee is legally required to have at least three members. The members should include a doctor of veterinary medicine with experience in laboratory animal science, a scientist who has experience with experimental animals, an individual not affiliated with the institution who represents the general interests of the public, and a non-scientist. A member of the committee may cover more than one of the four roles.¹⁴

The IACUC inspects the research facilities every six months. During inspections, IACUCs are tasked with ensuring AWA requirements are met, including, but not limited to:¹⁵

1. Procedures involving animals will avoid or minimize discomfort, distress, and pain to the animals.
2. The principal investigator will have considered alternatives to procedures that may cause more than momentary or slight pain or distress to the animals and will have provided a written justification of the procedure.
3. Procedures that may cause more than momentary or slight

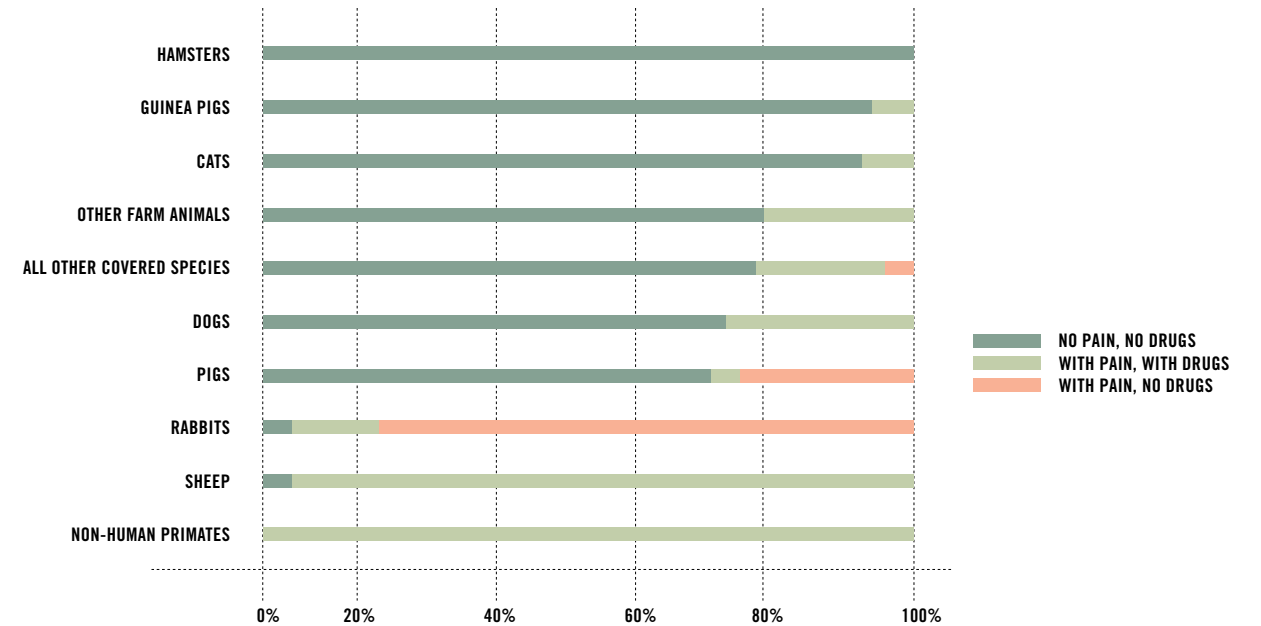


FIGURE LAB 3: Oklahoma research-animal pain percentages.

(Source: USDA-APHIS Animal Care Information System Search Tool, 2014)

pain or distress to the animals will be performed with appropriate pain-relieving drugs unless withholding such drugs is scientifically justified, in writing, by the principal investigator and will continue only for the necessary period of time.

4. Any animal that may experience severe or chronic pain or distress that cannot be relieved will be painlessly euthanized as soon as possible. If such a protocol does not provide for an early termination of the animal, then the principal investigator must justify this procedure.
5. The animals' living conditions must be appropriate for their species and must contribute to their health and comfort and be monitored by the attending veterinarian.
6. Medical care for the animals must be available and provided as necessary by a qualified veterinarian. This includes after hours, weekends, and holidays.

Commercial Breeders

Class A and Class B licensees who breed, purchase, or otherwise acquire animals to sell for use in research, testing, or education must also follow AWA regulations. Breeders and dealers are required to have a veterinarian on staff or to be regularly visited by a veterinarian who provides adequate health care for the animals kept at their facilities.

In 1990, the AWA was amended to prescribe a minimum holding period of five days for animals in public shelters before the animal could be sold to animal dealers. Class B dealers are required to hold an animal obtained from a shelter for ten full days before it can be sent to a research facility.¹⁶

While Class A dealers often "purpose-bred" dogs and cats for biomedical-research institutions, Class B dealers sell dogs and cats they have procured from animal shelters, individuals owners, or other sources. The Class B-acquired animals are



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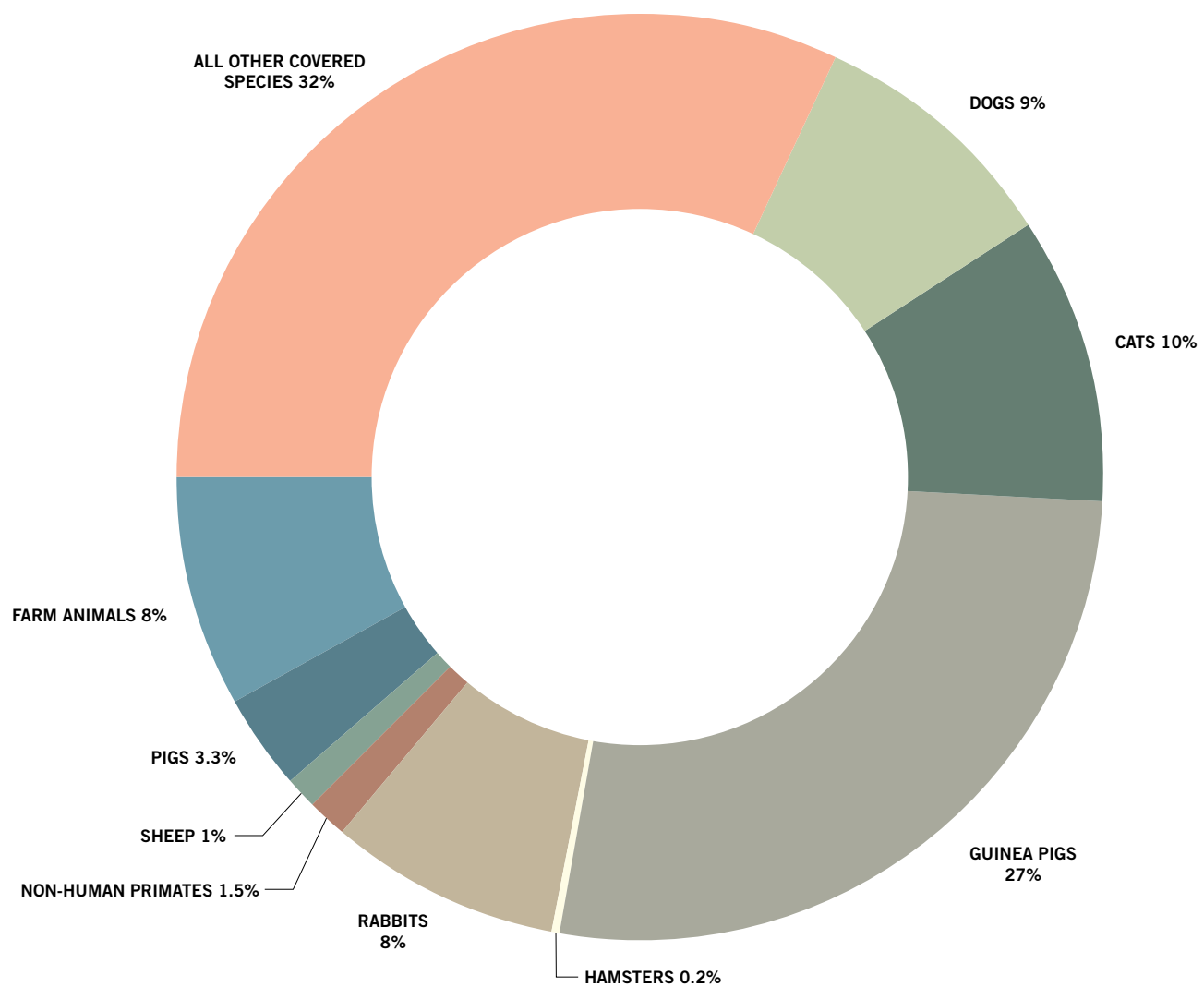


FIGURE LAB 4: Animals used in USDA laboratories in Oklahoma (Fiscal Year 2014).

(Source: USDA-APHIS Animal Care Information System Search Tool, 2014)

“BIOLOGICALLY SPEAKING, THERE are no distinct lines between species; they are just fuzzy categories.”—ROGER FOUTS

commonly referred to as “random source” dogs or cats. In response to public concern regarding the sources for Class B dogs and cats and the loss of public trust for institutions using Class B dealers, the National Institutes of Health (NIH) commissioned the National Academy of Sciences (NAS) to study the use of and scientific need for random-source animals in NIH-funded projects. In 2009, the NAS report showed that Class A breeders could provide an adequate number of dogs and cats for NIH research needs. Based on these findings, the National Institutes of Health (NIH) discontinued funding for research institutions using Class B cats in 2012 and ended funding for institutions using dogs from Class B dealers in October 2014.¹⁷

Health Research Extension Act

While the AWA covers the majority of research animals, it does not cover rats, mice, or birds. Under the Federal Health

Research Extension Act of 1985, institutions funded by the U.S. Public Health Service (PHS) are required to follow AWA care standards for *all* vertebrates, including mice, rats, and birds.¹⁸ In addition, the Health Research Extension Act requires all medical research funded through the NIH to conform to the Public Health Service (PHS) Policy on Humane Care and Use of Laboratory Animals and to follow the *Guide for the Care and Use of Laboratory Animals*, developed by the Institute for Laboratory Animal Research and the National Research Council.¹⁹ The *Guide* is regarded by some as the international standard for the care and use of laboratory animals and outlines the requirements for the use of IACUCs. The NIH, Centers for Disease Control and Prevention, and Food and Drug Administration (FDA) all follow PHS animal care and use standards.²⁰ The NIH’s Office of Laboratory Animal Welfare (OLAW) is the primary overseer of PHS Policy regulation and interpretation.²¹

NINA LEEN/THE LIFE PICTURE COLLECTION/GETTY IMAGES



In the 1970s, Dr. Roger Fouts, a primate researcher, taught American Sign Language to chimpanzees such as Nim and Lucy (depicted here) at the now defunct Institute of Primate Studies in Norman, Oklahoma.



