



# MARYLAND COOPERATIVE EXTENSION

UNIVERSITY OF MARYLAND / COLLEGE PARK • EASTERN SHORE

Dr. Amy Burk • 301-405-8337 • amyburk@umd.edu  
Erin Petersen • 301-405-4690 • petersdr@umd.edu

## NOVEMBER EXTENSION HAPPENINGS CALL THE EXTENSION OFFICE TO REGISTER

- **Nov. 3-5 – Eastern National 4-H Horse Roundup**, Lexington, Kentucky. Several Maryland 4-H individuals and teams will be competing in events such as Public Speaking, Horse Bowl, Hippology, Judging and more.
- **Nov. 10 and 20, 9:00 a.m. - 4:30 p.m.: Farmer Training Nutrient Management Certification** – Pasture-Based Operations, Wye Research and Education Center, 124 Wye Narrows Dr., Queenstown. For more information, contact the Maryland Department of Agriculture at 410-841-5353.
- **Nov. 17-19 – Maryland 4-H Volunteer Forum**, Ocean City. A training opportunity for Maryland 4-H Volunteers. For more information, contact Cheryl Hill at 410-386-2760.
- **Nov. 18 – Second Annual University of Maryland Horse Conference**, Anne Arundel Community College. The keynote speaker is Don Blazer, noted author, trainer and teacher. Other topics include Health and Nutrition, Equine Business, and Pasture Management. Registration is *required* – \$30 for adults, \$20 for youth signing up before Nov. 4 (add \$10 to each late registration). Call Kristen Wilson at 301-405-1392 for registration information. <http://www.equinestudies.umd.edu/Extension/horseconference2006.html>

## ASK THE EXPERTS

**Q** A horse owner I know makes hay, and a veterinarian who was treating a horse for EPM on site suggested that the owner should destroy his hay crop since an opossum was found in the barn. Is this necessary?

**A** I think that destroying the entire hay crop might be a little bit excessive. Equine Protozoal Myeloencephalitis (EPM) is a disease caused by a protozoan parasite called *Sarcosystis neurona*. This parasite infects the spinal cords and brains of horses that are dead-end hosts of the parasite, which means that they can't pass the disease on to other horses OR to the parasite's natural host, the opossum.

*S. neurona* also has what are known as intermediate hosts, including raccoons and skunks, which become exposed to the parasite through opossum feces. Opossums scavenge these animals and, in the process, eat the parasites that are encysted within the muscle tissues, thereby becoming infected. It was once thought that cats were also potential

intermediate hosts, but recent studies suggest that while it may be possible, it is improbable. Horses can pick up the parasite in the same way the intermediate hosts do: through exposure to opossum feces. The most at-risk horse populations are the very young and the very old, though horses of any age can develop clinical signs associated with EPM. While it has not been proven, there are suggestions that some horse breeds may be more prone to EPM than others. This is based on evidence that certain mouse populations show a genetic predisposition to developing EPM.

All of this information relates to your original question because it has to do with prevention and control of the disease. Because opossum feces carry the *S. neurona* parasite, any feed that has been contaminated with feces should not be fed to horses; however, it is doubtful that the entire hay crop is at risk. Opossums are omnivorous and will eat anything from insects, snails, and berries to rodents and road kill. Keep your barn and feed storage area CLEAN; don't make it a haven for opossums or the intermediate hosts, raccoons and skunks. Clean up spilled grain, because this is a major draw for rodents and insects as well as the opossum itself. If you find a dead raccoon or skunk near your barn, bury it – this goes for road kill, too! Having a barn cat or two can help keep rodent populations down. Cats are also known predators of opossums.

You can also manage opossums through habitat control. They can live anywhere; however, they prefer areas near wetlands or streams. They will live in abandoned burrows, under brush piles, in hollowed trees or under your deck. Keep your property clear of enticing opossum homes: Cut back overgrown shrubs, trim trees that overhang barns so that branches are at least five feet away from the roof. If you have fruit trees, remove fallen fruit on a regular basis, stack firewood tightly, and make sure that all garbage cans have tightly fitting lids. Screen out access to your deck, crawlspace and vegetable gardens. If all else fails, opossums are not known for their intelligence – they are extremely easy to trap and remove!

Finally, Fort Dodge does have an EPM vaccine available on a conditionally licensed basis. You can check with your veterinarian about giving the vaccine to your horses. However, you should be aware that it does cause the cerebrospinal fluid to test positive for EPM when the horse isn't actually infected. This means that if your horse has been vaccinated for EPM (or exposed, but never got sick) and subsequently develops clinical neurological signs, it will be impossible for your veterinarian to rule out EPM as the cause. The current favored treatment for EPM is a 28-day regimen with the antiprotozoal drug Marquis®, made by Bayer.

Erin Petersen, MS, PAS  
Extension Horse Specialist

*This column is sponsored by the University of Maryland. The views expressed herein are those of the author and are not necessarily those of The Equiery's publisher or staff.*