



Vaccinate Horses Against Mosquito-borne Viruses

Protect horses during the summer from diseases spread by insects.

July 13, 2010

Courtesy Sue Ellis, Bugwood.org

Protect your horse against mosquito-borne diseases by ensuring it receives an annual vaccination.

If you're well-equipped with natural mosquito repellent and citronella candles to keep pesky mosquitoes at bay, you may want to turn a kind eye to your horse friends, as well. In areas of the country where summer equals hot, humid weather, horses are at risk for contracting mosquito-borne diseases such as West Nile virus and eastern and western equine encephalomyelitis.

"Vaccination is key to prevention of diseases like EEE, WEE and West Nile," says James Maclachlan, professor of pathology at UC Davis' School of Veterinary Medicine. "Mosquito control is frequently difficult. Most of the mosquito-transmitted viruses are not contagious between horses, rather they are exclusively transmitted by insect bite."

While there have been few reported cases of WEE in recent years, EEE and WNV remain major concerns, and horses should receive annual vaccinations for all three, Maclachlan says. Horses that contract one of these diseases may show signs of neurological problems, though the symptoms vary and can progress severely in the affected animal.

Neurological symptoms include:

- ataxia (incoordination)
- gait abnormalities
- muscle fasciculations (spasm/twitching)
- depression
- personality changes
- teeth grinding
- head pressing
- blindness
- convulsions
- coma

There is also a risk of death among animals that contract these diseases, says Maclachlan. The mortality rate among horses that suffer from EEE is high (about 50 to 90 percent), while those suffering from WEE is lower (0 to 40 percent). Only about 10 percent of horses that contract WNV actually exhibit symptoms, but of that number there is a mortality rate of about 35 percent.

Once a horse is infected with one of these mosquito-borne diseases, veterinarians can only treat the symptoms but not the disease itself. Make sure your horse receives an annual vaccination, and alert your veterinarian if you notice neurological symptoms in your horse.

"Mosquitoes are pretty much everywhere, but the diseases they transmit differ between regions," Maclachlan says. "EEE, for example, is a problem in the Northeast, upper Midwest and southeastern U.S. but not in the western U.S."

Horse owners should also stay aware of other insect-borne viruses that horses can contract, says Maclachlan. These include bunyavirus (transmitted through mosquitoes); Powassan virus (transmitted by ticks); African horse sickness, equine encephalosis, and vesicular stomatitis (transmitted by midges).

To find out what mosquito-borne diseases affect your area, visit the Center for Disease Control.