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PHS Policy requires institutions to have an OLAW-approved domestic Animal Welfare Assurance document before carrying out activities involving vertebrate animals. This assurance outlines the organizational structure of the animal-care and use program, the IACUC membership roster (NIH-funded facilities must have five members), facility and species inventory, and the most recent report of program and facility activities. Sample wording in the assurance should include:²²

- This institution will comply with all applicable provisions of the AWA and other federal statutes and regulations regarding animals.
- This institution acknowledges and accepts responsibility for the care and use of animals involved in activities covered by this assurance. This institution will ensure that all individuals involved in the care and use of labo-

ratory animals understand their individual and collective responsibilities for compliance with this assurance, and other applicable laws and regulations pertaining to animal care and use.

Food, Drug, and Cosmetic Act

Under the Food, Drug, and Cosmetic Act of 1938, the FDA regulates the safe production and labeling of food, drugs, and cosmetics in the U.S. The FDA is responsible for ensuring that human and veterinary drugs, vaccines, medical devices, cosmetics, dietary supplements, and products that emit radiation are safe for human consumption and/or are properly labeled with warnings for consumers.²³ The FDA also regulates all foods, with the exception of USDA-regulated meat from livestock and poultry and some egg products.



SIQUI SANCHEZ/GETTY IMAGES

Toxicity testing for cosmetics and household products includes the Draize Eye Irritancy test—named for John Draize, an FDA scientist who developed the test—in which a liquid, granule, or powder is placed in a rabbit’s eye. Rabbits are often used in this testing as their eyes do not have tear ducts to wash away substances. The effects of the substance placed are observed and recorded for regular intervals over a four to seven-day period. Draize also developed a skin-irritancy test in which the back of an animal is shaved and abraded. A substance is then put on the animal’s back and observed for any irritation every twenty-four hours for the next two to three days.²⁴

The FDA does not have the authority to require safety testing before cosmetics are sold to the consumer. However, the FDA states that a manufacturer should “employ whatever testing is appropriate and effective for substantiating the safety of their products ... prior to marketing.”²⁵

In drug development, pre-clinical testing at research institutions has historically included animal experimentation to determine if further clinical investigation on humans and animals is warranted before a product is made available to the public. The FDA’s Animal Rule (21 Code of Federal Regulation 314.600 through 314.650 and 21 CFR 601.90 through 601.95) states that, if a drug is developed to prevent serious or life-threatening conditions caused by lethal or disabling substances and the use of humans in testing would be considered unethical, the FDA may grant marketing approval based on animal testing if the testing appears to show that the drug will likely produce clinical benefit in humans. The four criteria that must be met for the FDA to rely on animal-testing evidence in product development and research are:²⁶

1. There is well-understood pathophysiological mechanism of the toxicity of the substance and its prevention or substantial reduction by the product.
2. The effect of the product is demonstrated in more than one animal species expected to react with a response predictive for humans, unless a single animal species represents sufficient model for prediction.
3. The animal study is clearly related to the desired benefit in humans, generally the enhancement of survival or prevention of major morbidity.
4. The data on kinetics and pharmacodynamics of the product in the animal testing allows selection of effective dose in humans.

The Animal Rule also states the use of an animal model is to be evaluated on a case-by-case basis and that the choice and number of animal species must be appropriate with regard to the disease or the use of the drug.

Although the Animal Rule allows for animal testing, the FDA Web site notes that manufacturers and institutions must consider alternatives to animal testing during product and drug development. In a 1985 amendment to the AWA, the USDA created the Animal Welfare Information Center, which provides a database for alternatives to painful animal experiments. As discussed earlier in this section, a facility’s IACUC committee is also responsible for ensuring that alternatives are used when appropriate.²⁷

Despite the FDA’s policy emphasizing minimum use of animals, the Physicians Committee for Responsible Medicine, a nonprofit organization of physicians, dietitians, and scientists promoting animal-testing alternatives in research and the use of nutrition in treating and preventing disease, states that years of experience with the FDA has made animal testing the “default standard,” as companies and research facilities now expect the FDA to prefer toxicity test results from at least two species of animals.²⁸ The end result of this expectation, according to the Physicians Committee, is more animals being tested than regulations and FDA recommendations actually require.

In March 2014, Representative James Moran Jr. (D-VA) introduced the Humane Cosmetics Act (H.R. 4148), which would phase out all U.S. cosmetic testing on animals over a three-year period and eventually prohibit the sale of cosmetics in the U.S. from countries where products are tested on animals. The bill was sent to the House Energy and Commerce Committee for review but was not enacted.²⁹

Chimpanzee Health Improvement, Maintenance, and Protection Act

In the 1980s, chimpanzees were used as models for research of acquired immunodeficiency syndrome (AIDS). In 1997, the NIH acknowledged that chimpanzees were no longer a necessary research model and imposed a moratorium on the chimpanzee breeding program and began looking for solutions for its “surplus” of chimpanzees.³⁰ Although the NIH initially considered euthanizing all the laboratory chimpanzees, the agency abandoned the idea in favor of sending them to sanctuaries. In 2000,



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the Chimpanzee Health Improvement, Maintenance, and Protection Act created a system of sanctuaries for chimpanzees that had once been used in government research.

In 2013, an NIH work committee reevaluated its use of chimpanzees in research. The committee reported that chimpanzee research rarely leads to advancements in fighting infectious diseases of humans. The working group concluded that “the NIH should emphasize the development and refinement of other approaches, especially alternative animal models (e.g., genetically altered mice), for research on new, emerging, and reemerging diseases.” Based on these recommendations, the NIH retired 85 percent of NIH-owned chimpanzees and retained only fifty animals for use in any future research projects. These fifty were also intended as a way to review the continued use of chimpanzees in research.³¹

On November 16, 2015, NIH director Francis Collins announced the NIH will end its federal support of chimpanzee experimentation and retire the remaining fifty chimpanzees. Relocation of retired animals will occur as space in the Federal Sanctuary System becomes available.³²

In Oklahoma, Mindy’s Memory, a primate sanctuary, takes in monkeys (not chimpanzees) retired from research and the closing of zoos as well as animals that were once pets. Founded in the late 1980s, Mindy’s provides animals with a natural environment, a nutritious diet, and medical care.³³

Oklahoma Statutes

As discussed in the companion animal section of this report, Oklahoma is the only state that legally mandates pound seizure or the turning over of impounded cats and dogs from publicly funded animal shelters to state-registered research institutions for use in experiments. The research institutions included under this law are schools or colleges of medicine, dentistry, pharmacy, veterinary medicine, or agriculture, plus medical diagnostic laboratories, hospitals, or other educational or scientific establishments having to do with the investigation of or instruction concerning the structure or functions of living organisms: i.e., the causes, prevention, control, or cure

of diseases or abnormal conditions of human beings or animals. Although the NIH stopped funding research institutions that use Class B animals in 2012 and 2014, under Oklahoma law, institutions not receiving NIH funding can still use Class B animals.

On November 1, 2012, the authority to regulate pound seizure was transferred from the State Board of Health to the Oklahoma Department of Agriculture, Food, and Forestry (ODAFF). Institutions that use dogs and cats for scientific or educational activities must now apply to the ODAFF for a license.³⁴

Oklahoma Statute Ann. tit. 4 Chapter 13 § 391 - 402 states that any animal that cannot be identified through an owner tag or implant can be sent to a research institution after being held for fifteen days at an Oklahoma public shelter. Animals with a mark of ownership can be taken to a research institution after remaining unclaimed at a shelter for thirty days. Owners turning over their animals to Oklahoma shelters may request that their animal(s) not be used in research.³⁵

Under current law, Oklahoma research institutions must return any previously impounded dog if the dog is later identified and claimed by its owner. The research institution is not liable, however, to the owner for any injury or illness or subsequent death of the animal which resulted from the transportation, detention, or proper use of the animal in scientific and educational activities. Violations of the pound-seizure act by research institutions are misdemeanors in Oklahoma, and the ODAFF may revoke the license of any violators of regulations.³⁶

Attempts to repeal Oklahoma’s pound-seizure law were made in 1997. Although the repeal attempts failed, the law was amended to allow Oklahoma municipalities to establish ordinances that would require a longer holding period before an impounded animal could be handed over to research facilities or to allow cities to completely opt out of the pound-seizure law. Oklahoma City and Tulsa both have passed anti-pound-seizure ordinances.³⁷

In 2008 and 2009, attempts were made to expand the existing law to include use of animal carcasses for research purposes and also make it a criminal penalty for shelter staff to refuse to turn over animals.³⁸ Neither proposal passed.

“THE QUESTION IS not, ‘Can they reason?’ nor, ‘Can they talk?’ but rather,

‘Can they suffer?’ —JEREMY BENTHAM

	USDA-APHIS	PUBLIC HEALTH SERVICE (NIH)	AAALAC
UNITED STATES	1,043	1,411	Approx. 690*
OKLAHOMA	14	8	5

FIGURE LAB 5: Number of licensed or accredited research facilities using animals in the United States and Oklahoma (2014).

* AAALAC reports 700 accredited organizations in the U.S. and Canada; nine Canadian organizations are listed on the AAALAC Web site. AAALAC also notes that its numbers change as programs merge or drop out. The numbers above for AAALAC are anticipated accredited units as of 12/31/14.

(Sources: USDA-APHIS Animal Care Information System Search Tool, acisearch.aphis.usda.gov/LPASearch/faces/Warning.jspx; NIH Office of Laboratory Animal Welfare, Domestic Institutions with a PHS Approved Animal Welfare Assurance, grants.nih.gov/grants/OLAW/assurance/300index.htm; AAALAC Accredited Organizations, www.aaalac.org/accreditedorgsdirectorysearch/index.cfm; Christian Newcomer, AAALAC executive director, phone conversation 12/12/14)

OVERSIGHT GROUPS & PRINCIPALS

Professional Organizations

First formed in 1965 by veterinarians and animal scientists, the Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC) is an international, private member-based nonprofit organization that “promotes responsible treatment of animals in science through a voluntary accreditation program.” AAALAC accreditation is based on compliance with three primary animal-care guidebooks: the *Guide for the Care and Use of Laboratory Animals*; the *Guide for the Care and Use of Agricultural Animals in Research and Teaching*; and the *European Convention for the Protection of Vertebrate Animals Used for Experimental and Other Scientific Purposes, Council of Europe*.³⁹

The guide of the AAALAC is divided into four main sections: institutional policies and responsibilities; animal environment, housing, and management; veterinary medical care; and physical plan. In 1971, the NIH announced it would accept accreditation by AAALAC as proof that an institution was in compliance with government policy on care for laboratory animals.

