

THE NEXT STEP Toward a Healthier Future

A BI-MONTHLY NEWSLETTER OF THE SEBASTOPOL TOXICS EDUCATION PROGRAM

How IPM Helps You Manage Pests

Are you looking for effective long-lasting solutions for insects, weeds, and other pests in your home, office, or school? Do you want to avoid the health and environmental risks of synthetic pesticides? If so, Integrated Pest Management (IPM) can help!

Because, in addition to their risks, pesticides often are not even the most effective solution. They can attack the symptom leaving the cause unchanged, and create new pest problems by killing natural predators.

So how do you create an effective strategy, with the lowest negative side effects? That's where IPM comes in. It offers a systematic way of approaching your pest problem and developing lasting solutions. And, for schools, businesses, and other institutions, it gives a format for recording what you figured out for next time that problem appears.

Here's an overview of how the IPM process can work:

1. Identify scope of problem

This is key to creating an optimal solution. What's the exact pest? What kind of risk or damage is it causing? How extensive is the problem? Has it passed your tolerance level?

2. Create positive conditions

■ **Design for success.** For instance, choose the right plants and put them in the right place to avoid problems; choose healthy plants; and inspect them before bringing them in.

■ **Strengthen the plants.** If pests or disease are threatening a plant,

help it resist by ensuring that it gets the right amount of water, sun, and fertilizer on an ongoing basis.

■ **Remove pest habitat.** Can you remove pests' access to food, water, or shelter? For instance, can you put food in containers? If you have slugs, are they hiding under a mulch? If you want to avoid weeds, can you cluster plants closer together or put desired plants in-between, like radishes?

■ **Support pest predators.** Does the pest have natural enemies and how can you create a better environment for them?

3. Consider physical and mechanical controls

This includes options like: setting traps, using barriers like screens, caulking cracks, hanging flypaper, putting sticky bands on tree trunks, manually removing pests (with a hoe or vacuum), and using heat or cold (like flamers for weeds, heat for wood-boring pests, cold for moth eggs in clothes, etc.).

4. Consider biological controls

When you support nature's ways of keeping pests in control, you make your work easier and bring beautiful side benefits. Birds, bats, frogs, ladybugs, and praying mantis eat many insects, including mosquitoes and aphids. Very tiny predatory wasps, mites, and nematodes feed on even tinier creatures. Create conditions to welcome allies into your garden. You can even buy insects, bacteria, etc. specific for your pest problem.

5. Consider least-toxic chemical controls

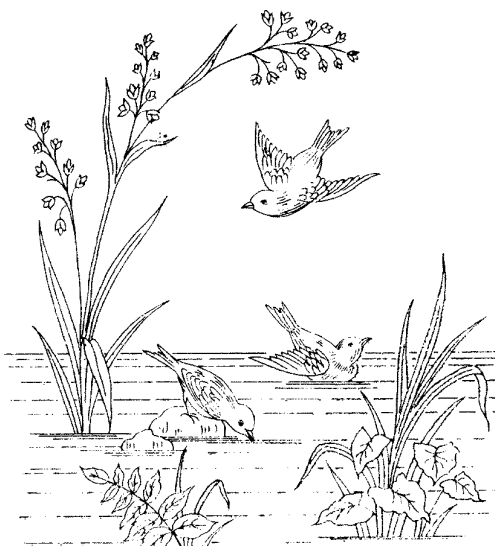
If the above approaches don't work, consider pesticides derived from natural sources and allowed in organic farming. Look for ones that are the most targeted for your pest, and use them in the smallest amount and area possible. This helps avoid harming non-target species and causing secondary pest outbreaks (as well as health and environmental problems). You can find a variety of products that have a low toxicity and biodegrade quickly. **Read the labels;** some botanical pesticides are broad-spectrum and can also kill beneficial insects.

If the pests remain and you're considering using more toxic pesticides, really weigh the risks. IPM is designed to avoid toxic pesticides unless absolutely necessary – for instance, when human lives are at risk if no action is taken. So, if you have dandelions on the lawn where your children play, consider whether that is enough of a problem to warrant exposing them to an herbicide that is known to increase rates of cancer in household use. Perhaps it's better to see through the child's eyes the joy of dandelions. Or find a grass seed that outcompetes the dandelions!

This gives you just a taste of what IPM offers. Explore books and websites to find out how it can help you with your specific pest problems. **And be aware** – IPM doesn't have a legal definition, so people can mean different things by it. Some pesticide companies have co-opted the term, presenting so-called "IPM" programs that have their toxic pesticide as the first solution offered!

