



THE NEXT STEP Toward a Healthier Future

A BI-MONTHLY NEWSLETTER OF THE SEBASTOPOL TOXICS EDUCATION PROGRAM

Protect Your Teenagers at Work

Is your teenager working this summer for extra cash? If so, **be sure they're protected from worksite toxics.**

According to *The Green Guide* ("Eco-Safety for Teens at Work," Jan. 2000), 80% of high school students hold a job before graduation. **Half of these youth do some cleaning on the job, using industrial-strength cleaners and disinfectants.** And most teens aren't aware that protective equipment (such as gloves, goggles, and face masks) are important when using these products, in order to avoid both immediate and long-term harm.

According to *The Green Guide*, "Scientists are becoming concerned that **chemical exposures during adolescence might contribute to cancers or reproductive disorders later in life.** Adolescent immune systems may be more vulnerable, too."

Businesses use a variety of other products with serious warning labels. Construction sites and auto body shops use toxic paints, solvents, and glues. Nail salons use toxic glues, nail polish, and acetone (polish remover). Lawn care companies and farmers can use toxic pesticides. And don't forget those drive-through windows, loading docks, and gas stations, filled with vehicle exhaust.

If your child is fatigued, or has headaches or dizziness, it might be job-related. And these symptoms can warn about potential long-term effects, too.

What can a parent do? Ask your children what tasks they do, what products are used, and if properly-fitting protective equipment is provided. Encourage them to be informed and protect their own health.

SOURCES: "Commitment to Cleaning Naturally," Jane Bogner, Sierra Club Redwood Needles, June 1, 2000 • The Green Guide <www.thegreenguide.com>

Assessing Pesticides

OK, so let's say you're considering using a pesticide for an insect or weed problem. Or someone you know is. Hopefully, alternatives have been tried — perhaps using the Integrated Pest Management (IPM) process for developing least-toxic solutions. (See IPM in TNS II/6.) Still, the pest persists at a serious level.

And you're wondering if a particular pesticide might be the answer. But, you also wonder, is it worth the risk? How toxic is this stuff anyway? How can you tell?

Nearly All Pesticides Have Risks

The first thing to understand is that nearly all pesticides risk harm to "non-target" organisms — which can include people, pets, crops, insects, and wild plants and animals.

In fact, it's generally illegal for a manufacturer to call a pesticide safe or non-toxic. (There's an exemption for products made from certain "natural" ingredients.) The regulation system doesn't insist that pesticides be safe, just that they don't cause "unreasonable" harm to health and ecosystems. And analysts have demonstrated that the system drastically underestimates pesticides' harm by ignoring key factors and making faulty assumptions. That's why it's vital to assess a pesticide's likely risks of harm, and determine if they're really worth taking.



What Is a Pesticide?

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.

Types of Harm

Pesticides are assessed by looking at three categories of potential harm:

- 1) **Acute health harm.** Immediate harm to human health, ranging from a headache to a seizure.
- 2) **Chronic health harm.** Longer-term human health harm, including cancer, and damage to the immune, reproductive, and neurological systems.
- 3) **Environmental harm.** Harm to ecosystems and animals, fish, birds, insects, plants, etc.

Start with the Label

A pesticide's **acute health effects** are assessed using animal exposure tests. The results determine the product's Toxic Category, which determines the label signal word:

Category	Signal word
I (most toxic)	Danger
II (next toxic)	Warning
III (less toxic)	Caution
IV (least toxic)	Caution (optional)

Prioritize avoiding "Danger" and "Warning" products. And look for products with an OMRI logo (indicating acceptability for organic farming).

You can also get a sense of a pesticide's other risks by reading the label. For instance, if it says, "Do not apply directly to water," that means

See Assessing Pesticides, over ...

Earwigs: The Good, The Bad, & The Ugly

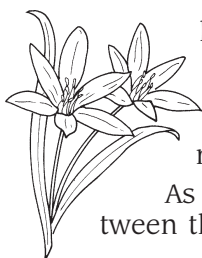
I was working in my garden the other day when I heard a voice say to me, "Nobody likes me. Everybody hates me. Gonna go eat some aphids."

