Fact sheet: Eastern Equine Encephalitis (EEE) and Animal Health

What is Eastern Equine Encephalitis (EEE)?

EEE is a zoonotic, viral disease that is transmitted through the bite of an infected mosquito to both animals and people. EEE is one of the most dangerous mosquito-borne diseases in the U.S.

How many total cases of EEE are there in Michigan this year?

Overall, as of September 11, 2020, there have been 22 confirmed cases in equids for 2020 across ten counties: Barry (1), Clare (5), Ionia (1), Isabella (1), Jackson (1), Kent (1), Mecosta (1), Montcalm (7), Newaygo (2), and Oakland (2).

Can my pet(s) get EEE?

While the disease typically affects horses, humans, and birds, it can sometimes cause disease in other animals. EEE is rare in dogs and cats; however, when cases have been identified in dogs, they are typically less than six months old.

How do I protect my pet(s) from EEE?

- Since the mosquitoes that carry EEE are the most active between dusk and dawn, keep pets indoors as much as possible during this timeframe. Also, maintain window and door screening to help keep mosquitoes outside.
- In addition, there are some topical products that can be applied to dogs to protect them from mosquitoes; concerned pet owners should work with their veterinarian.

Can my livestock get EEE?

- Horses are more susceptible to EEE than other livestock and pets. About 90% of horses that develop EEE will die from the disease. EEE in other livestock and pets is extremely rare.

How do I protect my livestock from EEE?

- To minimize the risk to **all** livestock species, please take the following measures:
  - Placing animals in a barn under fans (as mosquitoes are not strong flyers) during peak mosquito activity from dusk to dawn.
  - Using an insect repellent on the animals that is approved for the species.
  - Eliminating standing water on the property—i.e., fill in puddles, repair eaves, and change the water in buckets and bowls at least once a day.
- For **horses**, a vaccine is available to protect them against the disease. While the vaccine is not legally required, horse owners are strongly urged to contact a veterinarian about vaccinating their animals

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Are there efforts being taken at the community level to protect both animals and people from EEE?

- Many local communities monitor mosquito populations within their borders and deploy various mosquito control efforts when needed.
- For areas of the state that have experienced a number of EEE cases in equids, the Michigan Department of Health and Human Services (MDHHS) has recommended aerial treatment to kill mosquitoes carrying the virus that causes EEE. While mosquitoes will naturally begin to die off in late fall after some hard frosts, additional steps might be needed to protect both animals and people from EEE infection.

If there will be aerial treatment in my community, should I worry about the safety of my animals if they are outside when the treatment occurs?

- If the State mosquito program will be conducting aerial treatment for a community, the pesticide that will be used is Merus 3.0, which is an organic pesticide containing five percent pyrethrins—a compound naturally found in chrysanthemum flowers. According to the label, there are no health effects listed for pets or farm animals that have direct contact with the sprayed chemical.
- Concerned animal owners can reduce potential exposure by keeping pets and farm animals indoors during the hours when treatment will occur.
- Also, pet and livestock owners should always work with their veterinarian regarding the overall health and wellness of their animals.

If my community is pursing mosquito control and/or if aerial treatment will occur in my area, do I still need to take extra precautions to protect my animals?

- The use of mosquito control options does not negate the need to take action by protecting horses through vaccinations and protecting all animals by eliminating standing water on a property, bringing them indoors from dawn to dusk, and working with a veterinarian to ensure their overall health and wellness.