VESICULAR STOMATITIS VIRUS (VSV)

Vesicular Stomatitis virus was found in South Dakota in late summer and early fall of 2015. Fifty premises were quarantined to aide in the control of the virus in a 7 county area in and around the Black Hills. Of these cases, eight involved bovine and were investigated as foreign animal diseases, while the other 42 involved only equine species.

Quarantines were kept in place until 14 days after the last animal began showing clinical signs of the disease. The last of these quarantines was released on November 20, 2015. The majority of animals affected by the virus recovered quickly and completely with little to no weight loss or other affects.

Eight states reported VS cases in 2015, beginning with New Mexico in late April. In all, 823 premises were quarantined in affected states, with the final one released in Colorado on March 4, 2016.

Vesicular Stomatitis is a viral disease which causes clinical signs similar to foreign animal diseases such as foot and mouth disease. These signs may be seen in horses, cattle, sheep and pigs as well as other cloven hoofed animals. Although how it spreads isn’t completely known, insect vectors, mechanical transmission and animal movement are all believed to be important factors. It is not known whether VS will be able to overwinter in South Dakota, but practitioners and producers should be aware of the signs of the disease as insects become more active with warmer weather.
TRICHOMONIASIS (TRICH) IN SOUTH DAKOTA

Seven South Dakota beef herds have been diagnosed with Trichomonas foetus infection since December, 2015. These herds were detected in Oglala Lakota (2), Dewey (2), Corson (2), and Gregory (1) counties. This is a significant increase in the detection of trich infected herds when compared to only 10 in the previous five years.

The trichomonad organism is a protozoan which is transmitted between cows and bulls during breeding activity. Once established in the female reproductive tract, an inflammatory reaction causes abortion of the early pregnancy. While these cows may eventually either clear the infection or potentially remain carrier animals, there is no treatment for infected bulls and they are most likely infected for life.

Producers are often unaware of the problem until the disease is well established in a herd. Signs that the disease may be present in a herd include high percentages of open cows or the presence of many late-calving cows. This may result from the early term abortions and subsequent rebreeding of the cows.

The first opportunity for a producer to consider that “trich” may be a problem in their herd could be when finding a higher than expected number of open cows during fall pregnancy checking. This typically occurs after cows are brought in from summer grazing.

The second opportunity for early detection of the disease is when cows do not have calves as expected each spring. Cows may have aborted calves after the bulls were removed from the herd and suddenly come up “open” in the spring. Non-calving open cows should be culled to feeding and slaughter channels as a good management practice.

Although chronically infected herds may have 50 percent or more of their cows open in the fall and spring, often the percentage is initially much lower and may be incorrectly attributed to other factors. A low pregnancy rate may be blamed on last summer’s poor bull performance, injured bulls, hot weather, poor cow condition or any number of other factors. If trich is not seriously and routinely considered as a differential, this could lead to the disease getting a 1-2 year head start in the herd as well as potential spread to other herds. Although it can be a financially devastating disease for producers, it seems to be one that is not readily thought of unless there is a history of the disease in the area or within the herd.

Because they may be unobservably infected, open cows and non-virgin bulls represent a risk for introduction of this disease to new herds. Any herd that adds non-virgin cows or bulls from an outside source or has commingling with another herd (either intentional or accidental) may be at some risk for trich infection. The South Dakota Animal Industry Board (SDAIB) notifies neighboring and contact herd owners of the affected herds in order to make them aware of the disease in the area.
RABIES

Rabies continues to be diagnosed in both domestic and wildlife species in South Dakota. Since January 1, 2015, a total of 30 animals have tested positive for rabies.

<table>
<thead>
<tr>
<th>Species</th>
<th># Positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bat</td>
<td>5</td>
</tr>
<tr>
<td>Bovine</td>
<td>6</td>
</tr>
<tr>
<td>Canine</td>
<td>1</td>
</tr>
<tr>
<td>Feline</td>
<td>4</td>
</tr>
<tr>
<td>Skunk</td>
<td>14</td>
</tr>
</tbody>
</table>

The National Association of State Public Health Veterinarians has updated the *Compendium of Animal Rabies Prevention and Control, 2016*. This document can be found at the following web address [http://www.nasphv.org/Documents/NASPHVRabiesCompendium.pdf](http://www.nasphv.org/Documents/NASPHVRabiesCompendium.pdf). Notable modifications include changes to the recommended management of dogs and cats exposed to rabies that are either unvaccinated or overdue for booster vaccination, reduction of the recommended 6-month quarantine for certain species exposed with no proof of vaccination, and updates to the list of marketed animal rabies vaccinations. Included in this newsletter is one flow diagram, based on the recommendations described in the compendium, for reference when dealing with rabies exposure situations. Contact the State Veterinarian’s Office regarding potential exposure cases so that we can ensure that recommendations are followed.

Veterinarians are encouraged to emphasize the importance of rabies vaccination to pet owners. While there is no state law requiring rabies vaccination for domestic animals in South Dakota, local municipalities may have requirements for rabies vaccination. Dogs and cats traveling from other states into South Dakota must be currently vaccinated for rabies.

DISEASE REPORTING

The SD Animal Industry Board (AIB) maintains a list of animal diseases that must be reported to the State Veterinarian’s Office. Veterinarians, lab diagnosticians and producers bear specific levels of reporting responsibility under the regulation. Diseases on the list pose a significant risk to economic, animal and/or human health in South Dakota and the United States.

To report a disease contact the AIB office at 605.773.3321

SD Reportable Disease List
Rabies Exposure Guidelines

DOMESTIC ANIMAL
Bitten or Scratched by rabies suspect

Veterinary Examination

Suspect animal test positive for rabies or not available for testing

Current rabies vaccination

- Booster and owner observe for 45 days
- Test if animal becomes ill or dies during observation

Non-current rabies vaccination with appropriate vaccination documentation

- Prospective Serological Monitoring - See NASPHV Protocol

History of rabies vaccination without appropriate vaccination documentation

- Immediate euthanasia
- Euthanasia Refused
  1. Vaccinate within 96 hours of exposure
  2. Strict quarantine/isolation
     a. 4 months for dogs & cats
     b. 6 months for ferrets

No rabies vaccination history

Testing Laboratories:
SDSU Animal Disease Research and Diagnostic Laboratory, Brookings, SD
605.688.5171 (8am to 5pm)
http://www.sdstate.edu/vs/adrdl/index.cfm
South Dakota Department of Health, Pierre, SD
800.592.1861 (8am to 5pm); 800.592.1861 (after business hours)
https://doh.sd.gov/lab/rabies.aspx

AIB Form RAB400 (Revised 03-16)