AAALAC offers training to assist institutions in meeting care standards. The organizational mission of the AAALAC is to serve as a “bridge between progress

and animal well-being.” According to the organization, AAALAC’s voluntary accreditation process shows that institutions are meeting “the minimum standards required by law, and are also going the extra step to achieve excellence in animal care and use.”⁴⁰

More than 950 organizations, institutions, and companies in forty-one countries have achieved AAALAC International accreditation. Of the 700 accredited programs in North America, Oklahoma had five at the end of 2014, which included the Department of Veterans Affairs Oklahoma City Veterans Affairs Health Care System, Emergency Preparedness and Response Solutions (whose USDA status has since been canceled), Oklahoma Medical Research Foundation, the University of Oklahoma (OU) Health Services Center, and three colleges within Oklahoma State University; OSU Center for Veterinary Health Sciences, OSU College of Engineering, Architecture and Technology, and OSU College of Human Sciences.⁴¹ (FIGURE LAB 5)

Another oversight group, the American College of Laboratory Medicine, started in 1961, is made up of veterinarians who specialize in laboratory-animal medicine. Members are called Diplomates and must understand the requirements of animal-research funding agencies, comply with protecting both health and animal welfare in research, and show integrity in research programming.⁴²



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The Three R's

As far back as 1959, William M. S. Russell and Rex L. Burch called for the “three R’s for the removal of inhumanity” in science and research. Reduction, the first R, calls for reducing the number of animals used in research and the number of procedures that require the use of whole animals. Refinement involves refining practices to reduce animal suffering and distress and to encourage animal well-being. The final R, replacement, involves replacing animal testing with alternative methods and replacing higher animal species with lower species. The three R’s are often used to develop policy in most research institutions and organizations throughout the world today and the USDA provides details about the three R’s on its AWA Web site.⁴³

WELFARE CONCERNS

Citations in Oklahoma

A 2013, the University of Oklahoma Health Services Center received USDA citations for improper euthanasia of dogs by applying a 9-volt battery to the dogs’ hearts to cause death and for not using proper anesthesia during experimentation on the dogs. Gary White, OU division of comparative medicine director, responded to the allegations by stating that none of the dogs were in pain when euthanized, but also that OU research facilities no longer used 9-volt batteries to euthanize research dogs.⁴⁴

In June 2014, the University of Oklahoma Health Services Center was again cited by the USDA for five issues, including pain medication and anesthetics not being

given during testing, a rabbit not receiving veterinary care when showing signs of illness, a baboon exhibiting signs of psychological distress, and sanitation issues caused by insects at the facility.⁴⁵

During 2014 and 2015, the University of Oklahoma was cited sixteen times for noncompliance with AWA.⁴⁶ A recent citation occurred in January 2015 during USDA inspections of the Fort Reno Science Park. The park—operated by OU—was found to have buildup of debris, grime, and excrement in animal cages. From 2014 to 2015, twenty-three young baboons died at the facility. After a local news helicopter flew over the facility in the summer of 2015, media outlets asked the facility for information regarding the number of animals housed, how the animals were acquired, the facility’s budget, and other facility-administration questions.⁴⁷

OU president David Boren ordered an internal review of the facility in August 2015, which would focus on “the alignment of the baboon program with OU’s newest research strategic plan; the resources required to ensure ongoing compliance of the program with the USDA rules; and the financial sustainability of the program with declining or uncertain federal funding.”⁴⁸ By September, the school officially announced that the baboon program would be phased out over the next few years. In November 2015, James J. Tomasek, vice president for research at OU, said when questioned about the reports, “Similar to their natural environment in the wild, deaths occur in the colony, particularly deaths of newborns and infants due to accidents and/or aggressive adult baboon behavior. The University takes seriously any death in the colony, with evaluation for cause of death by OU Health Sciences Center veterinarians, the OU Health Sciences Center Office for Animal Welfare Assurance, and, when appropriate, a PhD-level baboon behavior expert.”⁴⁹

OSU has also received USDA citations in recent years. A September 2013 USDA inspection found violations regarding expired medications in the equine-research park, failure to notify the attending veterinarian of hair loss on a fawn, and not providing elevated resting platforms for cats.⁵⁰ In September 2014, the animal-rights organization Stop Animal Exploitation NOW! filed a complaint with the USDA against OSU, citing violations such as the deaths of seventy-six rats during shipment to the OSU campus,

unapproved surgeries on cows, unapproved euthanasia of guinea pigs, and the use of gerbils as raptor food. OSU spokesman Gary Shutt responded to the petition by stating the university “is committed to the humane care and use of all animals,” and that the federal agencies were satisfied with OSU’s response to the incidents.⁵¹

Pain Alleviation

As described on the USDA’s web site, the fundamental goal of the Animal Welfare Act and its accompanying regulations is “the minimization of animal pain and distress via the consideration of alternatives and alternative methods.” The AWA requires researchers to provide pain medication or anesthesia to minimize pain and distress experienced by animals during testing; however, if deemed scientifically necessary, pain alleviation can be withheld during research processes.

The USDA uses three categories to classify pain type in research projects involving animals:⁵²

1. Animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs. (Category C, USDA APHIS Form 7023)
2. Animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used. (Category D, USDA APHIS Form 7023)
3. Animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. An explanation of the procedures that produced the pain or distress and the reasons for not using drugs must be reported to the APHIS. (Category E, USDA APHIS Form 7023)

The USDA’s 2014 report showed that, nationwide, more than 72,000 animals protected under the AWA were subjected to testing that caused pain, but did not

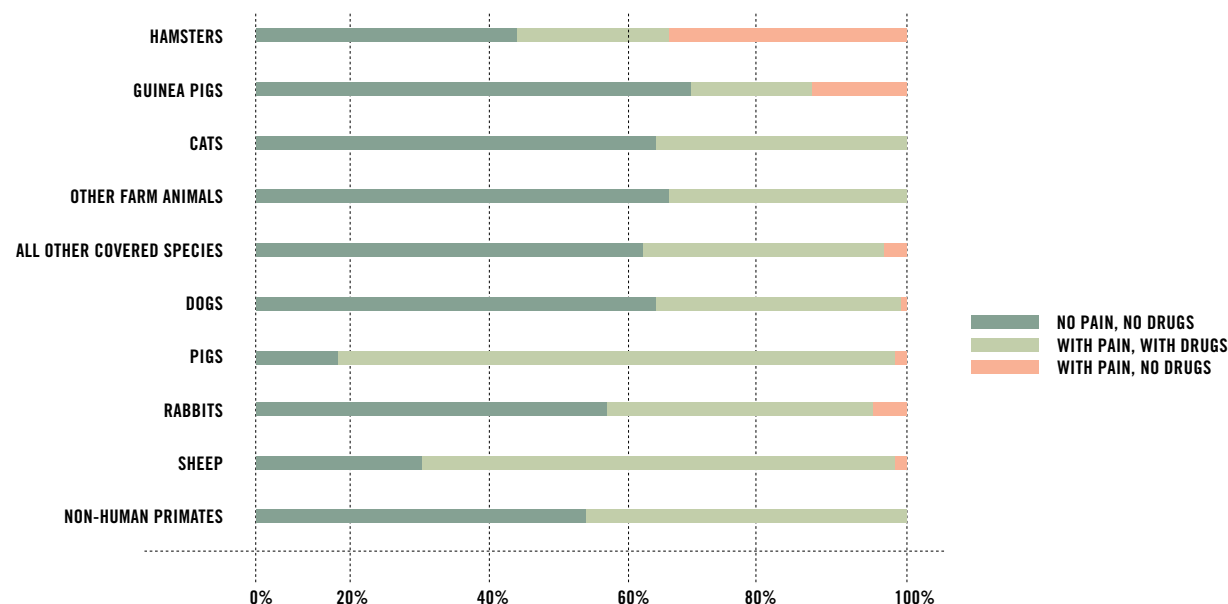


FIGURE LAB 6: Nationwide research animal-pain percentages.

(Source: USDA-APHIS Animal Care Information System Search Tool, 2014)



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receive any pain alleviation (**FIGURE LAB 6**). Hamsters (40,213) and guinea pigs (20,214) were the species most subjected to testing that involved pain with no pain alleviation (**FIGURE LAB 6**).⁵³ Of the total 6,394 animals used for testing in Oklahoma in 2014, 521 were used in tests in which the animals would have experienced pain but did not receive drugs. The 2014 report also showed that a majority (4,874) of Oklahoma laboratory animals did not experience pain during testing.⁵⁴ The remaining 999 animals were used in experiments that caused pain, but these animals received pain alleviation.

The total number of laboratory animals used in Oklahoma research increased 28 percent between 2013 (4,988) and 2014 (6,394). There was a decrease, however, in the number of animals used in experiments that experienced pain between 2013 and 2014. The reasons for the increase in laboratory-animal use could not be determined by the USDA reports and is a potential area of future study.

The New England Anti-Vivisection Society (NEAVS) states that laboratory animals are subjected to undue pain during testing as well as stress in daily life in the research facilities. The organization also argues that the

AWA does not adequately limit pain and suffering for lab animals because it makes the use of pain-relieving drugs discretionary, not mandatory.⁵⁵ The HSUS states that research facilities can take steps to reduce much of the suffering in labs by euthanizing animals before suffering becomes prolonged, training an animal to cooperate with a procedure, or choosing a less harmful way to perform an experiment.⁵⁶

Validity of Testing

The American Humane Association and other animal-welfare groups and scientists have stated that, along with the ethical concerns of causing laboratory animals pain and distress, there is also the concern that current animal research is not an effective model for human disease.^{57,58} The NEAVS stated that, though disease research is well-intentioned in its focus on preventing and curing diseases, “some biomedical researchers fail to recognize or appreciate that laboratory animals are not simply machines or black boxes that produce varieties of data. Once consideration of animals is reduced to this level, callousness and insensitivity to the animals’ pain, suffering, and basic needs can follow.”⁵⁹

In regards to Oklahoma’s pound seizure-law, some individuals contend research results can easily be confounded when using shelter cats and dogs that have unknown medical histories and that may potentially have been exposed to diseases. Because the backgrounds of the animals are unknown, impounded animals that appear non-aggressive may prove to be unpredictable and create danger for people working with them at the research facilities.⁵⁹ Taking animals from often crowded shelters and then placing them in confined, unknown research facilities causes stress on the animals.⁶⁰

The AAVS has noted that, when animals are sold by public pounds or Class B dealers to research facilities, there is a potential for abuse in the care for the animals. As noted earlier, the NIH has ceased funding research projects that use Class B animals due to the lack of reliability and trust in the sources of the animals. It is reasonable to infer, then, that the pound-seizure law could create an environment of public distrust in Oklahoma research institutions.

RECOMMENDATIONS

Although USDA reporting and regulations effectively document the use of laboratory animals in research and educational settings, these animals are relatively “unseen” by the public when compared to other groups in this study. In Oklahoma, laws such as the pound-seizure act and recent violations by research institutions are reasons for further study of the current needs for this group.

