



THE NEXT STEP Toward a Healthier Future

A BI-MONTHLY NEWSLETTER OF THE SEBASTOPOL TOXICS EDUCATION PROGRAM

Controlling Ant Invaders

According to a recent Stanford study, pesticides are no more effective than household cleansers in reducing home ant populations – and, whatever you do, it can be hard to keep ants out during winter rainstorms and summer droughts, because they're coming in for shelter.

So how can you control home ant invasions? Follow these steps:

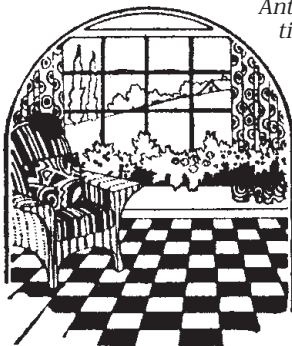
■ **Be scrupulous about keeping your kitchen clean.**

■ **Eliminate food sources** that attract ants. Put food in sealed containers. Put your pet food bowl in a larger dish filled with soapy water, making a moat that ants can't cross.

■ **Track an ant trail** to where it's coming in the house and plug the holes in the wall, using toothpaste without sugar; diatomaceous earth (see right); duct tape; or caulking.

■ **Wipe ant trails with cleanser.**

These techniques work in most situations. If ants are still not under control, consider using an ant bait with boric acid, which has low toxicity for humans and mammals. And remember that ants are key components in nature's ecosystems!



Ant study information is from "The Ants Go Marching In", Eric Brazil, San Francisco Chronicle, April 25, 2001. Thanks to Larry Robinson for forwarding this article to us.

The Joys of Diatomaceous Earth

Diatomaceous Earth (DE) can be an inexpensive and easy solution for a variety of home pest insects.

This dust, made from fossilized silica shells, works by getting into an insect's skin and drying it out. It's virtually nontoxic to mammals. However, it is an eye and lung irritant, so see the usage safety tips at the end of this article.

■ **For ants in the house.** Track the ant trail to where the ants enter the house and put DE there. You can also trickle DE along baseboard and window cracks, edges of cupboard shelves – anywhere they're traveling. Rub the DE into the cracks and wipe the excess off with a damp towel. (If you have a terrible infestation, you may want to leave more there.)

■ **For ants in the garden.** If ants are at pest levels in the garden, find the ant nest, dig a few inches down to where the nest is, scatter a handful of DE, then cover it back up. Don't water this area for a while as DE washes away with water. Also use DE along borders to discourage snails!

■ **For fleas.** Sprinkle DE lightly on your carpets, work in a bit, then vacuum. (If you're going out, you can vacuum when you get home.) This kills fleas when they hatch – and defleas your vacuum bag! You can also work in a little DE around your pet's neck for fleas (unless your pet has dry skin or other skin problems). Avoid eyes and nose (it's dry and dusty!).

See Diatomaceous Earth, over

Consumer Alert



2,4-D Is Not 4 U

The herbicide **2,4-D** (2,4-dichlorophenoxyacetic acid) is the most widely-used in the world. Almost 60 million pounds are used each year in U.S. homes, farms, businesses, and public land – including about 9 million pounds used in an estimated 35 million lawn and garden applications. 2,4-D is sold under a variety of brand names, including "weed and feed" fertilizer products that you might not even realize contain a pesticide!

We're all widely exposed to 2,4-D, through contaminated air, water, soil, food, home, and work use. These exposures add up! National tests have found 2,4-D in 12% of adult urine samples; 60% of air samples; and 19 of 20 river basins sampled. 2,4-D has been found in runoff water (from roads, golf courses, farms, and homeowners); groundwater; composted grass clippings (after a year of composting); and food. Users have the herbicide in their bodies, clothes, cars, and houses. A recent study found 60% of houses sampled had 2,4-D in carpets – a place that children and pets spend a lot of their time!

2,4-D works by disrupting a weed plant's biological process. Unfortunately, it can also disrupt the biological processes of humans, pets, and wildlife, causing harm to many "nontarget" species – including us!

■ **Cancer.** Studies have show increases in the cancer non-Hodgkin's lymphoma (NHL) for farmers, plant workers, professional lawn care applicators, and gardeners using 2,4-D. NHL is the sixth most common cancer in the U.S., and rates are rising.

