



A BI-MONTHLY NEWSLETTER OF THE SEBASTOPOL TOXICS EDUCATION PROGRAM

What Are Pesticides – And Why Should We Be Concerned About Them?

We've all heard the word "pesticide", but what does it mean exactly?

Simply put, a pesticide is any product that kills an organism that someone considers a pest. Pesticides include insecticides (to kill insects), herbicides (to kill plants or "weeds"), fungicides (to kill fungus), etc.

Each year, Americans use 280 million pounds of pesticides in our homes, lawns, gardens, workplaces, parks, and schools, plus a billion pounds on our farms.¹ About 85% of our homes have 3 to 4 pesticide products, including pest strips, bait boxes, bug bombs, flea collars, pesticidal pet shampoos, aerosols, foggers, granules, liquids, and dusts.²

For many people, pesticides seem a quick and easy solution for those ants or weeds we just want gone now. Unfortunately, many are deciding to use these pesticides without full information on their downsides. Because even though it doesn't say so on the label, studies have consistently shown that many pesticides (especially synthetic ones) don't just harm their target insect or plant. They often harm the health of ourselves, our families, our pets, and our environment – and can even make our work harder! Would we make different decisions if we knew these facts?

■ **Pesticides have been shown to significantly harm our health.** Many have been shown to cause cancer, and harm our immune, reproductive, and neurological systems. For instance, a study of Missouri children found a correlation between brain cancer and the use of household pesticides like diazinon and carbaryl (Sevin).³ And a National Cancer Institute study found that dogs exposed

to the popular lawn-care herbicide 2,4D died from cancer at twice the normal rates.⁴ In fact, the U. S. Environmental Protection Agency (EPA)



estimates that 60% of herbicides, 90% of fungicides, and 30% of insecticides potentially cause cancer (are carcinogens)⁵ and the National Academy of Sciences estimates that pesti-

cides cause an additional 1.4 million cases of cancer each year.⁶

■ **Pesticides have been shown to significantly harm our environment.** They've been shown to kill millions of birds and fish each year, a wide variety of beneficial insects (including pollinators like bees and butterflies), and many other plants and animals that together weave this planet's vital web of life.⁷

■ **Pesticides can actually make our work harder!** For instance:

- They can kill the pest's natural enemies, requiring more and more pesticides to try to control pests (the pesticide treadmill);
- They can kill the natural enemies of other bugs, resulting in new pest problems (secondary pests);
- The strongest pests can survive to breed new super-pests that pesticides can't kill (pesticide resistance); and
- They can kill pollinators, resulting in smaller or no crops.

Luckily, this harm from toxic pesticides is simply not necessary. There are many ways to manage pests that are much safer for everyone, using least-toxic (natural) pesticides and simple techniques like removing the pest's food, blocking its entry, and encouraging its natural enemies. And your gardens can produce as much bloom and food without using syn-

Letter From Your City Council

Dear Sebastopol Citizen,

As you might know, in May of 1999 the Sebastopol City Council voted to establish Sebastopol as a Voluntary Toxics-Free Zone. We did this because we want to live in a safer environment and leave our children and their children a healthy world in which the air is safe to breathe and the water is safe to drink.

We know that urban and household use of toxic chemicals is, per acre, at least as intense as agricultural use and contributes significantly to the poisoning of the air, water, and land, and to the loss of biodiversity. We believe that people in Sebastopol don't want to harm the earth and themselves and would prefer to use safer ways to make their gardens flourish and to keep their homes clean and safe.

Since then, a volunteer citizen committee has been creating a program to implement this resolution through educating ourselves and our neighbors about effective alternatives to chemical pesticides. Part of this program will be this regular newsletter in your water and sewer bill which will provide information about safer ways to deal with common garden and household pests.

In addition, the City of Sebastopol has made a commitment to eliminate the use of all chemical pesticides on City-owned property, including our parks and play areas. We did this because we believe that we should set an example and not ask our residents to do anything we ourselves are not willing to do.

For residents, participation in the Voluntary Toxics-Free Zone is totally voluntary.

It is our hope that you share our commitment to a healthy and sustainable future, and our belief that good citizenship includes responsible stewardship of the land. And we hope that you find this newsletter's information useful!

The Sebastopol City Council

thetic chemicals. The National Academy of Sciences found that farmers who used little or no chemical pesticides grew as much insect-free food as those who used lots of them.⁸

In this newsletter, we'll alert you to the real story behind the harmful pesticides so commonly found in our homes and local stores — and help you find quick, easy, and much safer alternatives!

What Can I Do and Where Do I Start?

By reading this newsletter you've already begun. Now look for ways you can make small but significant changes.

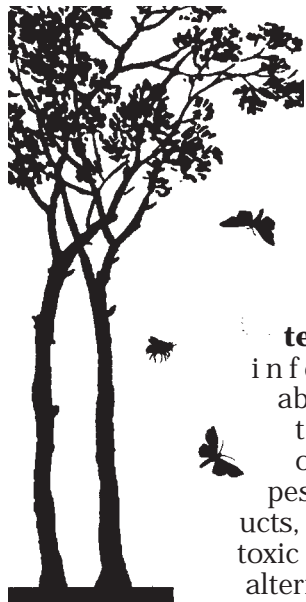
■ **All change begins with awareness.** Take a look at the products you use in your kitchen, bathroom, lawn, and garden, including cleaning products. Read the ingredients. Look for products that say Danger and Warning (see box at right), and replace them. Change some products you've been using for those that are less toxic or non-toxic and equally effective. Change some of your habits to prevent problems from happening in the first place.

