

Keeping Your Livestock Show Animals Healthy



Livestock show season can be a very exciting and busy time for exhibitors and their families. For many families, preparation and travel to shows and exhibitions require considerable time and commitment. Following good health management practices before, during, and after the exhibition will help protect these investments by keeping your livestock healthy and in good condition. Responsible exhibitors must have an understanding of common diseases of concern in exhibition animals and how to recognize signs of illness.

Disease Recognition

Exhibitors should be able to recognize common signs of illness in their animals. Contact a food animal veterinarian when any of the following signs are observed:

- Decreased or lack of eating or drinking
- Sudden decreased milk production in lactating animals
- Change in amount or consistency of manure (constipation, straining, diarrhea, change in color)
- Abnormal discharge from eyes, nose, or mouth
- Lameness or unwillingness to stand
- Fever (observed as shaking or shivering)
- Unusual patterns of hair loss or skin rashes

Temperatures in livestock may be slightly increased when they are stressed, crowded, or transported. **Table 1** lists the average rectal temperatures and ranges for livestock.

Certain symptoms can indicate a more serious ailment or foreign animal disease and should be immediately reported to your veterinarian or the on-site veterinary official. These symptoms include:

- Weakness or incoordination, stumbling, or circling
- Blisters on the mouth, muzzle, feet, or teats

Animals with any signs of infectious disease, including warts, active ringworm lesions, pinkeye, footrot, soremouth (also known as orf), or draining abscesses should not be exhibited or allowed on show premises. When your show animal requires treatment, make sure your veterinarian is aware the animal is to be shown so that banned substances are not given, your treatment records can be updated, and all withdrawal times can be followed.

Table 1. Average rectal temperatures and ranges for livestock.

Species	Average temp (°F)	Temp range (°F)
cattle (bovine)	101.3	98.0–102.8
sheep (ovine)	102.2	100.9–103.8
goats (caprine)	102.3	101.3–103.5
pigs (swine)	102.5	101.6–103.6
horses (equine)	100.4	99.0–100.8

Diseases of Concern for Livestock Exhibitors

A fair or exhibition venue brings many animals and people together in a close environment, increasing the potential for disease transmission. There are several diseases affecting multiple species or single species of animals that are of particular concern in exhibition settings. Some of these diseases are zoonotic, meaning they can be transmissible from animals to humans.

Diseases affecting multiple species

Brucellosis, also known as Bang's disease, causes reproductive problems in livestock. It is a zoonotic disease that can also cause illness in humans. Mississippi and surrounding states are free of cattle and swine brucellosis, so there is currently no vaccination or testing requirements for in-state animal movements.

Tuberculosis is a zoonotic disease that can cause respiratory problems in cattle, sheep, goats, and other animals. Mississippi is free of tuberculosis, so there are currently no testing requirements for in-state animal movements. There is no vaccination against tuberculosis.

Clostridium organisms are commonly found in the farm environment and can affect most species of animals. Vaccination is recommended for most livestock species. *Clostridia* spp. cause conditions such as blackleg, enterotoxemia (overeating disease), dysentery, and tetanus, all of which can be quickly fatal. *Clostridium perfringens* types C and D are a bigger concern in sheep and goats and cause enterotoxemia. *Clostridium tetani*, the organism causing tetanus, often flourishes in wounds or punctures.

Leptospirosis is a disease that can cause many symptoms, including kidney infections, infertility, and abortion in livestock. The organisms causing leptospirosis are commonly found in the environment and can be spread through the urine of many wild and domestic animals. It is zoonotic, and infection usually occurs through contaminated drinking water. Most breeding animals and young stock should be vaccinated.

Warts are caused by a virus and are contagious to other animals. They are commonly observed in the head and neck region of show cattle. A vaccine is available, and autogenous (self) vaccines can be made in the face of an outbreak.

Ringworm is caused by several types of fungus and causes circular skin lesions on affected animals, especially cattle and small ruminants. It can be spread easily from animal to animal or through brushes, combs, or contaminated environments. Humans can contract ringworm, so people handling infected animals should wear gloves and take additional precautions to prevent exposure.