■ **Nervous System.** 2,4-D disrupts the activity of nervous system chemicals (like serotonin)

See 2,4-D, over

STEP Updates

Thank you to the 268 Sebastopol residents who returned your STEP Survey cards!

What were your responses? 93% said you were glad that Sebastopol has chosen to reduce pesticide use, and 95% found the first issue helpful and interesting. Of those responding about their pesticide use, 63% said they didn't use pesticides at home, and 37% did, about half using natural pesticides. People also offered excellent ideas for future issues and appreciation for our work.

Please keep your feedback coming. Your input helps us create a newsletter that's useful for you!

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Check out the beautiful new plantings at the town plaza and police station – created to demonstrate organic weed abatement! And come lend a hand at future plantings, held the first Sunday of each month, 12-4pm. For information and locations, call 829-7069 or 829-2108.

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You can help make STEP possible! Write an article, share your success story, or be a liaison to businesses or schools. Together we can support our community's conversion to less-toxic alternatives! To find out more, call 829-2999.

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.

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Discouraging Yellow Jackets

Are yellow jackets interrupting your picnic? Joan Betts, head of Cinderella Nursery (a Master Gardener project providing free plants to local schools) offers a simple and effective solution.

Take a shallow aluminum baking pan and add an inch of water and two tablespoons of liquid dish soap. Place an old ruler, piece of lathe, or sturdy stick across the top of the pan. Tie a piece of raw bacon or other meat to the underside of the wood.

How does it work? The meat attracts the yellow jackets, and when they fly under the stick to eat, their wings get wet and soapy, causing them to fall into the water and drown. They can escape from water, but not if soap has been added to it.

You can also find bait traps at local stores that work in a similar way. And, if yellow jackets are really at pest levels, you can wear protective clothing and find their nest, then spray natural pyrethrum on it (after sunset when they're all inside). All gone!

~ Nan Fuchs

Diatomaceous Earth, continued

Diatomaceous earth is sold in bulk by the pound at nurseries specializing in organics. A couple of bucks will go a long way!

USAGE TIPS: DE is an eye and lung irritant, so it's safest to use goggles and a dust mask if applying significant amounts. Avoid using DE in a breeze blowing towards your face. Use DE sparingly; a little goes a long way, and it can harm beneficial insects too. If you have dry skin, consider using gloves. If you have asthma or other sensitivity to powders, get someone else to help you until you get a feel for this very fine powder. And be sure to use gardening (natural) DE, not the swimming-pool grade.

~ Rebecca Dwan

2,4-D, continued

and can cause various neurological effects. For instance, a homeowner developed peripheral neuropathy after kneeling on her 2,4-D treated lawn. Unable to walk for weeks, she lost 20 pounds and three years later her physician says she is only 2/3 recovered. Maturing nervous systems seem particularly vulnerable.

■ **Other health harm.** Studies have shown links between 2,4-D and reduced and abnormal sperm; birth defects; reduced births; and immune system changes (such as decreased T-cells). 2,4-D inhibits liver enzymes that detoxify hazardous materials, and reduces the blood's ability to carry oxygen and form clots. Products can be severe eye irritants and cause skin lesions.

■ **Harm to animals.** 2,4-D has been linked with increased risk of lymphoma in dogs; reduced hatching, growth, and survival of birds; and harm to wildlife and livestock (including deer and horses), directly and through poisoning their food. It's toxic to crabs (including Dungeness) and acutely toxic to fish (salmon are particularly sensitive), both killing and reducing growth and survival rates. It's also acutely toxic to earthworms and harms beneficial insects like honeybees.

■ **Harm to other plants.** Very small amounts of 2,4-D can severely damage nontarget plants, such as farm and garden food, landscaping and wild plants (including endangered species), and more. It's been shown to move in air up to 50 miles and can cause genetic damage to crops, reduce yields, and increase plant disease severity and insect damage.

So, before applying 2,4-D, remember these side effects, and explore less-toxic approaches that might be better for everyone. And look carefully at fertilizer labels to be sure you're not applying 2,4-D inadvertently!

~ Patricia Dines

SOURCE: "2,4-D Herbicide Factsheets," *Journal of Pesticide Reform*, 1999. < www.pesticide.org > (541) 344-5044