Encourage Oklahoma educational and research institutions to employ the Three R’s: Reduction, Refinement, and Replacement. Reduce the number of animals used; refine practices to reduce animal suffering and distress; and replace animal testing with alternative methods. Improvements in technology and the emerging of such innovative disciplines as bioinformatics can help reduce the need for animal subjects.

Educate the public about, and repeal, the pound-seizure law. The placing of stray or displaced animals into laboratory situations is stressful for the animal and dangerous for employees at labs. Pound seizure, moreover, can confound the results of testing and creates an environment of distrust between the public and the animal shelters.

Plan adequately for post-research humane retirement of lab animals. Not all animals that are used in research are euthanized. Policy regarding the care for retired laboratory animals is important to prevent the mistreatment of those animals. Oklahoma sanctuaries that care for retired lab animals should be encouraged to uphold national care standards.



CURIOSOSHUTTERSTOCK.COM

In September 2015, OU president David Boren announced that the baboon research and breeding program at Fort Reno Animal Park will close down in four years.



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GLOSSARY

ANTHROPOMORPHIZE: To attribute human form or personality to things not human (an animal, plant, material object, etc.).

ANALGESIC DRUGS: Any member of the group of drugs used to achieve analgesia, or relief from pain.

ANABOLIC STEROIDS: Synthetic variants of the male sex hormone testosterone.

ANIMAL BIRTH-CONTROL PROJECT: An Oklahoma City Animal Welfare Division program; offers free pet sterilization for Oklahoma City residents, funded by adoption fees collected by the Animal Welfare Division.

ANIMAL HUSBANDRY: The practice of breeding and caring for farm animals.

ANIMAL AND PLANT HEALTH INSPECTION SERVICE (APHIS): An agency of the United States Department of Agriculture responsible for protecting animal health, animal welfare, and plant health.

ANIMAL SANCTUARIES: Nonprofit organizations that house animals to live out the remainder of their lives after being used in scientific research and entertainment industries, or owned by private owners.

ANIMAL WELFARE INFORMATION CENTER (AWIC): Information center mandated by the Animal Welfare Act (AWA) to provide information for improved animal care and use in research, testing, and teaching.

APPROPRIATE MANAGEMENT LEVEL (AML): The maximum number of animals (wild horses or burros) sustainable on a yearlong basis.

BAG LIMITS: A law imposed on hunters and fishermen restricting the number of animals within a specific species or group of species they may kill and keep.

BEAR BAITING: A blood sport involving the tormenting (baiting) of bears.

BIOINFORMATICS: An interdisciplinary field that develops methods and software tools for understanding biological data.

BOND REFERENDUM: A process whereby the voters of a governmental unit are given the opportunity to approve or disapprove a proposed new issue of municipal securities.

BROILER: Domesticated fowl, bred and raised specifically for meat production.

BOX TRAP: A trap made of a wooden box supported by an often baited trigger, activated by the animal seeking the bait.

CANNED HUNT: Provides hunters with the ability to hunt a “wild,” exotic animal in an enclosed and heavily managed area.

CENTRAL FLYWAY OF NORTH AMERICA: A primary bird-migration route composed of the states of Montana, Wyoming, Colorado, New

Mexico, Texas, Oklahoma, Kansas, Nebraska, South Dakota, and North Dakota, and the Canadian provinces of Alberta, Saskatchewan and the Northwest Territories.

CHIMPANZEE HEALTH IMPROVEMENT, MAINTENANCE, AND PROTECTION ACT: A federally supported system to “provide for the lifetime care of chimpanzees that [sic] have been used, or were bred or purchased for use in research conducted or supported by the National Institutes of Health, the Food and Drug Administration, or other agencies of the Federal Government.”

COATIMUNDI: A mammal of the raccoon family; the South American coati.

COMMERCIAL PET BREEDERS ACT: Oklahoma regulation requiring non-governmental animal-rescue centers housing ten or more rescue dogs and/or cats to be licensed and inspected by the ODAFF, and amended to include non-municipal shelters; it is now called the Commercial Pet Breeders and Animal Shelter Licensing Act.

CORPORATE FARMING LAWS: State statutes or constitutional provisions that restrict the power of certain corporations to engage in farming or agriculture, or to acquire, purchase, or otherwise obtain land that is used or usable for agricultural production.

DECAPOD CRUSTACEANS: Any order of (decapoda) crustaceans such as shrimps, lobsters, and crabs.



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GLOSSARY

DOG & CAT STERILIZATION ACT:

An Oklahoma statute stipulating that no dog or cat may be released for adoption from a releasing agency unless the animal has been surgically spayed or neutered, or unless the adopting party signs an agreement to have the animal sterilized and deposits funds with the releasing agency to ensure that the adopted animal will be spayed or neutered. The amount of the deposit required shall be determined by each individual releasing agency. In no event shall the required deposit be less than \$10. The amount of the deposit required by the city animal-control shelter shall be as set forth in section 42-14 of the Oklahoma Statutes.

DOWNER: A weak, sick, or crippled animal not able to stand due to illness or injury.

DRAIZE EYE IRRITANCY TEST: A procedure in which a liquid, granule, or powder is placed in a rabbit's eye; named after an FDA scientist, John Draize, who developed the test.

ECOREGION: A large unit of land or water containing a geographically distinct assemblage of species, natural communities, and environmental conditions.

EXERTIONAL RHABDOMYOLYSIS: The breakdown of muscle from extreme physical exertion (sometimes called exercise-induced rhabdomyolysis).

FARMED *CERVIDAE*: Cervid (deer) species raised in captivity for the purpose of supplying the commercial hunting industry with livestock.

FARROWING CRATE: A penning system which is used for the sow and the piglets during feeding.

FUROSEMIDE: A diuretic (water pill) that treats fluid retention and high blood pressure.

GAIT: The pattern of movement of the limbs of animals (including humans, horses, dogs, etc.).

GERM THEORY: A theory stating that some diseases are caused by microorganisms that are too small to see without magnification, and that invade humans, animals, and other living hosts.

GESTATION CRATE: A penning system which is used for the sow and the piglets during pregnancy.

GMO (GENETICALLY MODIFIED ORGANISMS): Living organisms whose genetic material has been artificially manipulated in a laboratory through genetic engineering, or GE.

HOOFSTOCK: Ruminants and members of the horse family.

HUMANE COSMETICS ACT: A proposed bill which would prohibit testing cosmetics on animals. No cosmetic would be sold or transported if the final product or any component was developed or manufactured using animal testing.

HUMANE EDUCATION: Instilling the ethic of kindness toward animals.

KILL TRAP: A method of trapping that results in the animal's death.

KILL BUYERS: Individuals who purchase horses at auctions and then sell them to horse slaughter operations.

LAYER: A commercially viable egg-producing bird.

LESSER PRAIRIE CHICKEN: Ground-nesting birds that require large areas of native prairie; slightly smaller and paler than its near relative, the greater prairie chicken.

LIVE-RELEASE RATE: Rate at which a shelter is able to release animals for adoption without euthanasia.

MULE: The offspring of a male donkey (jack) and a female horse (mare).

NATIONAL ANTI-VIVISECTION SOCIETY: An educational organization whose goal is the elimination of animal use in product testing, education, and biomedical research.

POUND SEIZURE: The practice of "seizing" dogs and cats from shelters and pounds to give to research, testing, or educational facilities.

PUPPY MILL: A commercial farming operation in which purebred dogs are raised in large numbers.

RAPTOR FOOD: Feed for birds of prey, also known as raptors, which hunt and feed on other animals.

REHOMING: When an owner gives away his or her pet to be taken care of by someone else, or gives his/her animal to a rescue or sanctuary, which then finds a new home for the pet.

RENDERING: A process that converts waste animal tissue into stable, value-added materials. Rendering can refer to any processing of animal products (e.g., into purified fats like lard or tallow).

SORING: Involves use of chemicals or pressure to cause pain to a show horse's feet when they touch the ground, resulting in the horse picking its feet up quickly. It is an abusive and prohibited practice illegal under the U.S. Horse Protection Act of 1970.

SPOTLIGHTING: An illegal method of hunting using artificial light to capture the attention of animals.

STACKING: The abuse of drugs in which two or more different drugs are taken or administered to produce a desired effect.

SULFA DRUGS: Any member of a group of synthetic sulphonamide antibiotics used to treat and prevent bacterial infection.

TOXICOLOGY: The scientific study of poisons and their effect on living organisms.

USDA CLASS A LICENSES: Individuals who deal only in animals they breed and raise.

USDA CLASS B LICENSES: Brokers, operators of auction sales, and dealers who procure and sell animals, but do not breed the animals they sell.

USDA CLASS C LICENSES: For exhibitors who show or exhibit animals to the public.

VEGANISM: The practice of vegans, who do not use or consume animal products and by-products such as eggs, dairy products, honey, leather, fur, silk, wool, cosmetics, and soap.

VERTICAL INTEGRATION: Merger of companies at different stages of production and/or distribution in the same industry.

ZEBRA-FISH: A tropical freshwater fish belonging to the minnow family.

ZOONOSIS: Any disease or infection that can be transmitted from animals to humans.



APPENDIX: Interviewees

MELANIE ANDERSON, *Animal Protection Program Director, Summerlee Foundation*

CYNTHIA ARMSTRONG, *Oklahoma State Director, Humane Society of the United States*

BLAYNE ARTHUR, *Deputy Commissioner, Oklahoma Department of Agriculture, Food, and Forestry*

ELLEN AVERILL, *Director of Marketing and Community Relations, Tulsa Zoo*

KENNETH BARTELS, *Professor Emeritus, Oklahoma State University Center for Veterinary Health Sciences*

JANA BLACK, *Executive Director, Oklahoma Veterinary Medical Association*

CLARE BLAND, *Former Foundation Relations Manager, Search Dog Foundation*

TERI BOWERS, *Chief Operating Officer, Oklahoma Aquarium*

JOHN BOWMAN, *Animal Welfare Supervisor, City of Norman Animal Welfare Center Oversight Committee*

NED BRUHA, *Wildlife & Pest Management, The Skunk Whisperer*

BRYAN BUCHWALD, *Poultry, Egg, Organic Section Director, Oklahoma Department of Agriculture, Food, and Forestry*

HEATHER BUCKMASTER, *Executive Director, Oklahoma Beef Council*

DON BUTLER, *Director of Government Relations and Public Affairs, Smithfield Foods*

BILL CAIRE, *Director, Selman Living Lab, University of Central Oklahoma*

MICHELLE CALVO-LORENZO, *Former Assistant Professor, Oklahoma State University*

JOAN CASEY, *Retired, Program Director, Animal Assistance Foundation*

CHRISTY COUNTS, *Former President, Central Oklahoma Humane Society*

LANNY DAMPF, *Director, Broken Arrow Animal Shelter*

DAVID DECKARD, *Operations Manager, Oklahoma Department of Wildlife Conservation*

MARGO DEMELLO, *Program Director for Human-Animal Studies, Animals & Society Institute*

