

VESICULAR STOMATITIS OUTBREAK IN COLORADO

by Drs Frank Garry and Ragan Adams, CSU-VTH

The hot discussion topic of the spring and early summer was rainfall, but by midsummer concern had turned to "VS", "vesicular stomatitis", or "the outbreak". While some of the immediate worry has subsided, we will focus on VS in our first newsletter to make sure that you have received accurate and thorough information. Nothing stirs the rumor mill more effectively than the lack of information.

** As of mid-September, 1995 there were 49 currently positive premises affected in Colorado. The Grand Junction area was still experiencing spread and case escalation. The outbreak began in New Mexico in late May and has since spread to Arizona, Texas, Colorado, and Utah. Affected animals have included horses, cattle, and a llama. This disease is under the regulatory jurisdiction of the Federal Government via the USDA.

** The cause of Vesicular Stomatitis is a virus in the Rhabdoviridae family. Two serotypes occur in the US, only the New Jersey serotype is identified with this outbreak. Cattle, horses, swine, sheep, goats, camelidae, humans and some wildlife are susceptible. One to 100% of the animals in a herd can be affected, but death rarely occurs.

** In animals the infection begins with a short, often undetected fever. The obvious clinical signs are secondary to lesions, which include vesicles and subsequent ulcers that form in the mouth, on the teats and around the hooves. Thus, salivation, decreased feed intake and milk production, secondary mastitis, and lameness are seen. In humans skin lesions are uncommon, with fever and influenza-like symptoms the most distinct signs. Treatment for humans and animals is symptomatic and recovery is usually complete in 1-5 weeks.

** The mode of transmission is not clear but evidence is most convincing for insect vectors and direct contact with lesions. Plants may also play a role in transmission.

** VS is endemic but very infrequent in the southeastern US. It is endemic in Mexico, Central America and South America. Outbreaks in the western US tend to occur about every 10-15 years. These outbreaks begin in the southwest and move north, usually subsiding after heavy frost.

** Despite the development of a vaccine, the most effective mode of prevention is strict quarantine, animal movement restriction, and aggressive vector control. Although Federal and State veterinarians are in control of enforceable regulations, stricter methods of control may be instituted on private farms or at animal gatherings by owners and organizers.

** Vaccination is believed to reduce the severity and duration of clinical signs, but no studies have been performed to evaluate how effectively the vaccine prevents disease. It is worth noting that naturally infected animals can become clinically reinfected within

weeks. Tests on the currently marketed vaccine have evaluated safety and purity of the product. Vaccination results in positive blood titers which are indistinguishable from results in clinically infected animals. Thus, vaccinated livestock under consideration for sale or shipment to a non-VS state may be rejected. Vaccination is most frequently used on dairy farms in direct threat of infection.

** The greatest economic impact of a VS outbreak in a dairy is in the form of increased culling and decreased milk production. Studies of the 1982/1983 outbreak showed a loss of \$92 - \$253 per cow. In the 1985 outbreak 2 dairies in Colorado failed. Other impacts include trade restrictions and cancelled events.

** Without question the best method of prevention is avoiding exposure of your herd to other susceptible livestock, including species that do not commonly spread disease to cattle. For this reason gatherings of animals have been canceled in areas where no VS has been found. These cancellations should be considered to be in your best interest, and not the inconvenience they sometimes appear.