Look What's Out There

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Mosquitos: How to Control Them

Everyone has had the unpleasant experience of being bitten by a mosquito. Mosquito bites can cause severe skin irritation through an allergic reaction to the mosquito's saliva - this is what causes the red bump and itching. But a more serious consequence of some mosquito bites may be transmission of certain serious diseases such as malaria, dengue fever and several forms of encephalitis. Not only can mosquitoes carry diseases which afflict humans, but they also can transmit several diseases and parasites that dogs and horses are very susceptible to. These include dog heart worms and eastern equine encephalitis.

Mosquito Life Cycle

There are about 200 different species of mosquitoes in the United States, all of which live in specific habitats, exhibit unique behaviors and bite different types of animals. Despite these differences, all mosquitoes share some common traits, such as a four-stage life cycle. After the female mosquito obtains a blood meal (male mosquitoes do not bite), she lays her eggs directly on the surface of stagnant water, in a depression, or on the edge of a container where rainwater may collect and flood the eggs. The eggs hatch and a mosquito larva or "wriggler" emerges. The larva lives in the water, feeds and develops into the third stage of the life cycle called a pupa or "tumbler". The pupa also lives in the water, but no longer feeds. Finally, the mosquito emerges from the pupal case and the water as a fully developed adult, ready to bite.

The type of standing water in which the mosquito chooses to lay her eggs depends upon the species. The presence of beneficial predators such as fish and dragonfly nymphs in permanent ponds, lakes and streams usually keep these bodies of water relatively free of mosquito larvae. However, portions of marshes, swamps, clogged ditches and temporary pools and puddles are all prolific mosquito breeding sites. Other sites in which some species lay their eggs include tree holes and containers such as old tires, buckets, toys, potted plant trays and saucers and plastic covers or tarpaulins. Some of the most annoying and potentially dangerous mosquito species, such as the Asian tiger mosquito, come from these sites.

What You Can Do to Help Fight Mosquitoes

- Empty standing water in old tires, cemetery urns, buckets, plastic covers, toys, or any other container where "wrigglers" and "tumblers" live.
- Empty and change the water in bird baths, fountains, wading pools, rain barrels, and potted plant trays at least once a week if not more often.

Drain or fill temporary pools with dirt.

- Keep swimming pools treated and circulating and rain gutters unclogged.
- Use mosquito repellents when necessary and follow label directions and precautions closely.
- Use head nets, long sleeves and long pants if you venture into areas with high mosquito populations, such as salt marshes.
- If there is a mosquito-borne disease warning in effect, stay inside during the evening when mosquitoes are most active.

- Make sure window and door screens are "bug tight."
- Replace your outdoor lights with yellow "bug" lights.
- Contact your local mosquito control district or health department. Neighborhoods are occasionally sprayed to prevent disease and nuisance caused by large mosquito numbers. If you have any questions about mosquitoes and their control, call your local authorities.
- (U.S.EPA, Pesticide and chemical fact sheet)

Chemical News

• The following is a Six Month Summary List For the Restricted Use Products (RUP) Report.

June 2003

Chloropicrin Atrazine Fipronal Metolachlor Chloropyrifos

December 2002

Permethrin

June 2002

Atrazine Biphenthrin Oxydemeton

May 2002

Disulfoton Ethion Ethoprop

Phorate

- (U.S. EPA, Pesticides, June 25, 2003)
- As of June 14, USDA's Animal and Plant Health Inspection Service has tested 2,871 cattle for BSE under its expanded surveillance program, and all results have come back negative for the brain-wasting illness (Food Chemical News: June 16, 2004, Volume 6, Issue 115).
- EPA's FIFRA Scientific Advisory Panel yesterday offered little resistance to the approval of a new brand of Bt cotton during an open meeting in Arlington, Va. (Pesticide and Toxic Chemical News: June 09, 2004,Volume 6, Issue 110).

- Corn farmers who filed claims last year as part of the class action lawsuit against StarLink corn may soon receive compensation for their losses, according to the National Corn Growers Association (Pesticide and Toxic Chemical News: June 10, 2004, Volume 6, Issue 111).
- Continued concerns about risks to drinking water supplies and aquatic ecosystems have caused several use restrictions and handling modifications, but EPA nevertheless has announced that pesticide active ingredient methyl parathion meets environmental safety criteria for its remaining uses. The agency therefore is issuing an interim re-registration eligibility decision (Pesticide and Toxic Chemical News: June 07, 2004, Volume 32, Issue 33).
- EPA has ruled that the insect repellent MGK Repellent 326 (di-npropylisocinchomeronate) poses no unreasonable adverse effect on human health or the environment when properly used and consequently is eligible for reregistration (Pesticide and Toxic Chemical News: June 07, 2004, Volume 32, Issue 33).
- In the June 1 Federal Register (69 FR 30908), EPA issued a notice announcing agency approval of applications submitted by ISK Biosciences Corp. and FMC Corp. to conditionally register the pesticide products Technical Flonicamid Insecticide and F1785 GH 50 WG Insecticide, both containing flonicamid (Pesticide and Toxic Chemical News: June 07, 2004, Volume 32, Issue 33).
- In the June 3 Federal Register (69 FR 31297), EPA issued a final rule amending 180.1253 by establishing an exemption from the requirement of a tolerance for residues of the microbial pesticide Streptomyces lydicus WYEC 108 on all agricultural commodities when applied/used in accordance with label directions (Pesticide and Toxic Chemical News: June 07, 2004, Volume 32, Issue 33).