ALAN DENNIS, *Former Graduate Assistant, University of Oklahoma*

KELLI DODSON, *Service-Dog Owner*

APRIL DOSHIER, *Executive Director, Food and Shelter*

LORA DUNN, *Staff Attorney, Animal Legal Defense Fund Criminal Justice Program*

CATHERINE ENGLISH, *Retired, Superintendent, City of Oklahoma City Animal Welfare Division*

PATTY FINCH, *Former Executive Director of Global Federation of Animals Sanctuaries, Current Co-CEO of SpayFIRST!*

JERRY FITCH, *Undergraduate Teaching Coordinator, Oklahoma State University*

JUDY FOSTER, *Child Welfare Services District Director, Oklahoma Department of Human Services*

DAVID GANZEL, *District Veterinary Medical Specialist, United States Department of Agriculture*

JONATHAN GARY, *Shelter Operations Supervisor, Oklahoma City Animal Welfare Division*

AMY GOODIN, *OU POLL Director, University of Oklahoma Public Opinion Learning Laboratory*

ALICIA GORCZYCA-SOUTHERLAND, *Staff Veterinarian, Oklahoma Department of Agriculture, Food, and Forestry*

TEMPLE GRANDIN, *Professor of Livestock Behavior and Welfare, Colorado State University*

KEVIN GRANT, *State Director of Wildlife Services, Oklahoma Department of Agriculture, Food, and Forestry*

LUISA GRANT, *Senior Coordinator, Volunteer Management, National Wildlife Federation*

CHE GREEN, *Executive Director, Faunalytics*

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APPENDIX: Stakeholders and Expert Interviewees

TEENA GUNTER, *AgPDES Director & ODAFF General Counsel, Oklahoma Department of Agriculture, Food, and Forestry*

ANDREW GUNTHER, *Program Director, Animal Welfare Approved*

BILL HALE, *Assistant Chief of Law Enforcement, Oklahoma Department of Wildlife Conservation*

ROD HALL, *State Veterinarian, Oklahoma Department of Agriculture, Food, and Forestry*

ROGER HASTON, *Executive Director, Animal Assistance Foundation*

HAROLD HERZOG, *Professor of Psychology, Western Carolina University*

KATHRYN HOLCOMB, *Post-doctoral Scholar, University of California, Davis*

RUSS HORTON, *Wildlife Research Supervisor, Oklahoma Department of Wildlife Conservation*

MARK HOWERY, *Wildlife Diversity Biologist, Oklahoma Department of Wildlife Conservation*

WIL HUNDL, *Oklahoma State Statistician, United States Department of Agriculture*

BOB INGERSOLL, *Evolutionary Biologist, appears in Project Nim*

MARY IPPOLITI-SMITH, *Executive Leadership Team, Maddie's Fund*

JENNIFER JAMES, *Former staff, Association of Central Oklahoma Governments*

KATHIE JENNI, *Professor of Philosophy, University of Redlands*

JOHN JOHNSON, *Executive Director, Association of Central Oklahoma Governments*

DAVID JONES, *Dairy Cattle Center Herd Manager, Oklahoma State University*

DENA JONES, *Farm Animal Program Director, Animal Welfare Institute*

STEPHEN KELLERT, *Tweedy Ordway Professor Emeritus of Social Ecology and Senior Research Scholar, Yale University School of Forestry and Environmental Studies*

CATHY KIRKPATRICK, *Executive Director, Oklahoma State Board of Veterinary Medical Examiners*

RONDI LARGE, *Director, WildCare Foundation*

JEAN LETCHER, *Animal Welfare Manager, City of Tulsa*

ROY LEE LINDSEY, *Executive Director, Oklahoma Pork Council*

BARBARA LEWIS, *President and CEO, A New Leash on Life*

CATHY LISS, *President, Animal Welfare Institute*

NIKKI LOFFTUS, *Oklahoma Statistical Analysis Center Statistical Research Specialist, Oklahoma State Bureau of Investigation*

TRACEY LYALL, *Executive Director, Domestic Violence Intervention Services of Tulsa*

AMANDA MARCOTT-THOTTUNKAL, *Program Representative, Oklahoma Department of Commerce*

VICKI MASON, *Shelter Director, Women in Safe Home (W.I.S.H.)*

JOHN McGLONE, *Animal and Food Sciences Professor, Texas Tech University*

STEVE McGUFFIN, *Director of Philanthropy, the Nature Conservancy*

PAM McKISSICK, *Author and Radio Personality, Public Radio Exchange*

JENNIFER McLAUGHLIN, *Director of Professional Development, Oklahoma Coalition Against Domestic Violence and Sexual Assault*

DAVE McRUER, *Director of Veterinary Services, Wildlife Center of Virginia*

SONJA MEADOWS, *Executive Director, Animals' Angels*

LORRIE MONTEIRO, *Curator, the American Pigeon Museum and Library*

JEN MOOK, *Former volunteer, Oklahoma City Animal Shelter*

CHRISTINE MORRISSEY, *Program Manager, Global Animal Partnership*

RICH MUSSELMAN, *Field Operations Manager, American Humane Association*

CIARA MYERS, *Communications Coordinator, Certified Humane*

EMMA NIEWALD, *Independent PR Consultant, Formally Certified Humane*

TYLER NORVELL, *Lobbying Representative, The Poultry Federation*

BAILEY NORWOOD, *Agricultural Economist, Professor, Oklahoma State University*

JOHN OTTO, *DVM, Friends for Folks*

D. J. PARRISH, *Retired Agricultural Environmental Management Services, Oklahoma Department of Agriculture, Food, and Forestry*

RENEE PHILIPP, *Statistical Analyst, Oklahoma Department of Corrections*

MARY PHILLIPS, *Director, Garden Wildlife, National Wildlife Federation*

JON PRUITT, *Meat Inspection Compliance Supervisor (retired), Oklahoma Department of Agriculture, Food, and Forestry*

TERESA RANDALL, *Director of Education, Oklahoma City Zoo and Botanical Gardens*

MARY LOU RANDOUR, *Animal Cruelty Programs and Training Senior Advisor, Animal Welfare Institute*

JIM REESE, *Secretary and Commissioner of Agriculture, Oklahoma Department of Agriculture, Food, and Forestry*

JERI RIVERA, *Executive Director, City Management Association of Oklahoma*

JUSTIN ROACH, *Staff Veterinarian, Oklahoma Department of Agriculture, Food, and Forestry*

NELS RODEFELD, *Chief of Information and Education Division, Oklahoma Department of Wildlife Conservation*

JIM RUTLEDGE, *Professor, Oklahoma 4-H Program, Oklahoma State University*

JEAN SANDER, *Dean and Veterinary Pathobiology Professor, Center for Veterinary Health Sciences at Oklahoma State University*

KIM SCHLITTLER, *Founder and Director, Best Friends of Pets*

JEREMY SEIGER, *Agricultural Environmental Management Services Director, Oklahoma Department of Agriculture, Food, and Forestry*

MARCIA SMITH, *Executive Director, Oklahoma Coalition Against Domestic Violence and Sexual Assault*

JEANNE SNIDER, *Assistant City Attorney, City of Norman*

WORTH SPARKMAN, *Manager of Public Relations, Tyson Foods*

JACK STAATS, *State Program Administrator, Oklahoma Future Farmers of America*

RUTH STEINBERGER, *Co-CEO and Founder, SpayFIRST!*

DAN STRAUGHAN, *Executive Director, Homeless Alliance*

CAROLYN STULL, *Lecturer and Specialist in Cooperative Extension of Veterinary Medicine, University of California, Davis*

KATHLEEN SUMMERS, *Director of Outreach and Research, Puppy Mills Campaign, Humane Society of the United States*

SHELLY THOMPSON, *Senior Grants Manager, Maddie's Fund*

BERNARD UNTI, *Senior Policy Advisor, Humane Society of the United States*

KATIE WADE-MATTHEWS, *Legal Instruments Examiner, Migratory Birds, United States Fish and Wildlife Service*

BRIAN WARREN, *Recruiter, Braum's*

BOB WALDROP, *President, Oklahoma Food Cooperative*

RORY AND PATRICE WHITTLE, *Owner and Producers, Double R Farms*

ROSE WILSON, *Supervisor, Lawton Animal Control*

DALE YERIGAN, *General Manger, International Pro Rodeo Association*



APPENDIX: *Recent History of Horse Slaughter*

NOVEMBER 1998	California voters approved proposition prohibiting the slaughter of horses and the sale of horse meat for human consumption, as well as the transportation of horses out of California for slaughter in other states or countries. (ballotpedia.org/wiki/index.php/California_Proposition_6,_Prohibition_on_Slaughter_of_Horses_for_Human_Consumption_%281998%29)
JUNE-NOVEMBER 2005	Passage of the Sweeney amendment to the 2005-20 appropriations bill prohibiting the use of federal funding to pay salaries and expenses of personnel to inspect horse-slaughter facilities, leading to the closure of horse slaughterhouses in the U.S. (thomas.loc.gov/cgi-bin/bdquery/z?d109:HZ00236 .)
FEBRUARY 2006	The USDA issued regulation (CFR 352.19) allowing remaining slaughter facilities to circumvent the horse-inspection funding ban by paying for their own inspections.
SEPTEMBER 2006	The American Horse Slaughter Prevention Act banning the sale and transport of American horses for human consumption passed the House of Representatives, but the Senate bill died in committee. (www.govtrack.us/congress/bills/109/hr503)
JANUARY 2007	The American Horse Slaughter Prevention Act was reintroduced in the House of Representatives, referred to the House Agriculture Committee, but was never moved to a full vote. (www.govtrack.us/congress/bills/110/hr503)
JANUARY 2007	Senate bill 311, the Senate version of the American Horse Slaughter Prevention Act, was introduced but never reached a full vote. (www.govtrack.us/congress/bills/110/s311)
JANUARY-MARCH 2007	U.S. Court of Appeals upheld Chapter 149 of the Texas Agriculture Code that banned the sale, transfer, or possession of horse meat for human consumption. Although the statute had been in effect since 1949, it had not been enforced. (www.statutes.legis.state.tx.us/Docs/AG/htm/AG.149.htm)
MARCH 2007	The Dallas Crown horse-slaughter plant in Kaufmann, Texas, shut down operations after the mayor and residents fought to close the plant, citing a financial drain on the municipality and horrendous conditions. (www.nashvillescene.com/pitw/archives/2010/04/09/former-mayor-horse-slaughterhouses-a-drain-on-taypayers-never-mind-the-ditches-of-blood)
MARCH 2007	U.S. District Court ruled that it was illegal for horse-slaughter facilities to pay the USDA for their own inspections, closing down the last horse-slaughter plant, Cavel International, in DeKalb, Illinois. Cavel International appealed the decision, arguing for an injunction on July 20 and was allowed to continue operations while the case was considered. (www.thehorse.com/articles/19295/slaughter-cavel-preparing-to-resume-operations)
MAY 2007	Governor of Illinois signed HB 171 into law, banning the slaughter of horses for human consumption in Illinois. (www.ilga.gov/legislation/BillStatus.asp?DocNum=1711&GAID=9&DocTypeID=HB&LegID=30536&SessionID=51)
SEPTEMBER 2007	U.S. Court of Appeals ruled the Illinois ban on horse slaughter was constitutional, closing the last operational horse slaughterhouse in the U.S. (www.forbes.com/sites/vickeryeckhoff/2013/11/06/grand-opening-of-horse-slaughter-plants-foiled-again/3/)

