

Protecting your horse from arthropod-borne viruses

Phillip E. Kaufman, Ph.D.
Associate Professor of Veterinary Entomology
Entomology and Nematology Department
Institute of Food and Agricultural Sciences
University of Florida
Gainesville, FL 32611-0620
pkaufman@ufl.edu

There are several viruses that are transmitted by mosquitoes that horse owners must be aware of and take preventive action against. Eastern equine encephalitis (EEE) virus and West Nile virus (WNV) are the most important and common viruses that affect horses and other equids in Florida. These viruses are present every year and horse owners must take preventive action to ensure the health of their animals. Infection with either of these viruses in unvaccinated animals often leads to severe problems, including great pain, loss of muscle control, long term recovery and chronic debilitation and in 60-80% of cases, death. Treatment of animals with these conditions is expensive and lengthy.

Fortunately, there are vaccines available for each of these viruses. However, owners must recognize a couple of important factors. First, the vaccinations work best when delivered early in the year. Second, most, if not all, require two injections spaced several weeks apart, and third, each requires an annual booster. Without the booster, your horse is at risk. The number of equine infections with these viruses in Florida can vary wildly from year-to-year and by the time we realize that it may be a high risk year, it is often too late for a vaccination to take effect. You are strongly encouraged to work with your veterinarian to develop an effective vaccination program for your animals that includes protection from these highly dangerous pathogens. Do not wait until an epidemic is happening.

Both EEE and WNV are transmitted by several mosquito species in Florida. As such, mosquito management is an important part of protecting your horse (and yourself). Through this presentation you will learn about mosquito identification and their developmental sites. You will learn what you can do to lower local mosquito populations and what types of mosquito control are impossible for you to manage.

Due to the short time that I will be presenting and to assist you in developing your equine health management plan, I have compiled a list of online resources that are freely available to you. You are encouraged to share these with your veterinarian.

Sources of further information include:

University of Florida

Florida Medical Entomology Laboratory – <http://mosquito.ifas.ufl.edu>

Check out the sub-menus, including:

Mosquito-borne Diseases

Mosquito Management

Encephalitis Information System (EIS) – <http://eis.ifas.ufl.edu/>

System will be rebooted this fall when updates are made

Florida Department of Agriculture Animal Disease Information:

<http://www.freshfromflorida.com/Divisions-Offices/Animal-Industry/Education/For-the-Community/Animal-Disease-Information>

EDIS System – Tremendous amount of free information: <http://edis.ifas.ufl.edu>

Featured Creatures – Some great equine articles: <http://entnemdept.ifas.ufl.edu/creatures/>

Pest Alert: <http://entnemdept.ifas.ufl.edu/pestalet/>

Entomology Dept. Publications: <http://entnemdept.ifas.ufl.edu/publicat.html>

Specific Horse Pests/Diseases:

External Parasites on Horses (With Insecticide Lists): <http://edis.ifas.ufl.edu/IG139>

Eastern equine encephalitis: <http://edis.ifas.ufl.edu/in179>

West Nile virus: <http://edis.ifas.ufl.edu/in117>

Surveillance for mosquito-borne viruses: <http://edis.ifas.ufl.edu/in479>

Vaccination program for adult horses: <http://edis.ifas.ufl.edu/vm132>

Collections:

Horse Pest Insects: http://edis.ifas.ufl.edu/topic_horse_pests

Horse Diseases: http://edis.ifas.ufl.edu/topic_horse_diseases

County Extension Offices: Fantastic resources for many needs – 1st stop with a specimen for ID or referral to UF College of Veterinary Medicine.

UF/IFAS has Extension Offices in each of Florida's sixty-seven counties. Twelve Research and Education Centers (RECs), Research and Demonstration Sites (RDSs), and several other offices are located throughout the state.

If you need help a great place to start is your local County Extension Office. With an office located in every county it has never been easier to partner with the University of Florida and your local County Government. To find an office near you please visit:

<http://solutionsforyourlife.ufl.edu/map/>

UF College of Veterinary Medicine has an extension program and may be of assistance.

Information on the program can be found at: <http://extension.vetmed.ufl.edu/equine-extension/equine-veterinary-extension-programs/>