

Medical Surveillance Program

MSP Enrollment

General Zoonotic
Training

Farm Animal
Training

Fish, Amphibians and
Reptiles Training

Wild Animal
Training

Lab Animal
Training

FARM ANIMALS

Welcome to the CU Livestock Facilities !

Working with animals at Clemson is as safe and healthy as working around any farm animals can be (and probably *more* so), because Clemson University animals are:

- Under constant faculty, staff, and student observation for signs of physical problems or disease
- Immunized and protected from standard farm animal diseases that could occur in SC
- Given continuous, excellent veterinary care
- Humanely treated and taken care of by CU students and employees who are very concerned about animal welfare

Learn more
about:

[Cattle](#)

[Horses](#)

[Poultry](#)

[Swine](#)

[Goats and
Sheep](#)

For “Newcomers” to the Farms...

For those of you who have not lived on a farm, this will be a challenging new environment for you. Your exposures to large animals *or groups of many small animals*, animal feed and bedding, farm machinery, chemicals, and perhaps some new germs, will present a challenge to your *body* as well as to your *mind*. It will take training, and common sense on your part to be safe and make the most of your farm experiences and education.

Farm Health and Safety...

You will be given training on the humane care and use of animals, as well as species/farm specific training. However, the following sections will provide information regarding mostly *human* health and safety issues in animal farming. You will be introduced to safety hazards and some diseases that can be carried by farm and non-farm animals and transmitted to humans. These diseases are called “zoonoses” or “zoonotic diseases.” ***The most valuable precaution you can take to keep yourself healthy is also the easiest, cheapest, and most elementary procedure that you’ve known most of your life -- to wash your hands after touching animals, their bedding, and their body fluids.***

Wash your hands frequently and keep them out of your mouth. DO NOT EAT OR DRINK FROM OPEN CONTAINERS IN THE IMMEDIATE AREA OF ANIMALS TO AVOID FECAL CONTAMINATION OF WHAT YOU ARE CONSUMING!

Also remember that, in the same way that cats and dogs have vastly different personalities, *each animal species*, and *each individual animal* also has its' own distinct personality. Visual and hearing ability also differ among the species, and farm animals can be frightened by loud noises and unexpected movements. As expected, they may react by lurching or biting, and most farm animals are large enough to cause some real damage if you don't work carefully around them. Even fish can inflict pain and disease by biting or "finning" aquaculture workers.

Bites, Scratches, Kicks, Machinery Accidents, etc...

THERE ARE 140,000 U.S. FARM INJURIES EACH YEAR; 14,000 ARE FATAL (ONE IN TEN!). Be careful around animals and farm equipment and use them as intended. For the safety and welfare of yourself and the animals, don't bypass safety devices or rules. Have lots of fun and enjoy the animals and farms, but NO "HORSEPLAY" IN AREAS AROUND MACHINERY OR CLOSE TO ANIMALS.

Exercise Good Judgment and Technique to Minimize Risk...

- Machinery accidents -- usually caused by carelessness or lack of knowledge of the operating characteristics of the equipment
- Animal kicks, bites, etc. -- learn how to handle animals safely
- Lifting animals, cages -- can cause sprains/strains and pinched fingers
- Chemicals, pesticides, cleaning solutions – Be familiar with the information on the label of pesticides, and with the Material Safety Data Sheets (MSDS) for cleaning solutions and other chemicals. Know how to find the MSDSs in case of an emergency.
- Anesthetics, latex, development of animal allergies
- Diseases – via bites or wounds, or by ingestion or inhalation of animal excreta

Regulations...

- Avoid eating or drinking while handling animals, and wash hands thoroughly when finished with animals.
- Wear protective clothing and disposable latex or nitrile gloves for some procedures -- or thick leather gloves
- Wash hands after removing gloves. Store (and wash) farm clothing separate from your street clothes – for farm biosecurity and your own health.

Recommendations....

