

## CSU VTH EQUINE AND LIVESTOCK RABIES INFORMATION SHEET

Rabies is an important concern for pets and livestock in Colorado. Only mammals are susceptible to rabies. However, small rodents and rabbits are rarely found to be infected. Both bat and terrestrial rabies are present in Colorado. Bat rabies has been present for many years and is rarely a problem for livestock since the two populations do not generally come in contact for transmission. Terrestrial rabies is an increasing problem since 2008 with the introduction into the skunk population. The term “terrestrial” rabies comes from the population of animals that serve as the reservoir for the rabies virus and are unable to fly. In Colorado, that is wild mammals such as skunks and raccoons rather than bats. Other wild animals can also develop rabies when exposed to infected skunks or raccoons. The risk of rabies exposure to livestock, pets, and humans increases with the presence of terrestrial rabies compared to just bat rabies.

### **RABIES PREVENTION IN HORSES AND LIVESTOCK**

Rabies is a preventable disease. The risk of rabies can be greatly decreased when pets and livestock are properly vaccinated. This includes cats, dogs, horses, cattle, sheep, goats, swine, and camelids (llamas and alpacas). There are several large animal vaccines available for horses, sheep, and cattle. It is recommended to have a veterinarian administer the vaccine to ensure that the proper vaccine is used, stored properly, and administered per labeled directions. Animals vaccinated by non-veterinarians may be handled differently by the Colorado Department of Agriculture, the Colorado Department of Public Health and Environment, and/or local health officers.

Horses and livestock over 3 months of age can be vaccinated. The method of administration and interval between vaccinations varies slightly between specific vaccines. Rabies booster vaccination should be given yearly after the initial vaccination for most of the vaccines. Rabies vaccines are considered safe to administer in pregnant animals and are not associated with abortions.

There are no rabies vaccines currently approved for use in goats, swine, or camelids in the U.S. In general, veterinarians can follow the label directions for cattle or sheep for administration route and dose in these species. The booster interval should always be no more than 1 year in off label species. Since the vaccines are not labeled in these species, the Colorado Department of Agriculture, the Colorado Department of Public Health and Environment, and/or local health officers may still treat vaccinated goats, swine, and camelids as non-vaccinated animals, which may result in quarantine or euthanasia if exposed to rabies.

Rabies vaccination is an important step in minimizing the risk of transmission of rabies from your animals to humans. Before initiating a vaccination program, owners should discuss the pros and cons with their veterinarian. Further information can be obtained from the Compendium of Animal Rabies Prevention and Control at the CDC Rabies web site (<http://www.cdc.gov/rabies/>, Resources, Publications).

### **RABIES TRANSMISSION**

Rabies is transmitted by direct contact with an infected animal. The rabies virus enters the body through a bite or scratch from an infected animal. The virus travels through the nerves to the central nervous system and brain. Once in the central nervous system, the virus causes inflammation and death of the nervous tissue resulting in neurological signs. Eventually the virus migrates to the salivary glands and is secreted in the saliva, allowing for transmission to another animal. Signs of rabies are due to the damage the virus causes in the brain and spinal cord.

### **CLINICAL SIGNS ASSOCIATED WITH RABIES**

- Nervous or agitated
- Hypersalivation, difficulty swallowing
- Dysphagia – inability to eat or swallow
- Abnormal vocalizations
- Lameness – single or multiple limbs
- Lethargy, Weakness, or Depression
- Ascending paralysis normally beginning in the hind limbs
- Signs of colic
- Blindness
- Sensitivity to light
- Vicious, unprovoked attacks
- Roaming, separation from the herd
- Self-mutilation
- Unusual sexual activity

Animals can exhibit any combination of these or other neurological signs. The disease is typically progressive with a worsening of signs over a period of 10 days or less. If not euthanized, an infected animal will die of respiratory failure. Since the signs of rabies are nonspecific and mimic many other medical conditions, any animal showing suspicious behavior or other neurological signs should be isolated so that they may be observed carefully.

### **PREVENT EXPOSURE**

To lower the risk of exposure to rabies for you and your animals, the Health Department recommends the following:

- Do not feed, touch or handle wild animals and be cautious of stray dogs and cats.
- Teach children not to touch either live or dead wildlife (including bats) and to tell you when they have been bitten or scratched by a pet.
- Call the Larimer Humane Emergency Animal Control line at 970-226-3647, Ext. 7, if you see a potentially rabid animal or have a pet that may have been exposed.
- Contact your veterinarian without delay if you suspect direct contact between your pet or livestock and a potentially rabid animal. Contact your veterinarian if you observe suspicious neurological signs in any of your animals.
- Call your doctor or visit an emergency room immediately if you are bitten or scratched by an animal that seems sick or threatening.



For more information, please contact your veterinarian or the CSU Veterinary Teaching Hospital at 970-297-5000.