

EEE AND WNV (Re-visited)

In my last column I wrote about general management considerations for watering our horses including what we need to understand about water and our horses to insure appropriate daily water intake. I promised this column to continue that conversation highlighting water as a defense medication against poor health in our horses. I planned to cover heat stroke, heat exhaustion, dehydration and other problems prevented and/or treated by water.

I must break that promise for what I believe to be a pressing issue. The urgent topic I am referring to is West Nile Virus Encephalitis (WNV) and Eastern Equine Encephalitis (EEE). There are two compelling facts that encourage me to write again concerning WNV and EEE. The first initiated through a phone conversation I had with Dr. Wes Towers, Delaware State Veterinarian. The second initiated through a phone conversation with an owner of more than 40 horses.

Dr. Towers confirmed we have positive identification of both WNV and EEE positive mosquito's; Virginia is reporting 4 cases of WNV infection in horses; and Pennsylvania is reporting one human case of WNV infection so far this summer. There are a total of 182 WNV equine cases reported for 2004 in the United States as of the writing in this article.

One note about the United State case reported numbers. It is still somewhat accurate to report nationwide West Nile numbers in that there continues to be a nationwide coordinated effort against WNV. EEE however is totally a state by state reported disease. As I said earlier, we know we have EEE virus in our area this summer, we have not reported any EEE cases to date. Florida has reported 18 equine cases of EEE so far in 2004. EEE is considered by the US department of Agriculture as an emerging disease, a sure confirmation that vaccination is essential. The second phone call I must comment upon concerns false information held by a horse owner. This person has over 40 horses and has yet to vaccinate one of her horses against WNV. Her reasoning is rooted in a rumor she and many others have heard concerning the safety of WNV vaccination.

EEE and WNV belong to different virus families. Both cause encephalitis or inflammation of the brain in horses and humans. Both are mosquito transmitted from birds to horses and humans, (EEE transmission can involve small mammals and additional vectors like ticks). Both EEE and WNV have effective vaccines to prevent the brain infection. EEE is less common than WNV, but more deadly upon infection. For both EEE and WNV prevention, routine vaccination, rather than mosquito control is needed to optimum protection against the encephalitis's.

A word about the vaccines. Both EEE and WNV vaccines are safe for your horse. I have personally researched the WNV gossip, those being website claims of WNV vaccination danger to horses. I have yet been able to document a bona fide case where the WNV vaccine has caused birth defects, increased abortion threat, or negative performance effects to a horse or foal. My conclusion: WNV vaccine is safe! EEE and WNV vaccinations are not cross protective, therefore your horse requires both. At this late date, effective vaccination to protect your horse is difficult; but your horse should still be vaccinated for both WNV and EEE. There are currently two fully approved West Nile virus vaccines available for horses. Each requires an initial series of at least two vaccinations, followed by periodic “booster” injections. There are several vaccines available for horses to protect against EEE. Again, all require an initial series of at least two vaccinations, followed by periodic “booster” injections. I recommend that all horse owners keep their horses properly vaccinated at all times against both WNV and EEE. I suggest that you consult with your personal veterinarian regarding which vaccine is most appropriate for your particular horses and how often you should administer booster vaccinations.

Vaccination is our best protection for our horses against EEE and WNV, mosquito control is helpful. Let me outline some mosquito control measures to protect your horses. If you have failed to vaccinate your horses to date, these measures are essential. Because different mosquito species have different feeding preferences, specific stabling recommendations are difficult to make. We know for many mosquito species that peak periods of mosquito activity occur at dusk and dawn. This corresponds to data that horses stabled at night are less frequently affected by the viruses, so night time stabling maybe helpful. Also, insect repellent approved for horses can be used (always follow label instructions), but insect repellent cannot be relied upon as the sole control method.

Below are some additional steps to follow to prevent mosquito contact with your horses:

- Avoid turning on lights inside the stable during the evening and overnight. Mosquitoes are attracted to lights.
- Use of insect protective coverings (sheets) on your horse.
- Screen your stall doors and windows.
- Place incandescent bulbs around the perimeter of the stable to attract mosquitoes away from the horses. Black lights do not attract mosquitoes well.
- Remove all birds, including chickens, that are in or close to the stable. Eliminate areas where birds might roost around horse housing.
- Look around the property periodically for dead birds, such as crows. Any dead birds should be reported to the local health department. Use rubber gloves to handle dead birds or use an implement, such as a shovel.
- Eliminate areas of standing water on your property. Shallow standing water, used tires, manure storage pits, and drainage areas with stagnant water are ideal mosquito breeding places.
- Use fans on the horses while in the stable to help deter mosquitoes.
- Fog stable premises with a pesticide in the evening to reduce mosquitoes. Read directions carefully before using.

You can reduce the number of mosquitoes around your home and neighborhood by reducing the amount of standing water available for mosquito breeding. Here are some simple steps you can take.

- Dispose of tin cans, plastic containers, ceramic pots, or similar water-holding containers on your property.
- Pay special attention to discarded tires. That is where lots of mosquitoes breed.
- Clean clogged roof gutters every year, particularly if the leaves from surrounding trees have a tendency to plug up the drains. Millions of mosquitoes can breed in roof gutters each season.
- Turn over plastic wading pools when not in use. A wading pool becomes a place for mosquitoes to breed.
- Turn over wheelbarrows and do not let water stagnate in birdbaths. Both provide breeding habitats for mosquitoes.
- Aerate ornamental pools or stock them with fish. Water gardens can become major mosquito producers if they are allowed to stagnate.
- Clean and chlorinate swimming pools when not in use. A swimming pool left untended by a family on vacation for a month can produce enough mosquitoes to infest an entire neighborhood. Mosquitoes may even breed in the water that collects on pool covers.
- Use landscaping to eliminate standing water that collects on your property. Mosquitoes may breed in any puddle that lasts for more than four days.

Mosquito (and bird control) measures are helpful in reducing a horse's risk of WNV and EEE, but vaccination continues to be our first line of defense against the diseases. See your veterinarian immediately if you have neglected to vaccinate your horse against EEE or WNV in 2004. Follow your veterinarian's recommendations for appropriate booster vaccinations. Your 2004 foals require special vaccination considerations, as their date of birth many times will confound EEE and WNV vaccination recommendation. Your veterinarian will be able to help you sort out foal vaccination schedules.

Lastly, make certain all of your horses have been vaccinated against rabies. This disease has raised its ugly head again this year and proper vaccination is your only effective preventive measure.