CONTRA COSTA MASTER GARDENERS

December 18, 2010

Originally published in the *Contra Costa Times*

Boric Acid for Ant Problems

by Contra Costa Master Gardeners

All pesticides are toxic. Careful use of low toxicity baits can be effective in the home.

SUMMARY

To control ants indoors, first try exclusion by caulking and otherwise closing up openings where they enter. Cleaning up food sources will also help. If baits are necessary, boric acid is an effective yet low-toxicity control.

Q: With the recent rains and cold weather my house has been invaded by ants. I heard that you can use boric acid to kill ants in the house, and that it's non-toxic. How do I use it ?

A: All pesticides are toxic; that's how they work. Boric acid, however, has low toxicity to humans, pets, and non-target species when used properly, and it is effective on a wide range of insect pests in the home, including ants and cockroaches. The key words here are "when used properly". Read the directions on the package and follow them exactly. Never leave any pesticide, including boric acid, where children, pets, or wildlife can get into it.

Try Exclusion & Clean-Up First:

It is common for ants to invade living spaces as winter approaches. Ants provide valuable services in the environment, however, if their nests are flooded or their food sources disappear, they invade homes in search of warm, dry nesting places and food. Any management program should include closing up cracks and other openings to exclude ants, and cleaning up sources of food such as spills, crumbs, garbage, dirty dishes, and pet food. If these other food sources are present, it may be difficult to get ants to take ant baits.

The ant most commonly associated with household invasions in California is the Argentine ant, although other species invade homes too. To identify the species of ant you can go to: http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7411.html.
Knowing a little about ant behavior and ecology will help you manage the ant population. The tendency of the Argentine ant to form columns as they invade is actually helpful. It will make it easier to use ant baits.

Boric Acid Is Less Toxic:

There are several active ingredients in ant baits, but boric acid is a good choice because it is effective and relatively non-toxic. Read the product label to see what the active ingredient is. Those containing boric acid will generally include the word boric or borate on the label. Boric acid is toxic to plants so should not be used around them.

"A thin layer of boric acid dust, widely spread, will be more effective than clumps of dust. The ants walk through the dust and get it on their bodies, and then ingest the dust when they clean themselves."

Several types of boric acid pesticides are available, including dusts, liquids, pre-filled bait stations, and gels. Each formulation has its own uses.

Pesticide dust can be useful in basements, under houses, in wall voids, and other places where it won't be unsightly. It should only be applied where it will not get wet, because once wet, it is largely ineffective. A thin layer of the dust, widely spread, will be more effective than clumps of dust. The ants walk through the dust and get it on their bodies, and then ingest the dust when they clean themselves.

Boric Acid Gels & Liquid:

Boric acid gels can be applied in cracks and crevices, or can be applied to bait stations or even small pieces of cardboard or jar lids. Gels should be used close to the invading column where the ants will discover it readily. Exposed to air, gel will remain effective for about three days, so it needs to be replenished frequently.

Liquid bait, usually sugar water with boric acid, can be applied to bait stations or small containers, and should be placed right in the column of ants so they can't miss it. The liquid may need to be replenished every few hours or days, depending on how fast the ants eat it. It remains effective as long as it is liquid.

Prefilled bait stations might be the easiest kind of boric acid pesticide to use, and there are several brands available. Following the manufacturer's directions, place one or more bait stations on or near the column. If ants don't appear to be eating the bait after several hours it is possible they aren't interested in the attractant (usually sugar- or protein-based) at the moment, so try another brand. It's useful to keep two or more brands of ant baits on hand, sealed in an airtight container, if you have frequent invasions.

Whether dust, gel, or liquid, worker ants that are out gathering food for the colony will pass along some of the poison they ingest to other ants when they share the food they've collected. Boric acid is a slow-acting poison, so it doesn't kill before it can be spread to the larger population, and this is what makes it so effective.

Once the invasion is over (you'll see fewer and fewer ants until they're all gone after several days), pick up all baits and either take them to a household hazardous waste facility or seal them in an airtight container for use the next time they're needed.

For More Information:

Learn more about using boric acid on household insect pests at: http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7411.html.

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