■ **Connect with local sources of information and alternatives** to help you meet your needs less-toxically. For instance, you can call the UC Cooperative Extension's Master Gardeners hotline with your gardening questions (565-2608). They often have less-toxic options and even free printed material they can send you. Local stores and nurseries can also assist you.

■ **Move at your own pace.** Some people can make big changes quickly, while others move more slowly. Do what you can, one step at a time, whether you're taking baby steps or giant steps. Keep moving forward. Know that every step counts, and that

there are resources to help make your transition easy and effective.

■ **Read future STEP newsletters** for more information about the potential harm of common pesticide products, and the less-toxic and effective alternatives.



So What Are My Alternatives?



For many problems, you can use less-toxic natural pesticides found at some local stores. And you can avoid many pest problems in the first place by changing the conditions that encourage them, and by supporting the natural ecosystems that can keep pests in check – with much less work!

There are many simple and quick ways to create a healthy home and garden without pesticides of any kind. For instance, you can:

■ **Nurture your soil.** Ask any organic gardener and they'll tell you that gardening problems begin in the soil. Good drainage, nutrients from compost, and natural fertilizers all add up to healthy soil, creating healthy plants that discourage pests. Poor soil means weaker plants — the ones pests are attracted to. Note: Don't over-fertilize or you can attract aphids.

■ **Attract pollinators and natural predators.** Growing herbs can be a fun and delicious way to encourage the insects you want to feed on the insects you don't want. Plants that promote beneficial insects include rosemary, lavender, and sage. Learn to identify good bugs that actually do your work for you!

■ **Create barriers and traps for pests, in your garden and home.** Thin copper strips placed around a raised bed keep out snails. A codling moth pheromone trap lures the codling moth, the #1 pest for apples in the county (you need just one for every 10 acres). Tanglefoot sticky barrier, carefully put around fruit trees, keeps out ants and aphids. Keep ants out of your house by removing food sources, keeping surfaces clean, and caulking entryways in molding and walls. For an ant trail, use ant baits with boric acid.

■ **Monitor your garden.** Look for diseases or pest damage on your plants once or twice a week. If you have aphids, snails, or other pests in your garden, it's easier to take care of a small problem than wait until you have an infestation.

Thanks to Kate Burroughs of Harmony Farm Supply and Cheri Duzanica, Master Gardener, for their input on the Alternatives article. For a complete list of footnotes for the Pesticides article on page 1, see <www.monitor.net/~cap/F1> or send a SASE and request "Footnotes (1)."



We Want Your Input!

We've created this newsletter to be of service to YOU! Please send us your questions, requests, suggestions, ideas, success stories, etc. Your input will help us make our future newsletters as useful as possible!

Pesticide Safety Tips

■ Avoid the most toxic.

Identify the *acute* (immediate) *health* toxicity of a pesticide by looking for these keywords on the label:

Danger = Category I (most toxic)

Warning = Category II (next toxic)

Caution = Categories III & IV (least toxic, but still not safe)

Instead of buying or using Category I or II products, replace them with safer options. Assess the *chronic* (long-term) *health* and *environmental* risks of a pesticide by searching <www.pesticide.org/ResPHealth.html> and <www.panna.org>. Or you can call (541) 344-5044 or (800) 858-7378; a small fee might apply.

■ **Read and take seriously all label instructions and cautions,** including for protective clothing. These instructions are vital for the well-being of yourself, your family, and our shared environment.

■ **Use and store all pesticides (even safer ones) away from children and animals.** Keep them in locked cupboards, not on open shelves within easy reach.

■ **Dispose of toxic pesticides safely** through local Household Toxics Roundups. (Call 565-3375 for dates and locations.) Don't put them in the trash or bury them in your back yard where they can get into the water system.

What Is IPM?

Many tips about less-toxic pest control can be found in books and articles about Integrated Pest Management (IPM). IPM is a systematic way of identifying your pest, finding ways to change the conditions so that it's no longer at pest levels, and using least-toxic remedies to control it.

Caution: There's no legal definition for IPM, so people can mean different things by it. The term's originators saw toxic pesticides as the absolute last resort, and only then if there was a serious risk of harm from inaction. But now some pesticide companies offer their own so-called IPM programs — with their toxic pesticide offered as the first solution!

What Do I Get For Making These Changes?

- Healthier children
- Healthier pets
- A healthier, safer environment
- Walking barefoot in non-toxic city parks — and your own yard!
- Watching children rejoice in the lightness of dandelions (or joining them!)
- The satisfaction of being part of an important community project

ABOUT STEP

The Next Step is published six times a year for Sebastopol residents by the **Sebastopol Toxics Education Program (STEP)**.

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