

Preventing EPM

Two ways to reduce your horse's risk of contracting equine protozoal myeloencephalitis, or EPM.

By Heather Smith Thomas

10-17-2003

Since equine protozoal myeloencephalitis (EPM) can leave a horse neurologically damaged in spite of treatment, conscientious horsemen seek ways to prevent this devastating disease. There are 2 ways to protect a horse—with vaccination, and limiting exposure to the protozoa (*Sarcocystis neurona*) by keeping feed and water from being contaminated by opossum feces.

THE VACCINE - Fort Dodge Animal Health received conditional license approval for their EPM vaccine in December 2000, and has been conducting further studies to determine effectiveness of the vaccine and to alleviate questions and concerns, making progress toward fulfilling the requirements for a full license. There is now evidence that the EPM vaccine will stimulate a mediated cell response against the protozoa, according to work done at the University of Missouri.

Rob Keene, DVM (who works at Fort Dodge Animal Health) says Fort Dodge is also working with Ohio State University to develop a challenge model, to reproduce EPM in the laboratory so the vaccine can be tested more fully. A field performance study is being done at Texas A&M and the University of Florida, using cases from eight additional veterinary teaching hospitals and 3 private practices.

Keene says the main thing in the decision about whether or not to vaccinate your horse is risk factors. "If you live in an area where opossums are in abundance, or use feeds that are not heat-treated or that might be contaminated with opossum feces, your horses are at risk. Stress seems to be involved in precipitating the disease. Horses engaged in stressful careers, heavy training, being frequently transported or subjected to any other kinds of stress could benefit from vaccination," he says.

"Before a horse becomes exposed to risk factors, it should be vaccinated. A 2 dose series 3 to 6 weeks apart, followed by an annual booster, seems to protect most horses. If you are in a situation where you can't control exposure to opossums, however, some folks are thinking about twice a year vaccination, but this has not been established as a recommendation," says Keene. "If a horse has been treated for EPM and recovered, many of the universities are suggesting that the horse be vaccinated, along with any other horses in that group. If you have one horse on the farm that has EPM, the risk is there for others."

MINIMIZE EXPOSURE - Efforts should be made to keep opossums away from horses, horse feeds, and water sources. "The University of Florida has successfully set up opossum-proof facilities. And Ohio State uses electric fences to keep opossums from getting into pastures. It's expensive, but you can fence them out of paddocks and pastures," says Keene.

To protect feeds, use covered containers for grain, pellets and supplements, and a fence around haystacks that no opossum can get through (small mesh netting). Be careful about purchased feed; always use heat-treated grains and pellets.

"Just because it's in a pellet doesn't mean it's safe. It may not have been heated enough. Contact the feed manufacturer, to find out. Feed must be heated to at least 156 degrees Fahrenheit in order to kill the protozoa," Keene says. "A recent paper by Dr. William Saville (Ohio State University) on various disinfectants that might be helpful around the barn indicated that there's not much that is effective against the EPM organism except steam cleaning. Heat is the best plan for disinfecting premises."

Treatments are available. Ask your veterinarian.

Heather Smith Thomas is a rancher and freelance writer based in Salmon, Idaho.