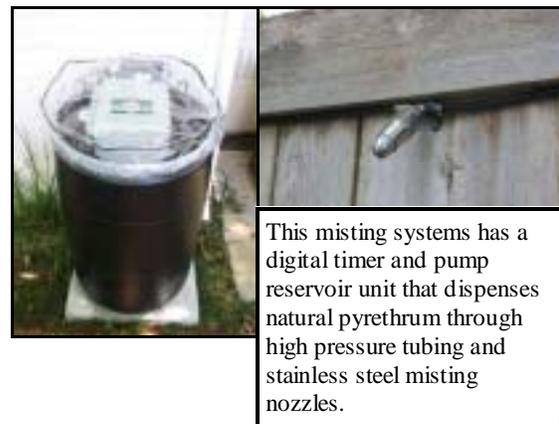


Mosquito Control Using Outdoor Automated Misting Systems

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With the recent announcements that West Nile Virus has been discovered in Oregon, there has been discussion concerning ways to control mosquitoes. One such system that has been developed is to use outdoor automated misting systems that disperse synergized formulations of natural pyrethrins (type of insecticide) at predetermined intervals by the user to control mosquitoes.

Though the use of outdoor automated misting systems might seem on the surface to be a very good control system to use for the homeowner or business, there are some serious concerns for the user. Of particular concern is that these systems do not consider the need to monitor mosquito populations. Pesticides should only be used when mosquito populations are present at levels that could present a possible health hazard.



This misting systems has a digital timer and pump reservoir unit that dispenses natural pyrethrum through high pressure tubing and stainless steel misting nozzles.

Such outdoor automated systems also can potentially target beneficial populations of insects and other non-target organisms through uncontrolled off-site pesticide drift.

The indiscriminate application of pyrethrin insecticides will continually select for resistance to the whole pyrthroid class of insecticides that we presently use to control mosquitoes. In time this will result in the development of resistant strains of mosquitoes, which will result in the loss of this important class of insecticides.

There is also concern over continued exposure by people to pesticide sprays. Pyrethrins, though relatively safe compounds bear the signal word "Caution" on the label, and the precautionary statements indicate that they may be harmful if inhaled. Labels also advise that pets and birds be removed and aquaria covered before spraying. To avoid problems with the use of pyrethrin based compounds or any other pesticides used in this manner will require homeowners and businesses to be diligent and follow the pesticide label very carefully.

The homeowner should not forget that there are other means to help manage mosquitoes, which include reducing or eliminating aquatic habitats and can significantly reduce mosquito populations. Eliminating all mosquito habitats in an area like the Mid-Columbia would not be practical. Efforts should be focused on eliminating non-natural habitats that may serve as breeding sites. These include any site or object that collect

and provide standing water for even a few days at a time. Examples are used tires, metal or plastic containers, clogged roof gutters, bird baths, wheelbarrows, wading pools, etc.

In addition to using pesticides as aerosols or mists to control the adult mosquitoes. Use of pesticides to treat mosquito larvae requires treating their aquatic habitats. There are several types of materials available for treating these. Achieving mosquito control without harming other aquatic organisms can be accomplished with microbial larvicides, which are selective for mosquito larvae and considered non-toxic to other aquatic organisms and humans. The most common of these are products that contain a bacterium known as *Bacillus thuringiensis israeliensis* (Bti).

Fish provide a form of biological control by consuming mosquito larvae and adults. Precautions must be taken to prevent the escape of exotic fish into natural waterways including creeks, streams, sloughs, ponds, and ditches if connected to natural waterways. For information on permitted stocking of exotic fish such as mosquito fish in Oregon, contact the Oregon Department of Fish and Wildlife at 800-720-6339, or visit their website: <http://www.dfw.state.or.us/>. In Washington, contact the Washington Department of Fish and Wildlife at 360-902-2936.

Avoiding mosquitoes entails exclusion of mosquitoes from homes and other structures with tight fitting window and door screens, wearing clothing that mosquitoes cannot bite through, and using mosquito repellents. When applying insect repellents, be sure to follow label instructions, paying particular attention to those when applying these products to children.

Monitoring the spread of West Nile Virus in Oregon and Washington is a coordinated effort of state and county agencies. Both states have telephone information lines and websites with extensive links to provide information on many aspects of the virus:

- Oregon Department of Human Services 866-703-4636, <http://www.dhs.state.or.us/publichealth/acd/wnile/index.cfm>;
- Washington State Department of Health: 1.866.788-4787, <http://www.doh.wa.gov/ehp/ts/Zoo/WNV/WNV.html>.