

MOSQUITOS AND TICKS...

are a health hazard. Many companies now advertise an easy solution – spraying the area around your home to eliminate these pests.

This pamphlet discusses the hazards of these sprays and suggests alternatives to better protect the health of you and your family.

The chemicals in mosquito and tick sprays are advertised as “safe for kids and pets.” But the sprays are manufactured, chemical poisons.

One of the chemicals used for spraying is called **Cross Check**. Its Safety Data Sheet (required for all hazardous materials) shows its more accurate chemical name:

(2-methyl[1,1-biphenyl]-3-yl)methyl 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate.

The advertisements can lead one to think that these chemicals are made from flowers, chrysanthemums. That flower does produce a compound called pyrethrin. **Cross Check** (also called Bifenthrin) is a pyrethrin but it is a man-made chemical, far more complex and bio-active than the natural molecule. Does the above formula look like something in a flower?

Bifenthrin works by affecting the nervous system of insects. It has been found to be highly toxic to honeybees and aquatic life, including fish. It has been shown to cause cancer in mice. Teratogenic and mutagenic effects are not presently known. These statements are from the Safety Data Sheet.

If you do decide to spray, insist that the company give you the Safety Data Sheet – in addition to the information above, including updates (check the date), it will have the contact information for poison control and first aid information.

How many other chemicals are said to be safe and then years later we find out they're not?

So what do you do instead?

The sprays give you a false sense of security. EVEN IF YOU SPRAY and assuming the spray kills all ticks in your yard, where else do you or your kids or pets go? They can still pick up ticks and bring them home.

There are three strategies to use: personal protection, maintenance measures, and natural controls.

Personal protection, spraying repellent onto your clothing (not your body) is the most effective. Spraying the sleeves of

your shirt and pants legs deters mosquitos and ticks.

You may use Deet products which do have some of the same concerns as any poisonous spray but applying it to your clothes is less hazardous and much more effective. There are also some sprays that use citrus and other oils that are actually “natural,” but they rapidly wear off so you will need to re-apply often.

Ticks pose serious life-altering health issues. The best strategy is to apply repellent and conduct thorough checks of the clothing, body and hair of all family members, even pets after coming in from the outdoors. Get them early, before they bite you.

A habit of checking for ticks is far more effective than the assumption that the sprays keep you “safe” and don't need to check. Have a routine for checking: both the when you do it (coming into the house – go to the bathroom) and how (work from the hair, downward – lastly, check the clothing).

Check areas where clothing is tight, the backs of your arms, armpits, belt-line and hair-line – this habit is your best protection. Get a hand mirror to check more difficult places. Talk to your Doctor immediately if you are bitten.

Another layer of personal protection is to wear light colored clothing to make it easier to see ticks and deter mosquitos.

Maintenance measures take away habitat for ticks and mosquitos in your yard. Mosquitos are poor fliers and need to hunt close to home. Anything that holds stagnant water for more than a few days is home. Make sure your gutters drain effectively – clean and check them. Bird baths, dog bowls, any commonly standing water should be emptied daily or at least every few days. If you do have standing water that can't be emptied use BT tablets available at garden stores.

Reduce ticks by mowing the areas you use often and keep the area around bird feeders clean to minimize mice that carry ticks.

Natural Controls work from a balanced environment around your home. In addition to affecting the health of you and your family, these sprays affect the good bugs and animals that control these pests. What happens when the birds, frogs, and dragonflies are gone and the ticks and mosquitos evolve to tolerate the sprays?

Mow the grass but protect the natural areas too. The natural areas are where

the bugs and animals that eat mosquitos and ticks live. Trees, shrubs, long grass and areas where leaves stay on the ground are the home of the predators that control mosquitos and ticks. Don't leaf blow all the cover away.



Photo courtesy of Catherine Luce.

A tree frog, about the size of a quarter, on the hunt in a Wrentham yard.

Some mosquitos do come out of swamps, but so too do the most effective mosquito predators – dragonflies. Dragonflies work the day shift of eating mosquitos and bats work the night shift.

Birds are important predators of mosquitos and ticks too. Hummingbirds

need small insects to feed their young and many birds eat ticks. Quail are great tick eaters although most of those are now gone thanks to house cats.



Catherine Luce

If you must spray:

- Get a written copy of the Safety Data Sheet of the spray before you pay or spray in case you, your children, or your pets have an adverse reaction.
- Check with your neighbors to see if they have any concerns, if they keep honeybees or have sensitivities. Let the sprayer know what areas to avoid.
- Don't allow spraying if it is windy. Minimize overspray.

Suggestions and Questions may be directed to: Wrentham Conservation Commission, 508-384-5417.

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