~ Patricia Dines

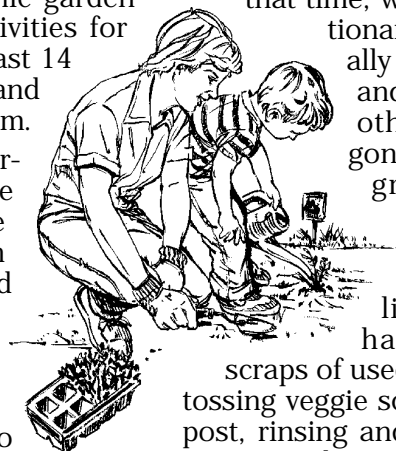
SOURCES: *Common-Sense Pest Control*, by William Olkowski, et al. *Natural Gardening*, by Jim Knopf, et al.



Park Side School's Organic Garden

More and more we hear about innovative programs being created to nurture healthier, more ecological schools, while teaching kids about living sustainably with the earth. So it's heartening to know that, because of teacher and parent assistance, Sebastopol's Park Side elementary school has had an organic garden and other ecological activities for their students over the past 14 years. And you can dig in and help these activities blossom.

Park Side's organic garden was started in the 1988-9 school year, before most schools had even heard of composting, food recycling, or reducing the use of toxic pesticides. A few teachers – including first-grade teacher Tom Van Gorden – decided to start a Life Lab, which is a special curriculum developed at UC Santa Cruz for teaching science and sustainability (see < www.lifelab.org > for more info). They gathered together teachers, parents, kids, and community donations (including a Sebastopol Education Foundation grant) and tore out the asphalt on the school's west side. There, they created a garden for hands-on science, including building raised garden beds.



In 1994, the garden continued to be enhanced when Mr. Van Gorden and other teachers received mentorships to get Life Lab curricula, do lunch recycling, and buy a chipper for landscape materials. With this funding, they were able to create bins to turn school lunch food scraps, waste, and landscape clippings into compost for the garden.

My daughter was lucky enough to attend Mr. Van Gorden's class at that time, with its then-revolutionary systems for virtu-

ally eliminating garbage and waste. She and the other kids who have gone through that first-grade class at the threshold of their public life now have a low-impact lifestyle as a basic habit: seeking out scraps of used paper to write on, tossing veggie scraps into the compost, rinsing and recycling all containers, and re-using school supplies.

In the 2001-02 school year, the school had a great organic garden, which the kids helped plant and maintain. The bounty harvested and enjoyed this June included "onions, garlic, carrots, lots of flowers, and winter wheat," says Mr. Van Gorden. The kids winnow the wheat they harvest to separate out the grains, which then are ground for cookies and other foods that the children make and eat

"Kids today are bombarded with a pop culture which teaches redemption through buying things. School gardens, on the other hand, turn pop culture upside-down; they teach redemption through a deep appreciation for the real, the authentic, and the lasting – for the things that money can't buy: the very things that matter most of all if we are going to lead sane, healthy, and sustainable lives."

– Alice Waters, *Chez Panisse*;
Berkeley's Edible Schoolyard

at school. They saved some wheat seeds last year which they'll plant this year. Through these activities, they learn experientially about the cycle of food that sustains us all.

Over the years, the garden and related activities have waxed and waned, depending on the amount of parent involvement and staff support. Right now, Mr. Van Gorden is looking for people to help to reinstate and expand many of the school's well-organized re-use, composting, and recycling programs. Parents and other community members who want to help at an occasional Saturday garden/work party or with lunchtime recycling can call him at 829-7400. Also, many fun educational links about composting, gardening, bugs, worms, bats, and science curricula can be found at < www.lifelab.org/helpful/index.html > .

~ Rebecca Dwan
with Patricia Dines

ABOUT STEP

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

STEP's mission is to support Sebastopol citizens in reducing their toxic use and exposure, creating a healthier and safer Sebastopol for everyone.

Newsletter Editor and Layout: Patricia Dines

Newsletter Editorial Team: Rebecca Dwan, Craig Litwin, and Patricia Dines

Newsletter Design Concept and Logo Design: Lyn Bouguereau

STEP Members: Michael Black, Patricia Dines, Rebecca Dwan, Jeff Edelheit, Nan Fuchs, Craig Litwin, & Sam Spooner.

STEP, P. O. Box 1776, Sebastopol CA 95473
WEB: www.ci.sebastopol.ca.us

IPM Resources

Looking for less-toxic approaches for your pest problem?

■ **Common-Sense Pest Control** (1991), by William Olkowski, et al, is widely considered the definitive resource for managing pests less-toxically. From weeds to insects to rodents, this 715-page book examines in valuable detail the pests' life cycles, habitats, and the variety of less-toxic controls available for controlling them. The authors use IPM (Integrated Pest Management) methodology, which allows you to systematically analyze a pest problem, uncover its source, and create long-lasting solutions. This \$39.95

book is between printings. If you can't find it in a bookstore, try used book sources like < www.abe.com > . It's also at the Sonoma County Library.

■ Another useful resource is **The Gardeners' Guide to Common-Sense Pest Control** (1996, \$19.95), which pulls the gardening items from the above book.

■ For more about these books, and lots of other great information about alternatives, contact **Bio-Integral Resource Center (BIRC)** at (510) 524-2567, < www.birc.org > .