



February 14, 2003

VACCINATE HORSES EARLY FOR WEST NILE

The West Nile virus hit Nebraska in a big way last year and surprised us all. There were well over 1,000 cases of sick horses in Nebraska in late summer. More than 20% of these cases proved to be fatal. Saline County had one fatal human case. Nebraska health officials were aware of the continued spread from east to west in the United States but no one could have predicted how dramatically the disease would spread last year.

The rapid appearance of West Nile last summer was, in part, due to the drought. The type of mosquito that was the vector for the disease is the species that tends to breed in permanent water. These species of mosquitoes are the primary carrier of the virus. Usually the majority of our mosquito population in a given year is the kind that multiplies after rains and flood water areas.

West Nile virus is carried back and forth between birds and mosquitoes. Many bird species are not affected a great deal by the virus. Birds most affected by the disease are crows, magpies, blue jays, hawks, owls, falcons, kestrels, and eagles. It is likely that in the course of the next few years seeing a blue jay or a hawk will be a rare event. Unfortunately, it appears that house sparrows, pigeons and starlings are relatively unaffected. In a strange way, our populations of quail and pheasant could very well benefit from the reduction in predator numbers.

It is important to note the only vectors of the disease since 1999 has been mosquitoes. They passed along the disease mainly affecting horses or humans. Horses and humans can really become sick or die, but the disease stops there. We can't pass it back to a mosquito, therefore, it's a strange game of tag.

Horses should be vaccinated to prevent this disease outbreak again this year. The vaccine is a killed virus product. Conditional licensing on the new vaccine means that the product has been shown to be safe, pure, and have a reasonable expectation of efficacy in preventing illness caused by the West Nile virus. The vaccine was only marginally helpful last year for several reasons: 1) It is not perfect. 2) It requires two vaccinations and about 2 months to be fully active. 3) In addition, it will require at least 2 boosters per year to hold a higher level of protection. In 2002, most of the horses vaccinated did not have enough time to be fully protected before the diseases hit hard. Horse owners will want to visit with their veterinarians and start or boost their vaccination program ahead of the mosquito season. Start the vaccination program March 1st so the horses are fully protected in April, then boost the program in mid to late summer so you have season-long protection.

The human side isn't any prettier, except there are fewer deaths, thank goodness. We do not really know the total number of human cases because only about 1 in 100 is clinical. In other words, 99 of 100 cases are like a common cold and clear up before doctor treatments are required. Most, but not all, clinical cases are among the less healthy population. People, who because of age or affliction, have a lower immune level. Clinical symptoms are quite serious, many being encephalitis-like.



We, as a population, will eventually build up some level of immunity to the West Nile virus. This will likely take in excess of 10-15 years. In the meantime, we need to stay active (a very important health factor), protect ourselves from mosquitoes via cleanup, spraying, and repellents. Vaccine development for human use will likely take several years.

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