



Environment & Labour

WHAT FARM OPERATORS SHOULD KNOW ABOUT WEST NILE VIRUS

Is my farm a mosquito-breeding site?

Farming activities may support the production of mosquitoes. Larvae can develop in watering troughs, small ponds, irrigation ditches, rain barrels, manure lagoons, ruts where farm equipment frequently travels and other areas where water is allowed to accumulate. Although many people believe that a wetland, marsh, bog, etc. are prime mosquito breeding areas this may not be true. It is generally the stagnant water areas that are the result of human activity that are prime breeding sites.

How can I prevent mosquitoes from breeding?

There are many ways to eliminate mosquito-breeding areas on farms. These might include improving drainage in areas that are irrigated, or filling in ruts. Make sure you change the water in watering troughs regularly. Remove or frequently empty any containers that accumulate water, including discarded tires. Breeding of mosquitoes on residential and commercial properties can be reduced significantly through non-insecticide means by reducing the amount of standing/stagnant water available for mosquito breeding (i.e., source reduction). Most mosquito species deposit their eggs in or near standing water and larvae develop to the adult stage in this environment.

Examples of general control measures for any property:

1. Dispose of tin cans, plastic containers, ceramic pots or similar water-holding containers that have accumulated on your property. Do not overlook containers that have become overgrown by vegetation.
2. Empty standing water from used or discarded tires on your property (e.g. tire swings).
3. Drill drainage holes in the bottom (not the sides) of recycling containers (e.g. green carts) that are left out of doors.
4. Clean clogged roof gutters on an annual basis, particularly if the leaves from surrounding trees have a tendency to plug the down spouts. Roof gutters are easily overlooked but can produce millions of mosquitoes each season.
5. Turn over plastic wading pools when not in use or change the water on a weekly basis. A wading pool becomes a mosquito producer if it is not used on a regular basis.
6. Turn over wheelbarrows and change the water in bird baths weekly.
7. Aerate ornamental pools or change the water weekly. Water gardens are fashionable but become major mosquito producers if they are allowed to stagnate.

8. Clean and chlorinate swimming pools or hot tubs that are not being used. Be aware that mosquitoes may even breed in the water that collects on swimming pool covers.
9. Use landscaping to eliminate standing water that collects on private and public property. Depending on ambient temperatures, mosquitoes can develop in any puddle that lasts more than 7 days during the summer.

What about ponds and wetlands on my property?

A wetland, marsh, bog, etc. is an important part of the ecosystem. Although these areas will contain mosquitoes it is important to note that these areas also contain predator species to mosquitoes and will keep the mosquito population at a tolerable level. The alteration or draining of these areas will eliminate these predator species and may create areas that are more mosquito friendly. Thus creating prime mosquito breeding territory.

An Approval is required for the application of any Domestic/Commercial/Restricted class pest control product that is registered as a mosquito larvicide or adulticide in, on or over, or by air to a natural watercourse, swamp or wetland area. (larvicides are applied to water bodies as the mosquito larvae live in water - adulticides are not applied to water, but may be applied by aircraft). Approvals are not required to treat man made water bodies that do not connect to a natural water system (such as golf course ponds, farm ponds, fire ponds, ornamental ponds, etc). Please contact your local Nova Scotia Department of Environment & Labour office if you require further information.

Note: The alteration of a watercourse (ponds, rivers lakes etc) or water resource (wetland, marsh, bog etc), including infilling or draining the water therein, requires an approval from the Nova Scotia Department of Environment & Labour. The draining or infilling of a watercourse or water resource is not permitted for the purposes of “private gain”.

Certification

Applicators of a Commercial/Restricted class pest control product that is registered as a larvicide and is applied in, on, over or by air to a watercourse are required to have a Certificate of Qualification. Farmers who have their Class 8 Agricultural Certificate are not permitted to purchase or apply any commercial/restricted class pesticide for mosquito control.

Who should I contact if I locate a dead crow or bluejay ?

Enhanced surveillance of dead birds for West Nile virus is restricted to members of the family Corvidae (crows, blue jays, gray jays and ravens). Birds are to be reported to the local field office of the Nova Scotia Department of Natural Resources where staff will make the decision whether or not to pick up and send the bird to the Atlantic Veterinary College.

How can I protect myself?

It is not necessary to limit any outdoor activities. However, you can and should try to reduce your risk of being bitten by mosquitoes. In addition to reducing stagnant water on your property, make sure all windows and doors have screens, and that all screens are in good repair. If West Nile Virus is found in your area you may consider taking the following steps:

* Wear shoes, socks, long pants and a long-sleeve shirt or other protective clothing when outdoors for long periods of time, or when mosquitoes are most active.

* If you are considering using an insect repellent please refer to the fact sheet from Health Canada

NOTE: Refer to the safety tips as indicated in Health Canada's Information sheet "Safety Tips on Using Personal Insect Repellents". It can be found at <http://nile.healthcanada.net> or www.hc-sc.gc.ca/pmra-arla. It is recommended that pregnant women not use products containing DEET and these products should not be used on infants.

Where can I get the most up to date information on West Nile virus?

Nova Scotia Department of Health West Nile Virus Web site

<http://www.gov.ns.ca/health/westnile/default.htm>

1-800-430-9557 (Toll-Free Information Line)

For general information, visit Health Canada's West Nile Virus website at

<http://www.hc-sc.gc.ca/pphb-dgsp/wnv-vwn/index.html>

Pest Management Regulatory Agency:

Safety Tips on Using Personal Insect Repellents

http://www.hc-sc.gc.ca/pphb-dgsp/publicat/info/repell_e.html

Mosquitoes: <http://www.hc-sc.gc.ca/pmra-arla/english/pdf/pnotes/mosquitos-e.pdf>

Canadian Blood Services: <http://www.bloodservices.ca>

There are a wide range of resources available and a couple are listed below:

US Center for Disease Control West Nile - <http://www.cdc.gov/ncidod/dvbid/westnile/index.htm>

The American Mosquito Control Association - <http://www.mosquito.org/>