

## Occupational Health for Animal Handling Care and Use of Sheep

The Occupational Health Program is designed to inform individuals who work with animals about potential zoonoses (diseases of animals transmissible to humans), personal hygiene, and other potential hazards associated with animal exposure. This information sheet is directed toward those involved in the care and use of sheep.

### Potential Injury and Zoonotic Diseases

Sheep are large domestic animals that are normally docile. However, they can become dangerous especially when isolated from their flock. Jumping is common in sheep and they can jump with enough force to break a handler's legs. Butting is another defensive activity of sheep, and the rule of handling is to never turn your back on the animal when in their pens. Ergonomic injuries such as back strain can occur from handling and restraining sheep due to their size and strength; therefore individuals with pre-existing back or joint problems may need assistance when working with sheep.

Zoonotic diseases, as with other farm animals, can be a hazard when working with sheep. The following lists several of the diseases that are associated with the care and handling of sheep.

**Rabies:** Rabies virus (rhabdovirus) can infect almost any mammal. The source of infection to people is an infected animal. The virus is shed in saliva 1-14 days before clinical symptoms develop. Any random-source (animal with an unknown clinical history) or wild animal exhibiting central nervous system signs that are progressive should be considered suspect for rabies. Transmission is through direct contact with saliva, mucus membranes, or blood, e.g. bite, or saliva on an open wound. The incubation period is from 2 to 8 weeks or even longer. Symptoms are pain at the site of the bite followed by numbness. The skin becomes quite sensitive to temperature changes and there are laryngeal spasms. Muscle spasms and extreme excitability are present and convulsions occur. Rabies in unvaccinated people is almost invariably fatal. Rabies vaccine is available through Occupational Health at Student Health Services.

**Q-Fever:** This rickettsial disease, caused by *Coxiella burnetii*, is most commonly associated with sheep, although goats, cattle, and other mammals can be sources of infection. Infected ruminants are usually asymptomatic. The rickettsia is shed in the urine, feces, milk, and most importantly, birth products (placenta, amniotic fluid, blood and soiled bedding) of infected animals. Q-fever is spread by aerosolization of infected body fluids. Disease transmission can be reduced by careful disposal of birth products. In most cases Q-fever is manifested by flu-like symptoms that usually resolve within 2 weeks and can be sometimes misdiagnosed as the flu. However, it can be severe in those with other health issues and can lead to pulmonary and cardiac complications. Respiratory protection should be used during the lambing process.

**Contagious Ecthyma:** (Orf) This poxviral disease is known as contagious ecthyma or soremouth in sheep and goats, and orf in people. In ruminants, it is evidenced by exudative (oozing) lesions found on the muzzle, eyelids, oral cavity, feet or external genitalia. It is more common in younger animals. The disease in ruminants is contagious to humans and other animals. Infected sheep or goats are the source of infection to people. Transmission can be by direct contact with lesions or indirectly by contaminated fomites (hair, clothing). No person to person contact has been reported. This is a self-limiting infection, which is usually found on the hands and consists of painful nodules (bumps) and cutaneous ulcerative lesions, and usually lasts 1-2 months.

**Other Diseases:** There are other diseases that are associated with contact to sheep, such as brucellosis, campylobacteriosis, coccidiomycosis, cryptosporidiosis, giardiasis and anthrax. Good

personal hygiene and the wearing of the appropriate personal protection are effective measures for preventing illness

## **Allergies**

Animal related allergies are common. Although there are no known sheep allergens, the sheep containment environment may have allergens present in hay and dust. Contact dermatitis can also occur when handling sheep wool

## **How to Protect Yourself**

- Wash your hands. The single most effective preventative measure that can be taken is thorough, regular hand washing. Wash hands and arms after handling sheep. Never smoke, drink, or eat in the animal areas or before washing your hands.
- Wear gloves. Wear the appropriate gloves for the task and wash your hands after removing gloves.
- Wear respiratory protection. For some activities, respiratory protection should be worn. Your supervisor should be your resource for this equipment. If you wear a respirator, you must be fitted and tested for use through Environmental Health & Safety.
- Wear other protective clothing. Coveralls should be available and worn when working with sheep. Avoid wearing street clothes while working with animals.
- Seek Medical Attention Promptly. If you are injured on the job, promptly report the accident to your supervisor, even if it seems relatively minor. Minor cuts and abrasions should be immediately cleansed with antibacterial soap. For more serious injuries or if there is any question, students should report to OSU Student Health Services, employees (faculty and staff) to the Corvallis Clinic Occupational Health department.
- Tell your physician you work with sheep. Whenever you are ill, even if you're not certain that the illness is work-related, always mention to your physician that you work with sheep. Many zoonotic diseases have flu-like symptoms and would not normally be suspected. Your physician needs this information to make an accurate diagnosis. Questions regarding personal human health should be answered by your physician.