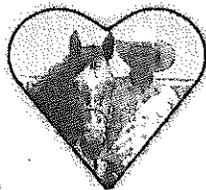


Hey Neighbor



## For The Love Of Horses

By Frank J. Buchman

### Opossums transmit EPM, a neurological disease of horses

As winter arrives and varmints move into the barnyard for food and protection, a warning has been issued about the disease opossums can bring with them.

The ugly rat-like menaces expose over one-half of all horses to EPM, a disease affecting the nervous system.

Fortunately, only a small number of horses, about 0.14 percent, develop the disease.

"Equine protozoal myeloencephalitis (EPM) is a common neurological disease in horses, and left untreated can cause death or permanent disability," according to Dr. Kenton Morgan, technical service veterinarian for Bayer Animal Health at Shawnee.

"Since EPM is a disease of the central nervous sys-

tem, it can affect multiple locations within the spinal cord and brain, with the signs and severity varying dramatically," Morgan explained.

It is more common for the disease to be associated with the spinal cord, but can also affect the brain.

Horses are often incoordinated, being worse on one side than another, and the muscle size may decrease. Muscle weakness is common, and horses may display abnormal gait, lameness and loss of sensation along the face, neck or body.

Paralysis of the muscles of the eyes, face or mouth may occur, as evidenced by drooping eyes, ears or lips. Horses may also demonstrate a head tilt, poor balance and difficulty in swallowing or vocalizing.

Seizures and collapse can occur.

"This disease may progress rapidly or very slow," Morgan said. "Horses generally deteriorate over time, but some animals plateau for a time and then worsen days, weeks or months later."

Most horses afflicted with EPM continue to have a bright temperament.

"Clinical signs can vary significantly, and no two horses with EPM will be exactly the same," Morgan stressed.

There is no single test that can be done which is always accurate, he said.

A neurological examination is essential for proper diagnosis. During the exam, the veterinarian will assess cranial nerve function, the ability of the horse to properly control all four limbs.

muscle tone, strength, sensation and coordination.

Diagnostic examinations can also include radiographs of the neck region, blood work and a spinal tap.

Neurological problems like wobblers, viral diseases such as herpes, West Nile and sleeping sickness, injuries and tumors, along with others, need to be ruled out.

"EPM is caused by a single-celled protozoa that is not transferred from horse to horse, but rather spread by the opossum," Morgan said.

Intermediate hosts such as cats, raccoons, skunks and armadillos carry the protozoa, and the opossum picks it up by feeding on the dead carcasses of these animals.

The organism goes through a maturation process within the opossum and eventually a sporocyst is produced which is passed in the feces. The horse then picks up this infective sporocyst through eating contaminated feed, pastures or drinking water.

Once ingested, the sporocyst goes through another maturation process and gains access to the brain and spinal cord of the, Morgan said.

There are three FDA approved treatments for EPM.

Marquis and Navigator are both paste products given daily for 28 days. Rebalance is a liquid sulfadiazine, pyrimethamine combination that is to be given daily for three to nine months.

"All medications should be prescribed by a veterinarian," Morgan said.

"Marquis has been on the market since 2001 and has demonstrated a good safety record. Navigator and Rebalance have specific label warnings and precautions. Attention must be given to proper dosing and close observation for any adverse side effects," he added.

With any of these treat-

ments, you can expect about 60 to 70 percent success rate.

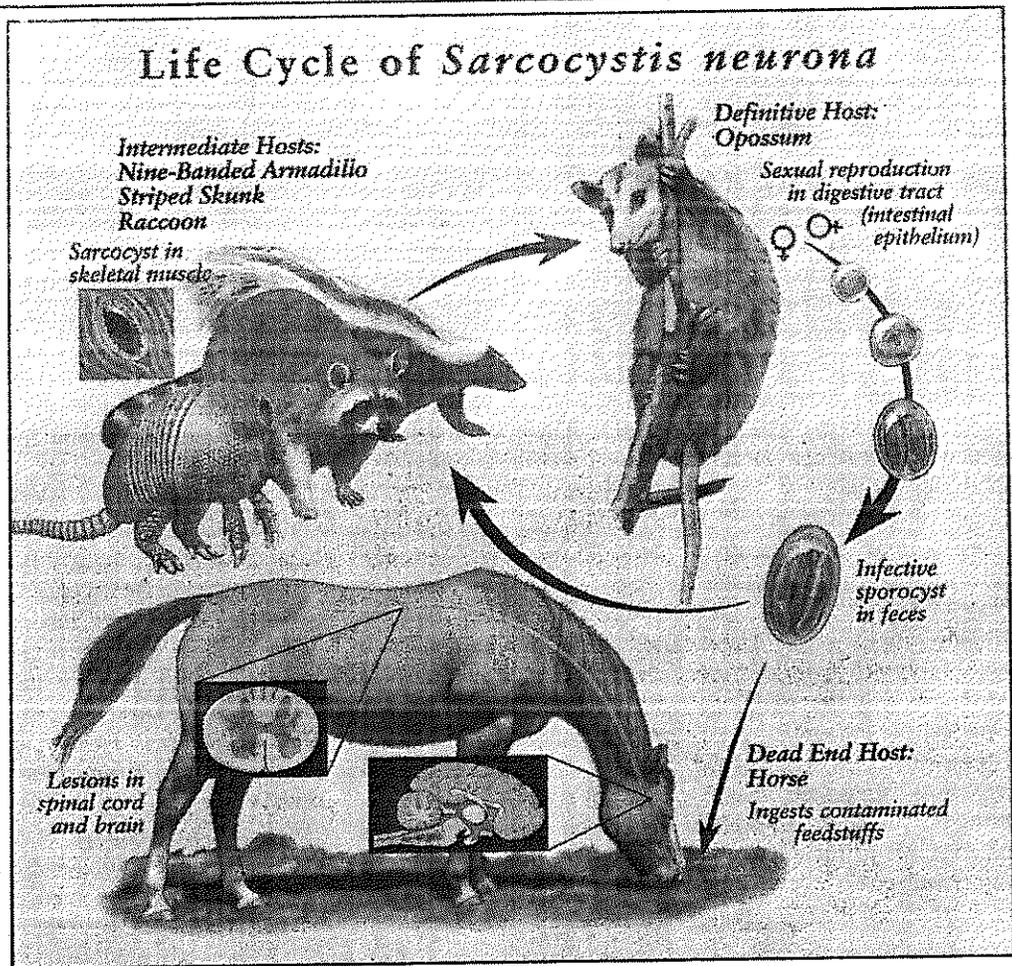
"EPM is a serious disease and not all horses will respond. Of the horses which do respond favorably, most, but not all will return to normal activity and competition. Owners need to understand that," Morgan said.

The earlier EPM is diagnosed and treated, the better are the chances for success.

"The best way to treat EPM is to prevent it," he emphasized.

Keep grain storage, feed areas and water sources

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Life cycle of the protozoa *Sarcocystis neurona* is complex and includes both definitive and intermediate hosts. The organism is passed through the host opossum, and horses pick it up in feed or water.

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clean and hay covered, so opossums are less likely to be attracted to the areas, he recommended. Horses should not be fed on the ground.

Carcasses of skunks, cats and raccoons must be removed and buried immediately. When opossums are present, they need to be controlled by trapping or other means of elimination.

There is a conditionally licensed EPM preventive vaccine on the market, and studies are continuing.