I looked down to where I heard the voice coming from — and saw a little earwig looking up at me.

"You eat aphids??" I said.

"I do," she replied. "And snail eggs, young slugs, nematodes, chinch bugs, and lots of other bothersome things. I also find decomposing vegetable material very delicious, so I help release these nutrients again for your plants."

"Wow, earwig," I said, "I had no idea you were so beneficial. Why do people dislike you so much?"



"Ah," she said, "we have an image problem. People don't like our pinchers, even though we really are no risk to humans."

As she disappeared between the rocks, I wondered

if I could believe her story. So I went inside and looked it up, and found that everything she said was true! Though not flashy like butterflies, earwigs are indeed largely beneficial insects. So, **if they're not really causing any damage, it can be valuable to just let them be.**

However, there are times when earwigs can get in our way — for instance, when they munch plant leaves or seedlings in the garden.

If you suspect earwigs are eating your plants, the first step is to confirm that they are actually the cause. Go out at night with a flashlight and see if you can catch them in the act. Do you see many around your plants? Or do you see lots of slugs and snails, which can also eat plants?

If you identify earwigs as the cause of significant harm, there are two easy and non-toxic solutions:

■ Remove their hiding places.

Earwigs love dark and moisture, so remove or reduce nearby ivy, weeds, leaves, mulch, and trash piles.

■ Set traps.

One effective trap is a can with oil in it (like a tuna fish can). Other traps include a rolled-up newspaper, corrugated cardboard, a bam-

boo tube, or a short piece of hose. You can optionally add a little oil as bait. Set traps in your garden just before dark. In the morning, shake accumulated earwigs into a pail of soapy water.

For more information on earwig control, see UC's Integrated Pest Management website <www.ipm.ucdavis.edu>. And check out *Common-Sense Pest Control*, available at the Sonoma County Library.

~ Karen Froiland

ABOUT STEP

The Next STEP (TNS) is published six times a year by the **Sebastopol Toxics Education Program (STEP)**. STEP is a project of the **City of Sebastopol**, implemented by local citizen volunteers. **STEP's mission** is to support city residents in reducing their toxic use and exposure, creating a healthier and safer Sebastopol for everyone.

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Assessing Pesticides, continued

that studies have shown it to cause serious harm there. Certain types of harm must be reflected in the label instructions, and it's illegal to use a pesticide contrary to its directions.

Beyond the Label

Still, the label only gives a partial picture of a pesticide's risks. For more information, ask for the Material Safety Data Sheet (MSDS) from the store, applicator, or manufacturer.

To continue this project, we need more writers!

You can get your name in print, share your wisdom, and help your community. We have lots of great sources of information and articles are usually short. If you're interested in this topic and can write clear helpful information, email the Editor at <PDines@compuserve.com>.

But, for a complete picture of a pesticide's known risks of harm (especially chronic health harm), one must look at the scientific studies. These can be challenging for the average person to find and sort through. Thankfully, non-profits gather and summarize this information. Two excellent sources are:

■ Northwest Coalition for Alternatives to Pesticides (NCAP) and *The Journal of Pesticide Reform*. <www.pesticide.org>

■ Pesticide Action Network Pesticides Database <www.pesticideinfo.org>

Some short summaries are also in past TNS issues. See <www.healthyworld.org/STEPIndex.html>.

Hidden Harm

In addition to a pesticide's known risks of harm, a number of factors can increase its net toxicity. For instance:

■ **"Inert" ingredients.** While they sound innocuous, a product's so-called "inert" ingredients can actually be more toxic than the active ingredient, but their identity can be hidden using trade secret laws.

■ **Cumulative and synergistic effects.** People and places are often exposed to multiple pesticides and toxics at once, amplifying their harm.

Your Decision

Now you can weigh the possible risks, costs, and benefits of the pesticide, relative to alternatives, and determine your approach to your pest problem. If a pesticide is likely to cause harm, consider if the benefits are really worth it. And, if you do use a pesticide, use the least-toxic option, in the smallest amount and area possible. And follow the label directions!

~ Patricia Dines

Thank you to NCAP for assisting with this article.