



## Blister Diseases Causing Trouble For Horses And Pigs

BY RUSS DALY  
SDSU Extension Veterinarian

"Doctor, there's a veterinarian on the line who wants to talk to you about some blisters he's seeing in a group of pigs."

That doesn't sound like a big deal, right? But if you are a regulatory veterinarian — tasked with protecting animal populations from incursions of serious diseases — this is a call you dread taking.

The reason for the anxiety has to do with the most feared of foreign animal diseases — Foot and Mouth Disease (FMD).

The U.S. has not seen FMD since 1929. It is among the most contagious diseases known to the animal world, affecting cloven-hoofed animal species. Were it to enter our livestock herds, it would devastate not just the livestock economy, but likely the entire U.S. economy as well.

When state and federal veterinarians have trouble sleeping at night, they're probably having a nightmare about FMD in their backyard.

The main effect of FMD infection is to cause blisters, or vesicles, in the mouth, tongue and on the coronary band (where the hoof meets the skin) of the animal.

Affected animals can't eat, drink or walk without pain. Often, by the time the animal is examined, the blisters have broken, leaving raw sores in the mouth and on the tongue.

Livestock veterinarians have these images burned into their brain from the day they hit vet school. Finding vesicles or sores in the mouth of a cow or pig sets off the alarm bells and results in a call to the state vet's office to rule out FMD. Of course, there can be many causes of these lesions, including the harmless situation when animals eat something they shouldn't have.

Vesicular Stomatitis & Seneca Valley Virus look like, but are not FMD.

This summer, we've seen the emergence of two infectious livestock diseases that create vesicles similar to FMD. They create problems for the affected animals, but they are not usually debilitating.

Perhaps the biggest problem with these diseases is that they can look just like FMD. When these diseases pop up, each one has to be treated like a foreign animal disease until FMD can be ruled out.

The first of these to show up in South Dakota this summer was Vesicular Stomatitis. Vesicular Stomatitis has mainly affected horses - which is helpful from a regulatory standpoint since horses don't get FMD - but can also affect cattle.

Vesicular Stomatitis pops up every year, but it's typically been a problem only in southwestern states. This year, it crept as far north as western South Dakota, affecting horses as well as some cattle.

The disease is caused by a virus spread by biting flies and gnats, so it dies out after a good freeze.

Affected farms are quarantined because animals can spread it directly between themselves, or via a person using contaminated tack or clothing.

Then there was the discovery of Seneca Valley Virus.

First noticed in show pigs and finisher pigs, Seneca Valley Virus has now been observed in breeding stock as well. We've had it here in South Dakota.

Affected pigs develop blisters on their snouts and feet. Accordingly, lameness has been a clinical feature of Seneca Valley Virus infection.

Unlike Vesicular Stomatitis, no one had an inkling Seneca Valley Virus was a potential pathogen.

It was an obscure virus found contaminating a lab culture back in 2002. Now it's emerged as a pathogen. We know very little about how it's transmitted between animals or farms, but we're learning more each day.

Seneca Valley Virus is yet another example of how some viruses previously considered rare and harmless can emerge to create restless nights for those of us trusted to protect animal health.

Viruses like these are the reason veterinary labs and universities need to stay up to date with the ability to detect and research these emerging pathogens.

Vesicular Stomatitis and Seneca Valley Virus aren't Foot and Mouth Disease, thank goodness. But danger still exists from their presence.

The worry is that animal owners and veterinarians might become complacent and ascribe these events to something harmless, not bothering to rule out FMD.

Foot and Mouth Disease remains a threat - it's prevalent worldwide and could be just a plane ride away. If it ever gets here, time is of the essence if there's any hope of containing it.

Even though the chances are slim, it's important enough that when animals show up with these signs, you should call your veterinarian right away.

Russ Daly is an SDSU Professor, SDSU Extension Veterinarian and State Public Health Veterinarian.

## Monarch

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In general, according to Penn State, an animal would have to consume approximately 2 percent of its body weight in milkweeds to experience ill effects, which may include death. For example, a 1,500-pound cow would have to consume 30 pounds of milkweed to become sick. Symptoms of milkweed toxicity include staggering, violent spasms, breathing difficulty and a rapid, weak pulse. Animals affected by milkweed toxicity should be seen by a veterinarian.

However, toxicity does vary per milkweed species, Stine said. Milkweeds in the South are very toxic. Those in the Yankton area, which mostly consists of Common Milkweed, are the least toxic. In most pasture systems in the Yankton area, livestock grazing is likely to be safe around a milkweed patch. However, Stine cautions against feeding hay made from pastures with large patches of milkweed, as the concentration in hay can be unpredictable.