JANUARY 2009	Prevention of Equine Cruelty Act of 20 (HR 503/S. 727) introduced into the 111th Congress, making it a crime to knowingly possess, ship, transport, sell, deliver, or receive any horse, carcass, or horse flesh for human consumption. There was no further action taken on the bill.
JUNE 2011	Government Accountability Office released a report on the unintended consequences of ending horse slaughter in 2007. The report noted a rise in horse neglect and abandoned horses since 2007.
JUNE 2011	The American Horse Slaughter Protection Act (H.R. 2966/S. 1176) was reintroduced in Congress, to amend the Horse Protection Act (P.L. 91-540) to prohibit shipping, transporting, processing, purchasing, selling, or donating horses and other equines to be slaughtered for human consumption. No further action was taken on the bill. (www.govtrack.us/congress/bills/112/s1176)
NOVEMBER 2011	For the first time since 2006, Congress passed an agriculture appropriations bill (2012) that did not include language that prohibited funding for horse-meat inspections by the USDA. (www.horsechannel.com/horse-news/2011/11/18/horse-slaughter.aspx)
SEPTEMBER 2012	New Jersey governor signed a bill (A2023) banning horse slaughter for human consumption in New Jersey. (www.njleg.state.nj.us/2012/2013/A2500/2023_11.HTM)
FEBRUARY 2013	Valley Meats sued the USDA for intentionally delaying the process of its approval for opening a horse-slaughter facility in Roswell, New Mexico.
MARCH 2013	The Safeguard American Food Exports Act (H.R. 1094/S.541), to prohibit the sale of equines and equine parts in interstate or foreign markets for human consumption. The House bill was referred to the Committee on Energy and Commerce and the Committee on Agriculture. The Senate bill was referred to the Committee on Health, Education, Labor, and Pensions. (http://thomas.loc.gov/cgi-bin/bdquery/z?d113:HR01094:@@X;thomas.loc.gov/cgi-bin/bdquery/z?d113:s.0541 .)
MARCH 2013	Oklahoma lifted its 50-year ban on horse slaughter when the governor signed a new law (House Bill 1999) allowing facilities to process and export horse meat. (bigstory.ap.org/article/okla-governor-signs-horse-slaughter-legislation)
APRIL 2013	The budget proposal for 2014 released by the White House once again includes language prohibiting federal funding for inspections of horse-slaughter facilities by USDA personnel. (www.horsechannel.com/horse-news/2013/04/12-horse-slaughter-ban.aspx)
JUNE 2013	Valley Meats became the first horse-slaughter processing plant approved by the USDA since 2007.
JANUARY 2014	The ban on funding for USDA horse-slaughter inspections was reinstated under the 2014 federal budget. (www.horsechannel.com/horse-news/2014/01/18-horse-slaughter-ban.aspx)
JUNE 2014	Representative Markwayne Mullin (R-OK) introduced an amendment to the 2014 Agriculture Appropriations bill that would eliminate (or weaken) the ban on USDA funding for horse-slaughter facility inspections. (www.capwiz.com/aspca/issues/alert/?alertid=63249236&type=CO&from=homepagefeature061114)
APRIL 2015	The Safeguard American Food Exports Act of 2015 was introduced to deem equine products unsafe for food additives or animal food and prohibit transportation of products for foreign consumption. Referred to Subcommittee on Livestock and Foreign Agriculture. (https://www.congress.gov/bill/114th-congress/house-bill/1942)



APPENDIX: Disaster Animal Response

DISASTER ANIMAL RESPONSE

Specially trained animal-rescue personnel are important in any large-scale rescue operation when animals are involved. These animal-rescue situations—natural disasters, hoarding, and cruelty cases—often occur with little notice. Local law enforcement and emergency management organizations can easily become overwhelmed when providing assistance to people and animals.

Tornadoes, fires, hurricanes, and floods can cause widespread damage to property, people, and animals. These natural disasters affect all

types of animals: companion animals, livestock, wildlife, and captive exotics. Problems during disasters include animal owners not being able to take pets into public shelters, being unwilling to evacuate areas without their pets, or suffering emotional distress when animals die or suffer. Other concerns for management personnel include zoonosis outbreaks and public-safety issues as animals run loose.

Emergency Training

The Federal Emergency Management Agency (FEMA)'s Community Emergency Response Team (CERT) program provides education

and training for people in disaster preparedness and basic disaster response skills such as light search and rescue, team organization, and disaster medical operations. Recognizing that major disasters can prevent first responders and emergency services from meeting the immediate needs of the public, CERT programs are designed to train volunteers so that they may effectively and safely assist in these situations. CERT training provides citizens with basic lifesaving and decision-making skills and rescuer safety. CERT-trained teams are an extension of traditional first-responder services and offer help until other professional services arrive.

There are twenty-three CERT programs in Oklahoma, which meet and train on a regular schedule. First responders who have already completed a CERT Train-the-Trainer course teach the CERT course for community groups.

FEMA's CERT program office has produced two supplemental training modules, Animal Response I and II, designed to build on the training CERT members receive in the basic training course. The training modules address the needs of pets, service animals, "for-profit" livestock, wildlife, exotic animals, and non-commercial livestock such as horses. The courses cover topics such as responding to animal owners, recognizing specific animal behaviors, and responding to animal issues.

As part of its Emergency Management Institute, FEMA also offers independent-study courses, such as *Animals in Disasters*, regard-

ing awareness, preparedness, and community planning. In its training materials FEMA states, "While the care of animals in disasters should never take precedence over the care of people, providing care for animals may facilitate the personal safety and care of a large segment of the human population."

Large-scale emergency-response efforts typically follow FEMA's National Incident Management System (NIMS), designed to provide a common management approach for all levels of government, nongovernmental agencies, and the private sector during emergency and disaster incidents. Adoption of the NIMS approach is meant to increase effective communication and efficient coordination across multiple jurisdictions, levels of government, and emergency responders.

A component of NIMS, the Incident Command System (ICS), was developed to provide a common organizational structure facilitating emergency-response activities in these major areas: command, operations, planning, and logistics; finance and administration; and intelligence and investigations. The system provides a scalable organization, hierarchy, and operational procedures within which organizations may effectively work together and includes designation of specific roles and responsibilities.

Incident management typically starts at local levels; however, larger-scale incidents require the involvement of multiple jurisdictions and levels of government. In Oklahoma, coordination of emer-

gency response follows the ICS, with jurisdiction typically starting at the local level and county, state, and federal agencies becoming involved depending on the nature and scale of the disaster. There are emergency managers within many organizations, including municipal, county, state, tribal, military, colleges and universities, private businesses, and nonprofits. The Oklahoma Department of Agriculture, Food, and Forestry (ODAFF) is the primary state agency to respond after major natural disasters affecting animals in Oklahoma.

Basic Animal Rescue Training (BART) is a nonprofit organization operating in Minnesota that trains first responders all over the country in restraint, handling, assessment, and first aid for animals encountered in emergency situations. Departments participating in the trainings are given medical kits and restraining tools covered in the courses. The Kirkpatrick Foundation has helped fund several BART trainings in Oklahoma, including events in Oklahoma City, Norman, Newcastle, and Shawnee.

The Oklahoma Medical Reserve Corps (OKMRC) is an organization that brings together practicing and retired health-care professionals to respond to and supplement existing first-responder emergency systems. Together, the OKMRC and the ODAFF initiated the development of the County Animal Response Team (CART) program to provide infrastructure for organized animal care during emergencies. Information on the OKMRC Web site states that

team members can include emergency management, first responders, health departments, animal-control organizations, police, fire, animal-sheltering groups, specialty groups, and individuals, and that no experience is necessary since training will be provided at no charge to participants.

Dr. Alicia Gorczyca-Southerland, ODAFF staff veterinarian, reports that ODAFF is assisting OKMRC with the development of County Animal Response Teams (CART). CARTs are directed by a local emergency manager, and OKMRC and ODAFF are promoting the CART program to veterinarians throughout the state. The OKMRC provides yearly workshops for animal-response volunteers on topics, such as emergency sheltering and disaster medicine for veterinarians.

May 2013 Tornadoes Response

Unfortunately, emergency managers and first responders have had plenty of practice in responding to major disasters in the state, including tornadoes, wildfires, winter storms, and the 1995 bombing of the Alfred P. Murrah Federal Building. After the May 20, 2013, tornado in Moore, Oklahoma, first responders immediately deployed, assisting and rescuing survivors. Within hours of the disaster, hundreds of rescuers were in Moore, including the Oklahoma All-Hazards Incident Management Team, Oklahoma Task Force 1, and other assets of the Regional Response System. Thousands of volunteers from around the country came to Moore in the days following



AMERICAN HUMANE ASSOCIATION

First responders in Moore, Oklahoma, after the 2013 tornadoes.



APPENDIX: Disaster Animal Response

the tornado to help with cleanup. Moore city manager Steve Eddy stated that it was difficult to control the community response, traffic congestion, and general chaos created by the number of organizations and people self-deploying.

The tornadoes in May 2013 damaged a number of Oklahoma communities, injuring and killing humans, pets, livestock, horses, and other animals in the area. Many people affected by the storms searched frantically for lost pets. Stoppag measures, such as a triage center for pets at the Home Depot in Moore, were undertaken to hold dogs and cats found running at large by rescuers until more permanent facilities could be planned and constructed.

Dogs and cats were housed at the Animal Resource Center and Cleveland County Fairgrounds, where veterinarians and volunteers photographed and cataloged the animals, gave each one a USDA identification number, and provided care until the animals could be reunited with their owners. Private and corporate donors provided large amounts of pet supplies, and several facilities offered free veterinary and boarding services. The Oklahoma Veterinary Medical Association served as a clearinghouse for many private donations and corporate veterinary-supply houses.

One week after the Moore tornado, Dr. Rod Hall, state veterinarian, reported that of the 269 animals treated at the Home Depot triage center 176 were relocated to three rescue shelters and 148 were reunited with their owners. More than

150 large animals were killed by the tornadoes, including cattle, goats, pigs, and eighty-nine horses. Many more suffered from injuries.