Handling animals and working in farming environments is usually not going to make you ill, but you should still:

- Practice good sanitation procedures with animals, and minimize exposure to vectors such as ticks & mosquitoes.
- Become familiar with the zoonotic diseases that might be present in your species or your area of the country
- Recognize zoonotic symptoms, seek prompt medical attention if they occur, and relay information to MD
- For any unusual or atypical illness, promptly seek medical treatment and inform physician of recent exposures

IMPAIRED IMMUNE SYSTEM (Immunosuppression / Immunocompromise):

This can be congenital or caused by HIV/AIDS or other diseases, cortisone or other medications, chemotherapy, radiation, etc. Certain animal exposures and zoonoses can be very serious (or sometimes fatal) for persons with reduced immunity to disease. *If you suspect your immune system may be abnormal, seek immediate medical attention for diagnosis, treatment and determination as to whether or not animal exposure is safe for you.*

Cryptosporidiosis... Cryptosporidia are protozoal parasites that can live in the intestines of humans, farm animals, wild animals and household pets. In most persons Cryptosporidiosis would appear as an acute, self-limiting diarrheal illness usually lasting about 7-14 days. Immunologically compromised individuals (especially AIDS patients) or those individuals receiving immunosuppressive therapy may be unable to clear the parasite, and may

develop chronic, severe diarrhea with malnutrition, dehydration, and death. Symptoms include watery diarrhea and cramps, sometimes severe. Nausea, vomiting, fever, and resulting weight loss, are also possible.

Rats and mice probably are a reservoir for *C. parvum* infection in calves, and these strains are cross-transmissible between calves and man. Always use good hygiene practices when handling young animals (particularly calves). Use of gloves, followed by thorough handwashing, is recommended if there is a likelihood of direct skin contact with infective stages of the parasite.

There is currently no cure for Cryptosporidiosis; most people develop immunity and recover from the infection. However, immuno-suppressed individuals should not expose themselves to animals or humans with known Cryptosporidiosis infection, and should seek medical counseling regarding their possible need to avoid animal contact.

Histoplasmosis... Spores may be present in sites with an accumulation of animal feces, especially from birds and bats, because these "enrich" the soil and promote growth of the fungus. When these materials become dry, spores are spread by the wind, and the disease can be contracted by inhalation. Many people have had histoplasmosis and didn't know it – it can be mild, have no symptoms, or can appear as an acute respiratory illness with flu-like symptoms -- sometimes misdiagnosed as the flu. Avoid digging and disrupting the soil in areas below bird and bat roosts. Before removal of material such as this, *it must be moistened to minimize dust, and a respirator should be worn to prevent the inhalation of spores.* Before starting a job or activity having a risk for exposure to *H. capsulatum*, consult the NIOSH/NCID document "Histoplasmosis: Protecting Workers at Risk."
<http://www.cdc.gov/niosh/tc97146.html>

Wild Animal Exposure and Rabies...

Rabid or diseased wild animals often show changes in behavior, becoming either docile, vicious, or unafraid of humans. *Normally-nocturnal* animals that are out in the daytime *OR domestic free-ranging pets behaving strangely* may be rabid. If sighted, try to "distance" yourself from wild animals that appear sick, dying, or exhibiting unusual behavior (walk, don't run). Call the University Facilities Department (656-2186) for removal of animals (including skunks) from Clemson property. After hours, call the CU Police Department at 656-2222.

If Bitten by a Wild Animal... immediately wash any wounds with soap and water. Report the bite to your local

health department). It is their responsibility to require quarantining or testing of biting animals for rabies. Call the Pickens County (or your local county health department) M-F 8-4:30 (or SC DHEC in Columbia, SC over the weekend) and follow their recommendations. Do not kill any animal in such a way that the head will be damaged. The head must be in good condition for laboratory testing. Do not place in a freezer or ice chest because this will destroy the virus if present.

Tick-borne Diseases...

Rocky Mountain Spotted Fever and Ehrlichiosis: Early symptoms include sudden onset of high fever, severe headache, muscle pain. Rash starting on the extremities about 3 to 6 days after onset of symptoms and extending to the palms of hands and soles of feet and then to the rest of the body. Seek immediate medical attention! Delirium, coma, and death occur in 15% to 20% of untreated cases. No vaccine available – must be treated as an emergency. "Don't wait for rash to appear before seeking medical attention!"

