

Regulatory Efforts Against Vesicular Stomatitis

WHY IS THE FEDERAL GOVERNMENT INVOLVED IN THE VS OUTBREAK?

An outbreak of vesicular stomatitis can be a major economic problem in an affected herd. However, the reason for the federal government's interest in VS outbreaks is the resemblance of this disease to several even more severe diseases which are not believed to be present in the United States. Without expensive laboratory testing, the lesions of VS cannot be distinguished from those of Foot and Mouth Disease, Vesicular Exanthema or Swine Vesicular Disease. Outbreaks of these diseases in the US would lead to great economic devastation due to animal mortality and loss of export business. Thus, an outbreak of VS, which tends to occur every 10 or so years in the US, must be treated with concern in order not to miss entry of the more severe vesicular diseases, which are present in countries bordering the US.

WHAT IS THE FEDERAL GOVERNMENT DOING?

The federal government through the USDA is involved in several aspects of the VS outbreak:

INTERSTATE AND FOREIGN COUNTRY COMMUNICATION: Fact sheets on VS published by USDA were distributed within days of the first confirmed case in May 1995. Weekly fact sheets are sent by fax and e-mail to interested parties both nationally and internationally and a phone information line with daily updates has been established. For these numbers see insert, this page.

QUARANTINE ENFORCEMENT: Restriction of animal movement is

believed to be the most effective means to contain VS and is under the jurisdiction of Federal and State veterinarians. When an animal has lesions suggestive of VS, a Foreign Animal Disease Diagnostician (FADD) investigates and defines the individual as positive or not based on laboratory testing. Premises are quarantined for 30 days after the last lesion has healed on a positively identified animal. Restricted geographical zones and circles are designated areas in which positive cases have been identified. Within these areas movement of livestock within or out of state and gatherings of animals (auctions, competitions, exhibitions) are prohibited.

VACCINATION: The USDA licensed Grand Laboratories to produce an autogenous vaccination for this outbreak and market it in VS affected states. The vaccine has met certain requirements for safety and purity but there was insufficient time to test the vaccine for efficacy. Detailed record keeping is required to use the vaccine. It has been used primarily within the dairy industry in hopes of decreasing the severity of clinical signs and economic losses of infected animals. Use of the vaccine will vary with circumstances of each dairy. Some

drawbacks of the vaccine include debatable efficacy and positive blood titers resulting from vaccination that cannot be distinguished from those caused by natural infection.

RESEARCH: The USDA is conducting several studies on this VS outbreak which will provide better answers for questions arising from subsequent outbreaks: 1) Blood titers are being measured in vaccinated heifers to identify the time course and magnitude of seroconversion. 2) In a follow-up study of positive premises, potential virus vectors (plants, insects, rodents and birds) are being investigated. 3) Finally, a case/control questionnaire will be distributed to farms with and without infections in order to better define risk factors. If anyone is interested in participating in these studies, please contact Dr. Victoria Bridges at (970) 490-7822. Drs. Frank Garry and Ragan Adams, CSU-VTH.