



STATE OF WASHINGTON

DEPARTMENT OF AGRICULTURE

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Malignant Catarrhal Fever (MCF)

The purpose of this communication is to remind state and county fair management to keep Malignant Catarrhal Fever (MCF) in mind when planning for 2019 exhibitions. Some of you may remember the cases associated with the 2008 State Fair: the first cow showed signs of illness 43 days after the Puyallup fair and the last case was noticed 139 after the fair. The entire outbreak consisted of 19 confirmed cases of MCF and 5 presumed cases. All affected animals died.

As a review, MCF is a rare but serious disease of cattle, deer, and bison; it can also affect pigs. It is caused by several strains of a herpes virus. The strains of most concern at fairs are carried and shed by sheep and goats, especially those between two and six months of age. Although the virus causes no problems in sheep or goats, it can be devastating to other species, particularly bison and cattle. Bison are extremely vulnerable to MCF viruses—significant death losses can occur in bison herds when the source of infection is 2.5 miles or more away!

MCF ravages affected animals. It can cause sudden death with few prior signs of illness, or animals can linger with a variety of ailments for days or weeks before dying. Typical signs include high fever, poor appetite, depression, diarrhea, watery to pus-filled eye and nose discharge, drooling, difficulty breathing, mouth ulcers, swollen joints, sloughed hooves, skin scabs, crusty nose, muscle tremors, incoordination, jerky eye movements, and/or seizures. One of the most characteristic signs of MCF is white or blue discoloration of the cornea starting from the edge and progressing inward. The majority of affected animals die, but a few can recover; others become chronically infected. There is neither a treatment nor vaccine for this disease.

Animals ill with MCF are “dead end hosts” and do not spread the disease to herdmates. However, herdmates are at risk if they are exposed to the same source of infection. MCF is not a human health concern. Besides the devastation it can cause cattle, MCF is a concern because it can look like several foreign animal diseases of concern (rinderpest and foot and mouth disease) and other more common domestic diseases (bluetongue and bovine viral diarrhea). It is a reportable disease and diagnosis involves laboratory testing. Be sure to contact a veterinarian immediately if any cattle at a fair have high fevers and/or ulcers or blisters in their mouths or the tissues around their hooves.

Recommendations to Reduce the Risk of MCF at Fairs

- House sheep and goats separately from cattle.
- Separate the time between cattle and sheep or goat exhibits; show cattle before sheep and goats if a show will last several days.
- People visiting livestock should wash hands or use hand sanitizers and footbaths to minimize potential cross-contamination between shedding species and susceptible species.
- Exhibitors should not exchange clothing, footwear, or equipment (grooming, feeding, or manure handling) with other exhibitors.
- Exhibitors should not transport sheep/goats and cattle in the same trailers.
- Equipment and facilities such as stalls, brushes, clippers, and wash stalls should not be shared between species (preferably not between animals, either).
- Consider ventilation and prevailing wind patterns: house cattle upwind of sheep and goats and make sure ventilation fans do not discharge air from sheep and goat barns toward cattle barns.
- Thoroughly clean and disinfect facilities before and after all livestock exhibitions.

Be firm and enforce these biosecurity recommendations. Since the 2008 outbreak, the only additional case of MCF occurred in 2010 when a fair bowed to public pressure and allowed sheep and cattle to be shown together at a fair. *MCF is always a risk*, so measures to prevent the disease are strongly recommended to all fairs and its management.

For More Information

Washington Animal Disease Diagnostic Laboratory MCF testing information
<https://waddl.vetmed.wsu.edu/animal-disease-faq/mcf-diagnosis>

Washington State University College of Veterinary Medicine MCF page
<http://vmp.vetmed.wsu.edu/research/malignant-catarrhal-fever/overview>

Washington State University Veterinary Medicine Extension MCF article
<https://s3.wp.wsu.edu/uploads/sites/2147/2015/03/MCF-NOV-2008.pdf>

Center for Food Safety and Public Health, Iowa State University College of Veterinary Medicine MCF page
http://www.cfsph.iastate.edu/Factsheets/pdfs/malignant_catarrhal_fever.pdf

USDA APHIS MCF Questions and Answers
https://www.aphis.usda.gov/publications/animal_health/content/printable_version/faq_mcf_.pdf

Veterinary Journal Article about the 2008 Puyallup State Fair MCF Outbreak
<https://pubag.nal.usda.gov/pubag/downloadPDF.xhtml?id=48873&content=PDF>