The McClain County Animal Response Team (McCART) was one of the first animal groups activated to begin pet-related responses, and the group was responsible for setting up the triage center at the Home Depot. McCART is a group of trained volunteers and animal professionals—including veterinarians, veterinarian technicians, and animal-control officers—that respond to disasters and animal emergencies in McClain County, Oklahoma. McCART falls under the county's Office of Emergency Management.

Dr. Kayla Wells, a local veterinarian and McCART volunteer, states that the animal-response team “gives us a systematic approach to addressing needs once an incident has occurred.” Ed Cravens, director of the McClain County Office of Emergency Management noted that “our CART was first formed in 2007, and it has taken a lot of time, research, and training to get it right. We had lots of lessons learned in this event and will be even more effective in the future.”

The ODAFF also assisted due to the number of animals involved. The Oklahoma Medical Reserve Corps (OKMRC) Animal Response Team also provided support at the triage center upon request of the ODAFF.²⁶ The USDA Emergency Support Function 11 worked with the ODAFF to provide support for animal search and rescue, triage, sheltering, animalcarcass management, and disaster food assistance.

Animal-welfare organizations such as the Humane Society of the United States (HSUS) and American Humane Association (AHA) have animal-rescue teams that will deploy when requested by local and state emergency managers. The HSUS maintains a database of trained volunteers across the country who are available to lend assistance in emergency situations and natural disasters. Volunteers in HSUS's Animal Rescue Team program are required to complete free online courses on the ICS system provided by FEMA.

The AHA's Red Star Animal Emergency Services, celebrating its 100th anniversary in 2016, is “a fleet of emergency response vehicles customized to help animals in disasters, specialized rescue equipment designed specifically for animal search and rescue, and a force of Emergency Services Volunteers located across the country” that deploy after receiving a written request from authorities at the scene. Red Star Animal Emergency volunteers complete a two-day training course in basic animal emergency services and complete the ICS online courses. The AHA was activated in 2013 to assist with rescue efforts in Moore after receiving a request from Dr. Rod Hall.

The American Society for the Prevention of Cruelty to Animals (ASPCA) dispatched a disaster-response team to Oklahoma at the request of the Central Oklahoma Humane Society in Oklahoma City to assist with shelter operations. The ASPCA enlisted help from other agencies to assist with the rescue

efforts in Oklahoma, including the International Fund for Animal Welfare (IFAW), Code 3 Associates animal-disaster response in Colorado, and RedRover of California.

Companion animals and livestock were not the only victims of the tornadoes. The International Fund for Animal Welfare's team reached out to the WildCare Foundation in Noble to help care for the hundreds of injured wild animals. WildCare took in 840 wild animals during the months following the tornadoes; half of them were estimated to be affected as a result of the severe storms in May. One of the IFAW volunteers at WildCare later wrote, “I cannot express enough the raw and genuine humanity and generosity I have witnessed the people at WildCare provide to every animal brought through their doors. From the tiniest mouse to the fiercest bobcat, every animal is treated with respect, dignity, and unyielding compassion.”

Dr. Gorczyca-Southerland, ODAFF staff veterinarian, states, “Following the disasters last May, there is now more than ever interest not only in the veterinary community, but also in private citizens to become animal-response volunteers and develop teams to provide relief efforts to both small and large animals.”

The tornadoes of May 2013 demonstrated the strengths and weaknesses of the state's ability to respond to animals during emergencies and has led to greater planning.



An American Humane Association Red Star volunteer in Moore, Oklahoma.

THE OKLAHOMA DEPARTMENT OF AGRICULTURE, FOOD, AND FORESTRY STATEMENT ON EMERGENCY PLANNING FOR ANIMALS: DECEMBER 23, 2015

Several things have changed since the May 2013 tornadoes in regards to ODAFF's response. Following an internal After Action Review, several key areas were addressed to improve our response capabilities. These areas are as follows: donation management, animal-shelter management, the development of animal-response teams, and increasing training.

Donation management was a challenge following the May 2013 tornado response, as with any response. To help combat this, ODAFF has an understanding with the Oklahoma Veterinary Medical Association to have financial donations earmarked for animal relief directed through its office. All other donations will be sent to a central location and sorted and distributed based on need. Dr. Gorczyca has also worked with the Pet Food Pantry of Oklahoma City to assist with pet-food donations. It has become credentialed through the OKMRC and is developing plans to manage pet-food donations

for disasters in the metro area. It has partnered with Oklahoma City Animal Welfare to be a part of the Animal Disaster Brigade. Plans are still being developed to house and manage large animal donations.

Animal-shelter management was addressed in several different ways. Question arose concerning the length of time rescued or found animals were kept; the appropriate time frame for an adoption event; and the ownership of the animals. The Care and Disposition of Disaster Animals Act, HB 1403, was developed to give the state decision-making authority in regards to veterinary care for disaster animals and temporary animal shelters when ODAFF is requested to assist with animal-sheltering needs. This will provide the framework to answer these questions and provide consistency in managing incidents.

Another issue being addressed was the lack of consistency and communication between the multiple animal shelters that were operational during the tornado response. To



APPENDIX

alleviate confusion, consistent and standardized animal-sheltering forms and identification systems are being developed. Dr. Gorczyca is working with the McClain Animal Response Team and the McClain County Emergency Managers in developing forms based on NARSC documents that will be shared with animal-response teams, animal partners, and emergency managers as well as made available on ODAFF's Web page. Communication problems are being addressed by reducing the number of temporary animal shelters that are operational following an event, and if not applicable due to the scope of an incident, having an ODAFF liaison present to facilitate requests or needs the shelter may have.

ODAFF has also developed a Memorandum of Understanding with the American Humane Association (AHA) to provide necessary assistance and resources quickly. AHA is a National Animal Rescue and Sheltering Coalition member and can call on other NARSC members to assist ODAFF with animal-relief efforts if/when it is requested to do so. ODAFF is also working with the OSU Center for Veterinary Health Science to use its animal-response team to improve triaging capabilities following a disaster.

Several animal-response teams have developed in the wake of the 2013 tornadoes. Currently, Oklahoma has an animal-response team in the following counties: McClain, Payne, and Tulsa. Leflore, Haskell, and Sequoyah Counties have a combined team. Kay and Garfield Counties have teams in various stages of development. Lastly, the Oklahoma Large Animal Response Team was developed to address the critical needs of large animals, including horses and livestock. Dr. Gorczyca has spoken with emergency managers at annual conferences to promote the development of animal-response teams and to stress the importance of having plans in place that address the needs of animals following any disaster.

To improve ODAFF's response capabilities, exercises are being developed and implemented and training opportunities are being offered to strengthen incident management teams. A few examples of exercises that have been held since May 2013 include the following:

- A companion-animal sheltering tabletop exercise was held April 2015. This exercise had great participation from key partners involved during the May 2013 tornado response.
- A functional exercise involving transportation/evacuation of wildlife was held in June 2015 at Wild Care rehabilitation center in Nobel, Oklahoma.
- Dr. Gorczyca is working with the McClain Animal Response Team to develop a functional exercise to address companion-animal shelter intake procedures. This exercise is being planned for March 2016.

In conclusion, ODAFF is continuing to make strides in improving our response capabilities to address animals in need following a disaster by continuing to develop relationships with key partners and agencies that respond to animal incidents, addressing gaps with training and exercise protocols, and finally creating awareness of including animals into emergency plans and promoting animal-response teams across the state.



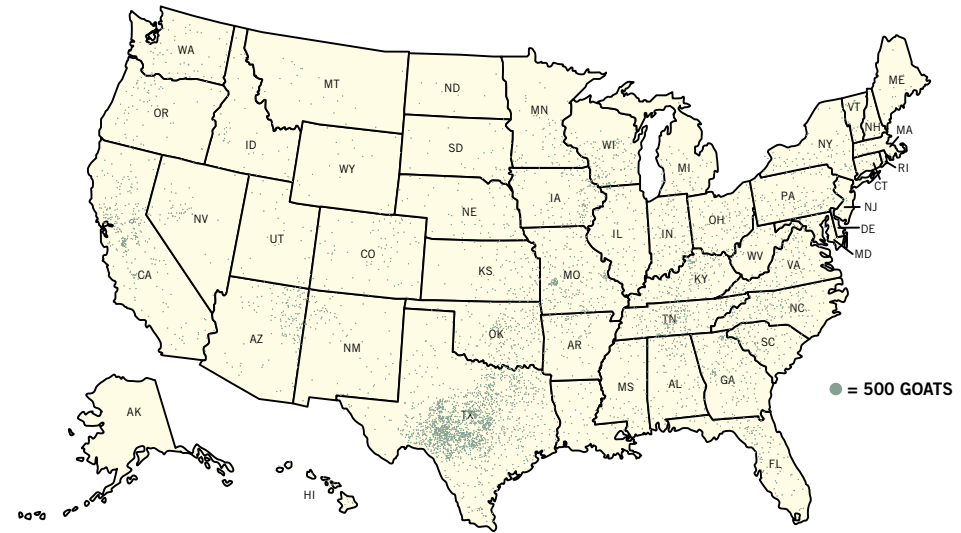
Animal Legal Defense Fund State Rankings

SELECT PROVISIONS	1. ILLINOIS	2. OREGON	3. MAINE	4. CALIFORNIA	5. MICHIGAN	17. OKLAHOMA
<i>Felony penalties available: Cruelty (C), Neglect (N), Fighting (F), Abandonment (A), Sexual Assault (S)</i>	C,N,F,A,S	C,F,N	C,N,F,A	C,N,F	C,N,F,A,S	C,N,F,S
<i>Adequate definitions / standards of basic care</i>	✓	✓	✓		✓	
<i>Full range of statutory protections (cruelty, neglect, abandonment, sexual assault, fighting)</i>	✓	✓	✓	✓	✓	✓
<i>Increased penalties for repeat abusers and/or animal hoarders</i>	✓	✓	✓		✓	
<i>Increased penalties when abuse is committed in the presence of a minor</i>	✓	✓				
<i>Courts may order forfeiture of abused animals</i>	✓	✓	✓	✓	✓	✓
<i>Mandatory forfeiture of animals upon conviction</i>				✓		✓
<i>Mandatory reporting of suspected cruelty by veterinarians and/or select non-animal-related agencies/professionals</i>	✓	✓	✓	✓		✓
<i>Police officers have an affirmative duty to enforce animal-protection laws</i>		✓	✓	✓	✓	
<i>Humane officers have broad law-enforcement authority</i>		✓		✓	✓	
<i>Broad measures to mitigate and recover costs of care for abused pets seized by animal-welfare agencies; court may restrict ownership of animals after a conviction</i>	✓	✓	✓	✓	✓	✓
<i>Court may restrict ownership of animals after a conviction</i>	✓	✓	✓	✓	✓	
<i>Mental-health evaluations and/or counseling for offender</i>	✓	✓	✓	✓	✓	
<i>Animals may be included in domestic-violence protective orders</i>	✓	✓	✓	✓		✓

APPENDIX FIGURE 2: The Animal Legal Defense Fund's 2015 U.S. animal-protection state-laws rankings: select provisions (2015) for the top 5 states and Oklahoma (ranked 17 in 2015, up from 33 in 2014).