Lyme Disease is carried by deer ticks. Early symptoms include flu-like illness with onset of headache, slight fever, muscle or joint pain, neck stiffness, swollen glands, jaw discomfort, and inflammation of the eye membranes. Characteristic "bull's-eye" rash with central clearing and darkening around the edge is present only in 50% of cases. Complications including heart disease, neurological problems, and arthritis-like joint problems may develop if untreated, and these can become permanently disabling.
<http://www.mayoclinic.com/invoke.cfm?objectid=B1CBCBF8-BCD9-46AE-A2BF23A1D66D7957>

Southern Tick Associated Rash Illness (STARI) is carried by the Lone Star tick. STARI has the same signs and symptoms as Lyme Disease, but doesn't show up on a Lyme Disease titer (blood test). Similar to Lyme Disease if untreated (heart, joint, neurological problems) which can be permanently disabling. Treated same as other 3 tick illnesses – oral antibiotics if discovered early, more intense treatment if discovered in later stages

Repel ticks using...

Protective Clothing - long pants, long-sleeved shirts, light-colored clothing, and tuck pant legs into socks

Chemicals (*Read and heed directions on the label*):

DEET... recognized as safest and most effective repellent, but reports of toxicity exist.

Permethrin...intended for use on clothing and shoes, not skin - last about 2 weeks after several washings

Tick Removal (very carefully)...

Check for ticks daily after being in wooded areas. Don't "provoke" or crush the tick during removal (you do not want it to regurgitate). Remove tick gently (lift as close to the head as possible so it is removed with the body). Record the date of bite on your calendar and watch for symptoms for at least a month (see above).

West Nile Virus... WNV is transmitted by mosquito bites, and can cause illness in humans. If so, it is usually mild (*headache, nausea, swollen glands, and sometimes a body rash*), but can also cause paralysis or encephalitis, more likely in babies, the elderly, and persons who are weak or immunosuppressed. Avoid mosquito bites to avoid infection. Apply insect repellent (follow product label precautions) or stay indoors when mosquitoes are biting, and wear long, loose clothing to minimize bite exposure.

Spider Bites and Bee Stings... Black Widow and Brown Recluse spiders both hide in dark areas (under water troughs, for instance). The bite of the Brown Recluse causes tissue necrosis that can be quite severe. The bite of the Black Widow can cause abdominal pain as well as heart problems and paralysis of the diaphragm, which can be devastating to the elderly.

The protein injected in bee stings can be dissolved by the immediate use of Adolf's *unseasoned* meat tenderizer (mixed with a drop of water to form a paste, and applied to the sting site. Anyone allergic to bees or wasps should have an EPI-PEN available at all times. Make sure your instructor, farm manager, and co-workers know you are allergic to bees, know the location of your EPI-PEN, and know how to use it.
<http://www.mayoclinic.com/invoke.cfm?objectid=08D93ABE-BAB7-4ACB-AC561A2CFA4765C2>

Snakebites... Don't panic or run – keep bitten part **below** heart (so veins don't carry venom down to your heart). Call "911" for transport and try to identify the snake to them so the proper the ER can be prepared for your arrival.

<http://www.mayoclinic.com/invoke.cfm?objectid=2CA37AE9-7B67-484F-AC3FA7B86D8EB430>

Disease Avoidance...

Wear gloves and wash your hands frequently; keep your hands (and gloves) out of your mouth while working!

Wear respirators as needed for dust or allergies

Discard needles safely and properly

Any questions or concerns?

Sue Pedrick, RN, BSN, COHN-S

Occupational Health Nurse for Clemson University

Email: spedric@clemson.edu

656-3076-appointment line

656-5529-direct line

To complete the training, proceed to training for [Cattle](#),
[Horses](#), [Poultry](#), [Swine](#), [Goats and Sheep](#).

[MSP Enrollment](#) / [General Zoonotic Training](#) / [Farm Animal Training](#) /
[Fish, Amphibians, and Reptiles Training](#) / [Wild Animal Training](#) / [Lab Animal
Training](#) /

[EHS Training](#) / [Office of Research Compliance](#)

This page was updated on August 10, 2004, and is maintained by [Sue Pedrick](#) in the Joseph F. Sullivan Center
of the College of Health, Education, and Human Development

© Medical Surveillance Program * Clemson University * Clemson, South Carolina, 29634