Care and Use of Goats

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 goats.

Potential Injury & Zoonotic Diseases

Goats are more difficult to handle than cattle or sheep. They do not flow through handling systems with ease. When they are frightened, they may lie down and sulk and pack in a corner, risking injury to other goats. They can also become aggressive towards each other. They move in family groups with the older females moving first. Their defense mechanisms are to ram or bite. They may need higher gates than sheep and will find escape spots in most handling systems if they exist. Ergonomic injuries, such as back strain, can occur from handling and restraining sheep due to their size, strength and agility. Therefore individuals with pre-existing back or joint problems may need assistance when working with sheep. The following is a list of zoonotic diseases associated with goats:

**Q-Fever:** This rickettsial disease, caused by *Coxiella burnetti*, is most commonly associated with sheep, although goats, cattle, and other mammals can be sources of infection. Infected ruminants are usually asymptomatic. The rickettsia are 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 birthing process. Employees can be screened for Q-Fever through UCD Occupational Health Services.

**Contagious Echthyma (Orf):** This poxviral disease is known as contagious echthyma, or sore mouth in sheep and goats and orf in people. In ruminants, it is evidenced by exudative (draining) lesions found on the muzzle, eyelids, oral cavity, feet or external genitalia. It is more common in younger animals. In ruminants, the disease is highly 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 from contaminated objects such as hair or clothing. This is a self-limiting infection that is usually found on the hands. It consists of painful nodules (bumps), cutaneous ulcerative lesions (open sores), and usually lasts 1-2 months.
**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, possibly longer. Symptoms are pain at the site of the bite, followed by numbness. The skin becomes quite sensitive to temperature changes and laryngeal spasms are present. Muscle spasms, extreme excitability, and convulsions occur. Rabies in unvaccinated people is almost invariably fatal. Rabies vaccine is available through Occupational Health Services.

**Other Diseases:** *Brucellosis, salmonellosis, giardiasis* are other diseases that can be transmitted through contact with goats. In humans, these diseases initially exhibit as an acute gastrointestinal illness (nausea, vomiting, and diarrhea).

**Allergic Reactions**

The hair and dander of the goats can be a source of allergies. Proteins secreted by oil glands in an animal’s skin, as well as the proteins present in an animal’s saliva, can cause allergic reactions in some people. Allergies to animals can take two or more years to develop, and symptoms may not subside until months after ending contact with the animal. Symptoms may include sneezing, congestion, and itchy, watery eyes. Skin rash and itching may also occur.

**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 goats. Never smoke, drink or eat in the animal areas or before washing your hands.

- **Wear protective clothing.** When working with goats, wear appropriate coveralls and foot wear, and remove them after completing your work.

- **Wear respiratory protection.** Dust masks should be worn during grooming or if you already have allergies and you are outside in dusty areas.

- **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 and then protected from exposure to dirt or animal secretions. For more serious injuries or if there are any questions, employees should report to Occupational Health Services.

- **Tell your physician you work with goats.** 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 goats. 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.

**Contact**

**Occupational Health Services**