

BEST PRACTICES FOR OKLAHOMA AGRITOURISM PETTING ZOOS



Prevention of Disease Transmission to Visitors

Animal exhibition or the presence of livestock or other animals at Agritourism venues is common and is an allure to the public, especially children. There are multiple positive benefits to promoting animal-related education through human-animal contact and the Oklahoma Department of Agriculture, Food and Forestry (ODAFF) along with the Oklahoma State Department of Health (OSDH) are supportive of these venues. However, the potential exists for transmission of certain infectious diseases to visitors and workers. Infectious disease outbreaks associated with animals in petting zoos, fairs, educational farms, and livestock-birthing exhibits have been caused by toxin-producing *Escherichia coli*, *Salmonella*, *Cryptosporidium*, and other infectious pathogens. During 1996-2010, approximately 150 human infectious disease outbreaks involving animals in public settings have been reported to the Centers for Disease Control and Prevention. Some of these outbreaks have been large and resulted in hospitalizations and even deaths. Animal-to-human transmission can occur when persons pet, touch, feed, or are licked by animals. Indirect transmission is also possible with some pathogens and has been associated with contaminated animal bedding, flooring, barriers, other environmental surfaces, and contaminated clothing or shoes. Although eliminating all risk from animal settings is not possible, there are prevention steps that can be taken to minimize the risk of disease transmission. These include: 1) proper care and management of animals, 2) ensuring access to hand-washing stations, 3) designing transition areas between animal and non-animal areas, 4) prohibiting food and drinks in animal areas, 5) not offering unpasteurized dairy products or juices to visitors; and 5) providing educational material or signage to the public about disease prevention procedures.



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Features of Enteric Diseases

Infections with enteric bacteria and parasites pose the highest risk for human disease from animals in Agritourism venues. Animals carrying human enteric pathogens, for example *E. coli* O157:H7 and *Salmonella* bacteria, frequently exhibit no signs of illness but can still shed the organisms. Some disease-causing bacteria are shed by animals intermittently and live for months or years in the environment. The intermittent shedding of the organisms and the limitations of laboratory testing make attempts to identify and remove infected animals an unreliable measure to eliminate the risk of infection. There are also no reliable antibiotic treatment regimens that can be used to eliminate infection, prevent shedding, or protect against the animal(s) becoming reinfected.

E. coli bacteria that produce Shiga toxin are of particular concern. These bacteria may reside in the intestinal tract of cattle, sheep, goats, deer and other ruminant animals without causing any harm to the animal host. The most familiar type of Shiga toxin-producing *E. coli* (STEC) is O157:H7, but several other strains of *E. coli* (O26, O111, O145) can also produce the toxin and cause diarrhea and abdominal cramping in persons who ingest the bacteria. Bloody diarrhea is often associated with STEC infections. Approximately, 3-5% of those infected develop severe life-threatening complications that affect the kidneys, blood cells and other organ systems. A very small dose of STEC - less than 100 organisms - is enough to cause an infection. More information about STEC and human infections can be found on the OSDH website at:

www.ok.gov/health/Disease,_Prevention,_Preparedness/Acute_Disease_Service/Disease_Information/Ecoli.html

Prevention Steps

1) Proper Care and Management of Animals

To decrease shedding of pathogens, animals should be housed to minimize stress and overcrowding. A veterinarian should be retained for preventive medical services, including rabies vaccination and parasite control appropriate for the species. All animals should be monitored daily for signs of illness; any sick animals should receive veterinary care in a timely manner. Ill animals, animals known to be infected with a zoonotic pathogen, and animals from herds with a recent history of abortion, diarrhea, or respiratory disease should be isolated from other animals and not placed on exhibit.

2) Access to Hand-washing Stations

Hand washing is the most important prevention step for reducing disease transmission associated with animals in Agritourism venues. Hands should be washed as soon as possible when exiting animal areas, after removing soiled clothing or shoes, and before eating or drinking. Hand-washing facilities or stations should be accessible, sufficient for the maximum anticipated attendance, and accessible by children. Venue staff members should encourage hand washing as visitors exit animal areas. At venues where direct animal contact is possible, signs regarding proper hand washing practices should be posted at exits from animal areas and in areas where food and drinks are served and consumed. Signage can be accessed and printed from these sites:

www.nasphv.org/Documents/HandwashingPoster.pdf

www.safeagritourism.com/Portals/0/Resources/AnimalSafety/HandwashingPolicy.pdf

www.safeagritourism.com/Portals/0/Resources/AnimalSafety/washhands.pdf

3) Transition Areas Between Animal and Non-Animal Areas

Establishing transition areas through which visitors pass when entering and exiting animal areas is very important. For areas where animal contact is encouraged, a one-way flow of visitors is preferred, with separate entrance and exit points. Do not allow strollers, toys, pacifiers, spill-proof cups, baby bottles or similar items in animal areas. Ideally, a storage or holding area should be established for strollers, wagons, diaper bags and related items.

Promptly remove manure and soiled animal bedding from animal areas. Avoid transporting manure and soiled bedding through non-animal areas or transition areas. If this is unavoidable, take precautions to prevent spillage. Minimize the use of animal areas for public activities (e.g., dances and receptions). If areas previously used for animals must be used for public events, the areas should be cleaned and disinfected, particularly if food and beverages are served.

4) Risks from Unpasteurized Dairy Products and Fruit Juices

Venue staff members should never offer unpasteurized or raw dairy products (milk, cheese, yogurt) or unpasteurized apple cider or juices to the public for consumption.

5) Prohibiting Food and Drink in Animal Areas

Signage should be posted to instruct visitors not to bring any food or drinks into animal areas. Smoking and other tobacco product use should also be disallowed in animal areas.

6) Public Education and Signage

Experience from disease outbreaks suggests that visitors who are knowledgeable about potential risks associated with animal venues are less likely to become ill. Venue operators should first become knowledgeable about the risks for disease and injury associated with animals and then be able to explain risk-reduction measures to staff members and visitors. Information should be provided to persons arranging field trips (schools, scouting trips) so that they can educate participants and parents before the visit.

Examples of signage that can be posted on the Agritourism premises are available at these sites:

www.nasphv.org/Documents/AnimalExhibitsSafety.pdf • www.safeagritourism.com/Resources.aspx