Pinkeye causes conjunctivitis and epiphora (excessive tearing) in affected animals. It can be caused by several different bacteria and viruses in livestock and is transmissible by direct contact or through vectors. Fly control and prevention of eye irritation caused by dust and plants are important management practices to help prevent pinkeye. A vaccine is available for infections caused by certain bacterial pathogens.

Diseases affecting specific species

Bovine viral diarrhea virus (BVDV) affects many ages of cattle and can cause several different disease symptoms such as respiratory disease, diarrhea, and reproductive disorders. Some animals may be infected with BVDV and not show any clinical signs, so it is recommended that all show cattle be tested using the ear notch sample test for BVDV. Some fairs and exhibitions require BVDV testing of cattle, and vaccination is recommended for all ages of cattle.

Contagious ecthyma, also known as orf or sore-mouth, is a contagious and zoonotic viral skin disease primarily affecting sheep and goats. Painful skin lesions and scabs on the muzzle of affected animals may prevent them from eating and drinking. It can be spread easily by direct contact or through contaminated materials. People handling animals with orf should wear gloves and take additional precautions to prevent infection.

Erysipelas is a disease of swine caused by the organism *Erysipelothrix rhusiopathie*, which is commonly found in the pig's environment. Erysipelas can cause lack of appetite, high fever, lameness, and distinct purple, diamond-shaped skin lesions in growing pigs, which are most susceptible to the disease. Erysipelas can rarely cause lesions in humans that have handled infected pigs.

Pseudorabies is a disease of swine caused by a virus (PRV). It can be fatal to baby pigs. It can also cause pigs to bite and scratch themselves, a condition known as "mad itch." Mississippi is free of pseudorabies.



bies in domestic swine, but some fairs and exhibitions may require PRV testing of swine.

Swine influenza is a respiratory disease caused by a virus that is commonly found in swine populations. Vaccinations are available for several strains of the virus. In rare cases, the virus can mutate and cause disease in humans. Similarly, in rare cases, humans can transmit influenza to swine.

Equine infectious anemia (EIA), also known as swamp fever, is an equine disease spread by biting insects. Signs are nonspecific and include fever, weakness, and anemia. Some animals may be infected and not show any clinical signs. A Coggins test can detect EIA, and an official negative Coggins test is required when horses are congregated for exhibitions or shows.

Salmonella pullorum and *Salmonella typhoid* are zoonotic pathogens that can be found in live poultry. Most shows and exhibitions require birds to be negative on the pullorum-typhoid test or originate from a U.S. pullorum-typhoid free flock.

Disease Prevention

Disease prevention begins as soon as you acquire your animal through natural addition (birth) or purchase from an outside source. Purchase animals only from reputable breeders who follow sound health management and record-keeping programs. Having a good herd health program, including biosecurity measures, proper vaccination and parasite (internal and external) control protocols, and good nutrition will help ensure the overall health of the herd. The

most common way diseases are spread is through contact with infected animals. This can occur during animal-to-animal contact, or contact with equipment or other objects containing infectious organisms.

Biosecurity measures are steps taken to prevent the introduction, reintroduction, or spread of diseases in animal populations. It is very important to regularly clean and disinfect all equipment used in feeding your animals (scoops, shovels, buckets, bottles, water troughs, etc.) and to use separate equipment for feeding and manure handling. New animals arriving at your farm should be quarantined, preferably for 30 days, to make sure they are not carrying any harmful diseases. Equipment such as buckets, shovels, manure forks and rakes, wheelbarrows, and halters used to care for animals in quarantine should not be used with nonquarantined animals elsewhere on your farm. Animals in quarantine should be cared for and handled after other animals on the farm to prevent any possible disease spread.

Clothing and boots used in the quarantine area should not be worn when working with other animals in your herd and should be thoroughly washed and disinfected before the next use. Quarantine should also apply to your animals leaving the farm for exhibitions, breeding, or any other time they are comingled with outside animals. Discuss with your veterinarian any recommended tests or vaccinations that should be administered to purchased animals before their arrival at your farm. In addition to quarantine measures, limit visitors' direct contact with your animals, especially if the visitors have been on other farms or have traveled outside the country within the past week.



