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Preventing Equine WNV

With spring only a few months away on Delmarva, health concerns for horses will soon arise—as sure a sign of the season as daffodils. Foals are born, pastures green up and mosquitoes hatch, just to mention a few rites of spring in horse country. Yet it is the pesky mosquito—that slender, delicate, blood-sucking pest—on which I take aim in this column. Specifically, I will discuss the West Nile Virus, a disease carried by some mosquitoes, and how inoculating a horse against WNV will protect the animal from this devastating, often deadly, disease. Let me explain.

West Nile Virus (WNV) can reside deep inside the female mosquito's salivary glands, which are connected to the her long, piercing proboscis. It is through this proboscis that she extracts a blood meal from a horse, leaving behind the virus. A member of the flavivirus family, WNV was not seen in horses in the United States prior to 1999; however, the disease was found in mosquitoes biting horses in Africa, Eastern Europe and western Asia. In just five short years, WNV has become entrenched in the States.

Mosquitoes get WNV from infected birds, which then pass it on to other birds and animals including humans and horses. Given the current level of study, there is no evidence that the infection can spread from horse to horse. In addition, there is no evidence to suggest people can become infected from handling horses that are infected with WNV. When a horse contracts the virus, its brain is attacked, thus destroying nerve cells and causing brain swelling. This is why WNV prevention should be at the top of your vaccination list.

One reason horses are vaccinated in spring is that the closer they are to the season of potential disease exposure, the greater the protection. In general, the WNV season here is August through October. I'll say more about timing the vaccination later in the column, but first let me make a case for the necessity of WNV inoculation in equines.

In 2003, the USDA reported 4,636 cases of equine WNV infection in the United States, a figure down from the previous year in which the USDA reported 15,257 cases nationwide. That is a astounding decrease in WNV horse disease in a one-year period. A major reason the incidence of equine WNV plummeted last year was vaccination. Along with increase in the number of vaccinated horses, educational awareness of the dangers of WNV infection occurred. Add to that the effective mosquito control programs that have minimized exposure of horses to mosquito bites. Working together, WNV awareness and mosquito control programs cooperated with vaccination practices to reduce the overall 2003 equine WNV incidence.

In case I still have not convinced you about the importance of equine vaccination, take a look at human WNV infection for 2002-2003. The Centers for Disease Control reported last year that 9,136 humans were infected with WNV, resulting in 228 deaths. Included in that 9,136 total were Delaware's 17 human cases with two deaths. Maryland reported 73 human cases with six deaths and Virginia reported 23 human cases resulting with one death. Human cases increased in 2003 from the CDC report of 4,156 cases in 2002.

In 2002 Delaware reported 1 human case, Maryland reported 36 human cases and Virginia reported 29 human cases. We can presume that humans had equal awareness of WNV dangers, and humans benefited from prevention measures taken by state agencies to control and reduce mosquito populations. While at this time there is no WNV vaccine for humans, you can protect your horses, mules and donkeys against WNV infection.

Now for timing the vaccination: For maximum benefit, the best time to give a horse its WNV vaccine is no more than 4 to 6 months from when the horse is expected to be at greatest risk. Since the highest WNV incidence in our area is August through October, I suggest you hold off on vaccinating until May or June. Involve your veterinarian in your equine WNV prevention and vaccinate your horses, mules, and donkeys this spring against WNV.