While livestock tend to

steer clear of grazing the leaves and stems of the Common Milkweed, the flowers are rather palatable.

"Consider resting the pasture while the milkweed is in flower," Stine said.

## NOAA

# SD October Climate Outlook Looks Good For Harvest

BROOKINGS — Warmer than average temperatures are expected to continue through October 2015 in South Dakota, according to the latest climate outlook released by the National Oceanic and Atmospheric Administration's (NOAA) Climate Prediction Center this week.

"We still have not seen a hard freeze in most of the state, and it looks like it could be another week or two before we see a widespread freeze," says Laura Edwards, SDSU Extension Climate Field Specialist. "This has been a great year without worries of early frost in crops and gardens and pleasant for outdoor activities."

With the dry conditions over the last four to six weeks in the western and northern counties, Edwards added that current conditions also reduced the risk of saturated soils and moist grain during this year's harvest season.

Dennis Today, South Dakota State Climatologist & SDSU Extension Climate Specialist added, "Very warm September temperatures helped round out the growing season for crops and led to sufficient maturing and drying of soybeans and corn and other fall harvested crops in the field," he said.

Preliminary data show that nearly 50 stations ranked September 2015 among the top 10 warmest on record with five locations ranking Sept. 2015 as the warmest including; Lead,

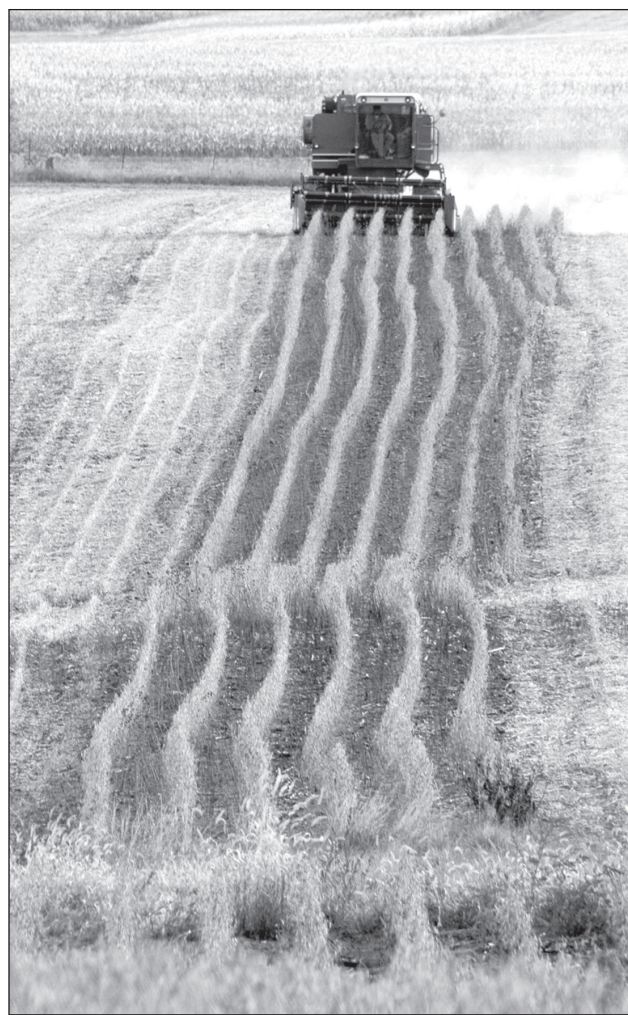


PHOTO: METRO GRAPHICS

Lemmon, Pollock, Timber Lake and Waubay.

Today said these stations ranged 5 to 8 degrees above average for the month. "The rest of the state was very warm, also, though not ranking quite as high," he said. Throughout the month

of September, Today said precipitation was highly variable.

"Four locations in the south central to southeast regions of the state were in the top 10 wettest, with some single day totals of more than 4-inches in late

September. At the same time, in southwest and northeast areas of the state, 13 locations ranked this September among the 10 driest. Many locations received less than half an inch of rain in the month," Today said.

### CLIMATE PREDICTION GOOD FOR HARVEST

Edwards said the predicted outlook looks to be continued good news for fall harvest and outdoor activities.

"Warmer than average conditions are favored statewide in the month ahead, and there is some potential for drier than average conditions in the far eastern part of the state," Edwards said.