A sound vaccination program should be part of your biosecurity plan. Vaccinations help prevent disease when an animal is exposed to harmful pathogens. The goal of a vaccination program is to protect your animals from the more common diseases affecting livestock. Vaccinations must be given in the proper manner and at the proper time to be effective. Most of the vaccines listed in this publication are available in a combination shot. Your veterinarian can help determine which vaccinations are recommended in your particular area and situation. Some general guidelines for livestock show animals are listed in **Table 2**.

Proper nutrition is the cornerstone of sound animal health management and essential for optimal growth and immunity. Avoiding sudden diet changes in the weeks before and during the exhibition will help prevent diarrhea, acidosis, bloat, and founder. **Diarrhea (scours)** can be caused by many factors in an exhibition environment, including stress, feed or water changes, overfeeding concentrate, illness, or parasites. Scours can cause dehydration and lead to more serious ailments. **Acidosis** occurs when there is a sudden increase in lactic acid in the rumen, commonly encountered with the consumption of lush legume pastures or high-concentrate diets such as grain finishing feeds. Acidosis often precedes bloat. **Bloat**

is a sudden swelling in the rumen of cattle, sheep, and goats caused by gas accumulation that results in difficult breathing. Treatment must be administered as soon as possible so the animal does not suffocate. **Founder** is an abnormal growth in hooves caused by eating too much grain, resulting in painful lameness. A sudden increase in grain intake can lead to acidosis, which increases blood flow to the feet, causing the abnormal hoof growth.

Developing and maintaining a good veterinary-client-patient relationship (VCPR) helps protect your animals' health. A VCPR exists when your veterinarian is familiar with your operation and knows enough about your animals to be able to prevent, diagnose, and treat medical conditions they may encounter. As part of a VCPR, your veterinarian can make judgments about your animals' health condition, recommend prevention and treatment options, keep medical records, and be available for follow-up if additional care is needed. A VCPR is also required in many cases for the treatment and dispensing of some medications, including any case where an approved medication is administered off-label.

Exhibiting livestock can be an enjoyable and educational experience. By following some simple recommendations, you can keep your livestock healthy and protect other animals and people from potentially harmful diseases.

General recommendations to follow BEFORE an exhibition

- Follow your veterinarian's recommendations and make sure vaccinations (including necessary boosters) are given at least 2 weeks before the show. Animals should be properly treated for internal and external parasites using recommended deworming and fly control products.
- Clean and disinfect all equipment (buckets, shovels, manure rakes and forks, wheelbarrows, ropes, halters, combs and brushes, clippers, and others) before leaving home.
- Make sure health certificates or certificates of veterinary inspection (CVI) are current and include proper animal identification, health statements, and consignee (destination) information. In Mississippi, health certificates for show animals are valid for 60 days (usually only 30 days for animals not on a show circuit). Always check with your veterinarian for additional information and clarification about specific requirements.

Table 2. General vaccination guidelines for livestock show animals.

Type of animal	Recommended vaccinations	Optional vaccinations
beef breeding cattle	<i>Clostridium</i> vaccine (7- or 8-way) respiratory viral vaccine (IBR, PI3, BVD, BRSV) <i>Leptospira</i> spp. and <i>Campylobacter</i> vaccines	rabies <i>Pasteurella multocida</i> <i>Mannheimia haemolytica</i> warts pinkeye
dairy breeding cattle	<i>Clostridium</i> vaccine (7- or 8-way) respiratory viral vaccine (IBR, PI3, BVD, BRSV) <i>Leptospira</i> spp. and <i>Campylobacter</i> vaccines	rabies <i>Pasteurella multocida</i> <i>Mannheimia haemolytica</i> warts pinkeye <i>E. coli</i> mastitis vaccine
market cattle	<i>Clostridium</i> vaccine (7- or 8-way) respiratory viral vaccine (IBR, PI3, BVD, BRSV) <i>Pasteurella multocida</i> <i>Mannheimia haemolytica</i>	rabies warts pinkeye
breeding sheep and goats (most vaccines are labeled for sheep only)	<i>Clostridium perfringens</i> types C&D <i>Clostridium tetani</i> (tetanus) <i>Pasteurella multocida</i> <i>Mannheimia haemolytica</i>	rabies contagious echthyma (orf, soremouth) chlamydia footrot
market sheep and goats (most vaccines are labeled for sheep only)	<i>Clostridium perfringens</i> types C&D <i>Clostridium tetani</i> (tetanus) <i>Pasteurella multocida</i> <i>Mannheimia haemolytica</i>	rabies contagious echthyma (orf, soremouth) <i>Corynebacterium pseudotuberculosis</i> (caseous lymphadenitis, CLA) chlamydia footrot
poultry	Marek's disease fowl pox	
market hogs	<i>Erysipelothrix rhusiopathie</i> (erysipelas) <i>Bordetella bronchiseptica</i> (atrophic rhinitis) <i>Mycoplasma hyopneumoniae</i> <i>Pasteurella multocida</i> circovirus streptococcus/parasuis actinobacillus	parvovirus leptospirosis swine influenza PRRS
equine	rhinopneumonitis (EHV-1 and EHV -4) equine influenza virus encephalomyelitis (Eastern, Western, Venezuelan) <i>Clostridium tetani</i> (tetanus)	rabies West Nile