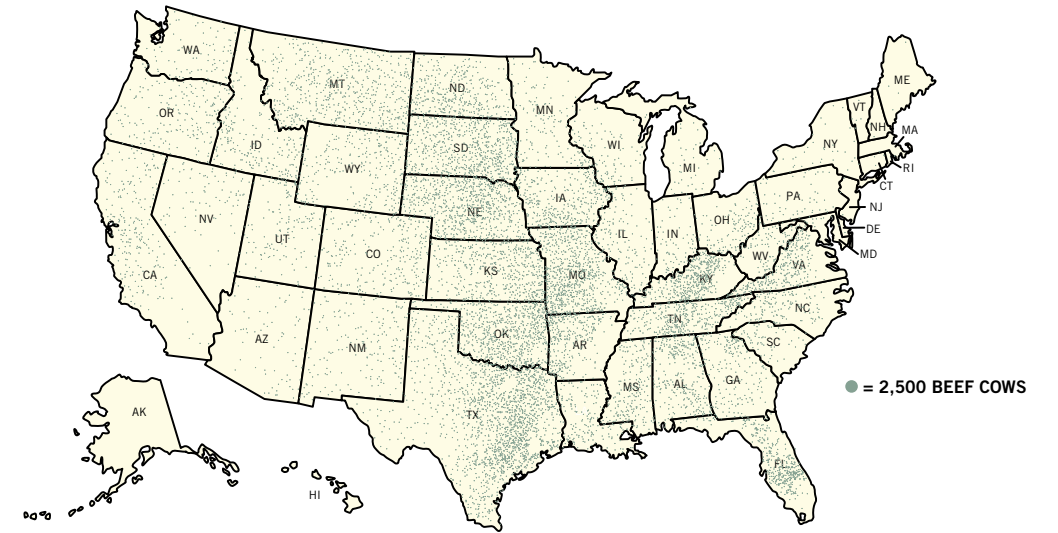


APPENDIX: Selected Farm Animal Inventory



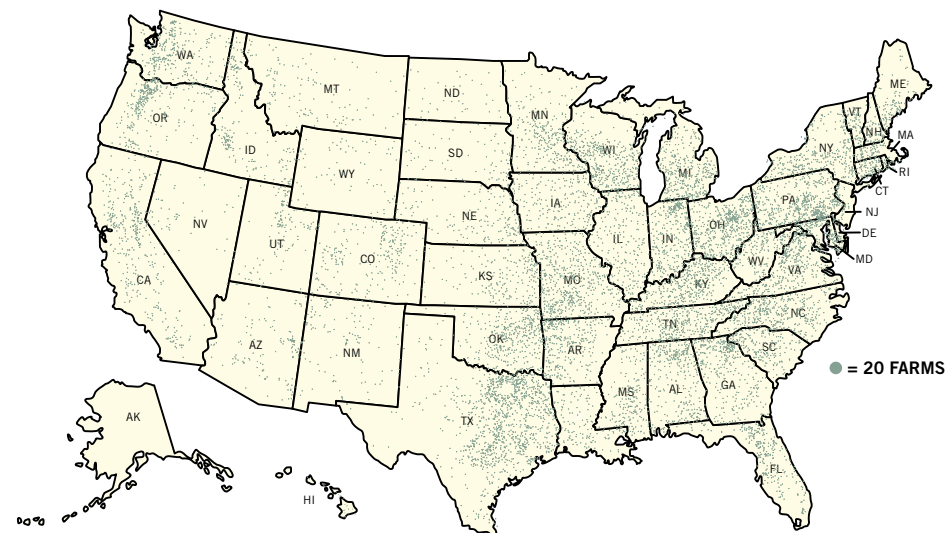
ALL GOATS INVENTORY: 2012 Census of Agriculture.

Source: http://www.agcensus.usda.gov/Publications/2012/Online_Resources/Ag_Atlas_Maps/Livestock_and_Animals/



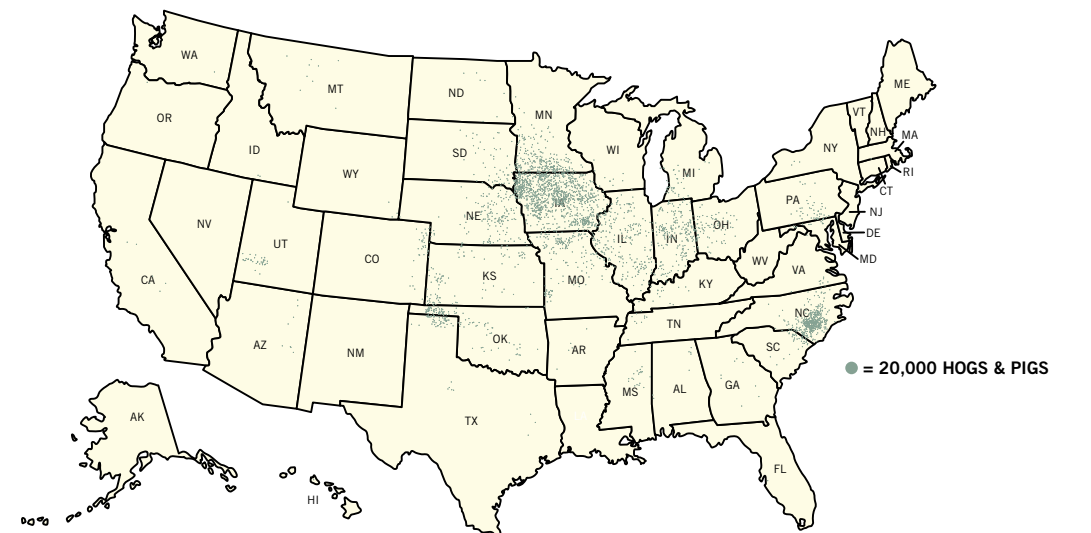
BEEF COWS INVENTORY: 2012 Census of Agriculture.

Source: http://www.agcensus.usda.gov/Publications/2012/Online_Resources/Ag_Atlas_Maps/Livestock_and_Animals/



ALL POULTRY INVENTORY on December 31, 2012 Census of Agriculture.

Source: http://www.agcensus.usda.gov/Publications/2012/Online_Resources/Ag_Atlas_Maps/Livestock_and_Animals/



HOGS & PIGS Inventory: 2012 Census of Agriculture.

Source: http://www.agcensus.usda.gov/Publications/2012/Online_Resources/Ag_Atlas_Maps/Livestock_and_Animals/

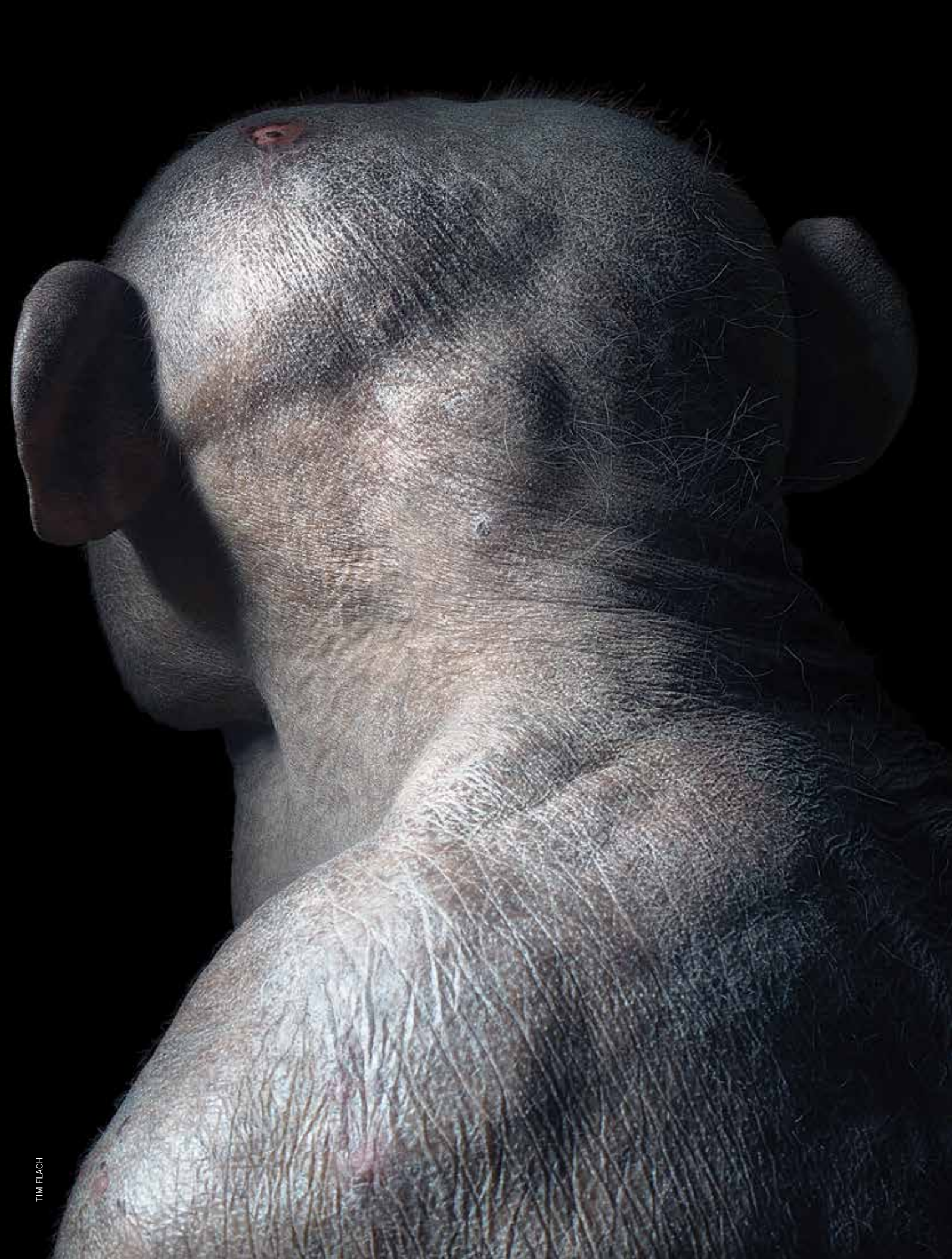
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The Oklahoma Animal Study is dedicated in memory of
JOAN KIRKPATRICK and **LOUISE RUCKS**, lifelong
advocates for the well-being of animals.



TIM FLACH



KIRKPATRICK FOUNDATION

1001 WEST WILSHIRE BOULEVARD
OKLAHOMA CITY, OKLAHOMA 73116

Telephone: (405) 608-0934

KirkpatrickFoundation.com

Twitter: @kirkpatrickfdn

Facebook: Kirkpatrick Foundation



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