Warmer than average temperatures are expected to prevail over the state in the next couple of weeks. As far as precipitation goes, Edwards said most of South Dakota has equal chances of above, below or near normal precipitation is expected in the month ahead; with a small area along the Minnesota border, leaning towards drier conditions in the climate forecast.

She added that one potential negative impact of the late summer and early fall season could be dry soil conditions for winter wheat planting. "Late September rains reduced some dryness concerns. There remains some time for rainfall and germination, with some chances of rainfall in the next week or so in locations that still are in need of some precipitation," she said.

## Remember These 13 Tips To Keep Farmers Safe During Harvest Season

DES MOINES, Iowa — The agriculture sector ranks among the most dangerous in the nation with more than 500 deaths recorded in 2014 and a fatality rate of more than 24 deaths per 100,000 workers, according to the most recent data from the Bureau of Labor Statistics.

"With harvest season here, we all need to remember how quickly farm accidents can occur," said Jeff Reints, farmer in Shell Rock, Iowa. "When you're working long hours in the fields, you get tired; and it's easy to overlook hazards like electrical equipment and power lines. It's important to slow down, be alert and use extra caution out there."

In observance of National Farm Safety and Health Week (Sept. 20-26), MidAmerican Energy Company encourages all workers in the agriculture industry to focus on safety this harvest season. Here are 13 tips to help farmers stay safe when working around electricity:

1. Be aware of overhead power lines, particularly when moving equipment. People and equipment should remain at least 10 feet away from power lines.
2. Know the height of equipment; cultivators and planters, for instance, may be taller in the fold-up position

than they are during field use. Lower augers to transport level when moving even a short distance, and always make sure the auger system has a good ground connection.

3. Never attempt to raise or move a power line. If you need assistance with power lines, call MidAmerican Energy at 800-799-4443.

4. Watch for guy wires, which support utility poles. Although they are not energized, damaging a guy wire can bring down live power lines.

5. Do not erect fence wire along the same route as overhead lines, and do not string fence wire where it may come into contact with an overhead line.

6. If a tractor you are operating comes into contact with a power line, remain seated until help arrives. If there is danger of fire, jump as far away from the tractor as possible and keep your feet together when you land. Do not allow any part of your body to touch the equipment and the ground at the same time. Do not attempt to touch or get back on the equipment after dismounting - this is when many injuries occur.

7. All electrical outlets used on the farm should be three-hole, grounded outlets with faceplates. A certified electrician should be hired to perform all electrical work.

8. Ground the entire electrical system, and protect ground wires and rods from damage.

9. Install a lock-out switch that can turn off all electricity from one area. This will be vital in the event of an emergency or in need of repair.

10. If there are any doubts about the condition of the electrical circuits, wiring or equipment on the farm, have a licensed electrician inspect them.

11. If it is necessary to enter a grain bin, shut off and lock out electricity before entering. Use a safety harness and safety line, and have people available outside the bin in case of emergency.

12. Know the National Electric Safety Code requirements for horizontal clearance between the side of the grain bin and adjacent power line and the vertical clearance above the bin to the nearest line. Contact your electrician to learn more about NESC.

13. Contact MidAmerican Energy before constructing or remodeling a grain bin to ensure the electrical transformer is of adequate size.

If farm equipment comes in contact with a utility line or other piece of electrical equipment, call MidAmerican Energy immediately at 800-799-4443. Visit the company's website for more information on electrical safety.

## Applications For Donated CRP Management Hay Sought

PIERRE — The South Dakota Department of Agriculture (SDDA) is accepting applications for donated 2015 CRP mid-term management hay bales.

USDA-FSA is allowing producers with CRP mid-term management hay to donate the baled residue to SDDA, rather than destroy it. All producers needing

hay for feed in South Dakota may apply. Submitting an application does not guarantee distribution of hay to your operation.

"We appreciate the South Dakota FSA office working with us to send these bales to producers in need," said S.D. Secretary of Agriculture Lucas Lentsch.

SDDA will coordinate

the donation effort. The recipient is responsible for expenses and arrangements associated with transporting the donated hay. Extra precautions may need to be exercised as movability of the hay is limited.

Producers receiving hay will be selected by SDDA based on the number of applications received, need and

the amount of hay available.

Applications for the program can be found at <http://sdda.sd.gov/documents/farming-ranching-agribusiness/2015.crp.hay.donation.pdf>. Applications must be received by 5 p.m. CDT on Friday, Oct. 9. For questions on eligibility and conditions, contact Jodi Bechard at 605-773-5711.



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