- If traveling across state lines, check the import requirements of the state of destination.
- Several days before departure, carefully inspect your livestock trailer to be sure it is in good operating condition (tires, brakes, lights, flooring, safety chains, etc.). Be sure the trailer has adequate ventilation and secure, slip-resistant flooring and that it is thoroughly cleaned and disinfected before and after each use.
- If transporting with other animals, arrange for a drop-off point to prevent haulers with multiple animals from multiple farms from entering your premises. Know the health and vaccination status of animals that are hauled with yours, and avoid contact with all visibly ill animals.
- Bring the amount of feed and forages your animals are accustomed to consuming so they will have enough to last while they are at the exhibition.
- Leave companion animals (pets) at home. In addition to serving as vectors for pathogens, other animals can become stressed themselves and be more susceptible to disease.

***General recommendations to follow
DURING an exhibition***

- Limit commingling of your animals with others as much as possible during transportation.
- Keep copies of health certificates, vaccination records, and test results on hand and readily available if needed.
- Keep older animals separate from younger animals as much as possible.
- Provide plenty of fresh water and feed. Avoid changing sources and types of feed and water during the exhibition. Do not allow manure to contaminate your animals' feed, water, forages, or feeding equipment.
- Don't share equipment with other exhibitors unless it has been cleaned and disinfected between uses.
- Avoid contact with other people's animals, and do not enter their pens. If contact is unavoidable, be sure to wash your hands and shoes frequently.
- Keep unused feed and forages covered to reduce risk of contamination.
- Minimize stress by keeping animals cool, clean, and comfortable. Use recommended fly control products as appropriate.

Completing the Mississippi Livestock Exhibition Health Form

All exhibitors at the Mississippi State Fair or Dixie National Junior Roundup Livestock Show must document the use of any drugs and/or medications administered to animals entered into these livestock shows by using the appropriate animal health forms from the MSU Extension Service.


Youth exhibitors should complete this section using their physical home address. Up to three exhibitors from the same family may be listed on one form.

All animals to be shown by the same exhibitor or family must be listed. All individual identifying numbers should be listed. Animal names are not acceptable.

ALL treatments administered must be listed here. "All" can be specified, and animals do not have to be listed individually, if all animals were treated with the same treatment and dose.


All medicated feeds, including feeds containing antibiotics or growth-promoting compounds, must be listed here, even if there are no withdrawal times or the withdrawal times have passed.

Market Swine Health Record



MISSISSIPPI STATE UNIVERSITY
EXTENSION SERVICE

Exhibitor Information
 Name: Arthur Hogggett
 Address: 123 Rex Lodge
Champion, MS 39741
 County: Clay
 4-H Agent/FFA Advisor: Leidward Fly



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Animal Information Up to 6 animals in the same show exhibited by the same exhibitor may be listed on this form.

