

## INTRODUCTION

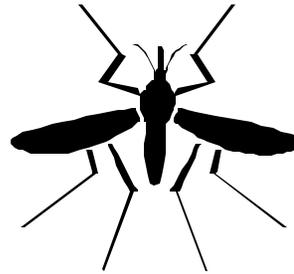
- West Nile virus was first identified in the United States in 1999 in New York.
- By 2001 the virus had spread to 27 states and the District of Columbia. The virus is expected to continue spreading across the United States.



- The disease normally is spread between birds and mosquitoes.
- Horses and humans become infected by being bitten by an infected mosquito.
- Horses and humans are dead-end hosts. This means that horses and humans cannot infect other people or horses.
- Corvids (Crows, magpies, and jays) are highly susceptible to the virus.

## TRANSMISSION

- When an uninfected mosquito feeds on an infected bird it acquires the virus.
- The virus survives in the mosquito's salivary glands.
- The infected mosquito transmits the virus to a horse, human, or another bird when it bites and sucks blood.



## CLINICAL SIGNS IN HORSES

- Neurological signs including listlessness, depression, incoordination, trembling, weakness, stumbling, paralysis, recumbency.
- Mortality (death) rates in horses with West Nile Encephalitis are reported to be 20% to 30%.

## TREATMENT

- Good supportive care and nursing care are essential – contact your veterinarian.

## WEST NILE VIRUS SURVEILLANCE IN COLORADO

- Testing dead birds for West Nile Virus is the best method for detecting the virus' presence.
- Report unusual bird deaths to the County Health Department – especially large numbers of crows, magpies, and jays.
- Thirteen Colorado counties maintain sentinel chicken flocks that are periodically tested for West Nile Virus.

## DIAGNOSIS

- Blood samples from horses exhibiting signs of West Nile Encephalitis can be tested at the Rocky Mountain Regional Animal Health Lab in Denver to confirm the disease.

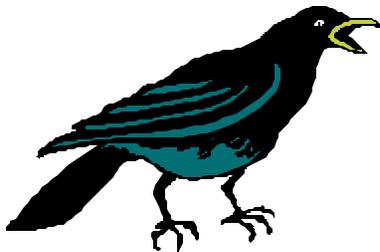
## PREVENTION

### Vaccination

- Experimental vaccine conditionally approved by the Federal Drug Administration.
- Primary (first time) immunization requires two doses 3 to 6 weeks apart. An annual booster is required every year thereafter.
- Vaccine is only available through licensed veterinarians.

## Mosquito Control

- Eliminate mosquito breeding habitat by eliminating standing water.
  - ✓ Dispose of, cover, or turn upside down unused items that collect water.
  - ✓ Drill holes in feed buckets and bunks and other containers that hold water.
  - ✓ Aerate stock tanks and ponds or stock with mosquito fish (*Gambusia affinis*).
  - ✓ Use bio-control agents such as *Bacillus thuringiensis (Bt)* and *Bacillus sphaericus* to control mosquito larvae.
  - ✓ Use oils, monomolecular films, Insect Growth Regulating Hormone (IGRH), and registered pesticides to control mosquito larvae. See <http://www.epa.gov/pesticides/factsheets/skeeters/htm>
- Use mosquito repellants and sheets or light blankets to decrease horse's exposure to mosquitoes.
- Stable horses during hours of peak mosquito activity.
- Drain and clean stock tanks once a week.



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## IMPORTANT POINTS TO REMEMBER

- Horses should be vaccinated for West Nile Encephalitis.
- Reduce risk of exposure to the virus by eliminating mosquito breeding habitat.
- Reduce chances of horses being bitten by infected mosquitoes by stabling during hours of peak mosquito activity, by applying mosquito repellants to horses and by using light blankets or sheets on horses.
- Report unusual bird deaths, especially above normal numbers of crows, jays and magpies to your county health department.
- Call your veterinarian if your horse exhibits neurological signs suggestive of West Nile Virus Encephalitis.

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# WEST NILE VIRUS ENCEPHALITIS

A Guide for Colorado Horse Owners



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