Animal ID # (ear tag or tattoo)	MS-bred ID # (ear tag)	Breed	Color	Sex	This animal has not received any treatments or medications, including medicated feeds, while under my care unless specified below.
524		Cheser	white	M	<input type="checkbox"/> exhibitor's initials: _____ (check & initial)
525		Yorkshire	white	M	<input type="checkbox"/> exhibitor's initials: _____
527		Yorkshire	white	M	<input type="checkbox"/> exhibitor's initials: _____
					<input type="checkbox"/> exhibitor's initials: _____
					<input type="checkbox"/> exhibitor's initials: _____


Treatment Information Document ALL treatments, medications, vaccinations and dewormers and their withdrawal times.

Animal ID # (may specify "all" for vaccines, dewormers)	Date Treatment Given	Condition Being Treated	Treatment Administered			Name (Person giving treatment)	Withdrawal Time (Days instructed)	Withdrawal Complete (Date)
			Medication, Vaccine, Dewormer	Amount Given	Route of Admin.			
527	9/10/12	scours	Neomycin	15ml	oral	K. Hogggett	3d	9/13/12
527	9/11/12	scours	Neomycin	15ml	oral	K. Hogggett	3d	9/14/12
525	9/16/12	scours	Neomycin	15ml	oral	K. Hogggett	3d	9/19/12

Medicated Feeds Document ALL medicated feeds and withdrawal times. Extra-label use of feed additives is prohibited.

Animal ID# (or specify "all")	Dates Fed (From - To)	Medication (Type/amount added to feed)	Withdrawal Time (Days)	Withdrawal complete (Date)
all	9/26/12-9/20/12	penicillin 9/19/12	0	9/20/12

Give subcutaneous (Sub-Q) injections and intramuscular (IM) injections in the neck, in front of the shoulder. If label indicates a choice, use Sub-Q (under the skin) injections.



NEVER inject into the ham or loin area.

I certify that I cared for this animal, it was not fed any "prohibited" mammalian protein (i.e., meat & bone meal), per FDA regulation, CFR Title 21, and I have listed ALL products and treatments these animals received while in my care.

Youth Signature: Arthur Hogggett Date: 9/23/12
 Parent Signature: Alan Hogggett Date: 9/23/12

White - Youth Show/Fair copy • Canary - Youth Producer's Copy • Pink - Youth Agent's Copy

Discrimination based upon race, color, religion, sex, national origin, age, disability, or veteran's status is a violation of federal and state law and MSU policy and will not be tolerated. Discrimination based upon sexual orientation or group affiliation is a violation of MSU policy and will not be tolerated.
 Form 1062 (1M-06-13)

If the animal has not received any treatments, this box should be checked and initialed by the exhibitor. If this box is NOT checked, the animal should be listed under the Treatment Information or Medicated Feeds section.

ALL treatments, medications, vaccinations, and dewormers that have been given to the animal in the last 60 days must be listed here, even if there are no withdrawal times or the withdrawal times have passed.

The withdrawal time is the period of time from the last treatment until the animal can be marketed for harvest.

Both the youth exhibitor and the parent/legal guardian must sign this section as an affidavit that all treatments have been listed and that no prohibited materials have been fed to the animal while under their care. Any treatments administered AFTER this affidavit is signed must be listed on this or another attached form with appropriate withdrawal dates listed.

- Properly dispose of used bedding and uneaten, stale feed.
- Observe animals closely several times a day for illness, and immediately report any suspicious symptoms to animal health officials.
- Closely monitor lactating dairy animals throughout the exhibition to be sure they are comfortable and have easy access to fresh, clean feed and water. Follow all recommended milking procedures and maintain clean bedding while at the show to help ensure good udder health and high milk quality.
- If your animals show any signs of illness, contact a veterinary official as soon as possible. To prevent disease spread, limit contact with other animals as much as possible until the animal can be examined by the veterinarian.
- If you, your family members, or other people in your group become ill or develop unusual skin rashes during the exhibition, avoid contact with animals and promptly seek medical attention.

General recommendations to follow

AFTER an exhibition

- Properly dispose of leftover bedding, feed, and forages at the show facility or an appropriate off-farm site before returning home.
- All equipment returning to the farm should be cleaned and disinfected before leaving the show facilities.
- Keep fair animals isolated from other animals on your farm for a minimum of 14 days and preferably 30 days.
- Feed, water, and tend to animals in isolation last to avoid any possible cross-contamination to other animals.
- Carefully monitor animals in isolation for signs of illness.

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