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Diatomaceous Earth for Pest Control

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The oldest pesticide still works!

SUMMARY

Diatomaceous earth (DE) is an effective pesticide with very low toxicity to mammals. It works by mechanical action, abrading an insect's waxy protective coating, causing dessication & death. <u>Always</u> wear protective gear (dust mask, gloves, & goggles) and follow package instruction when applying.

Q: I don't want to use any kind of chemical pesticide in my house because of my kids and pets. Someone said I could use a product called diatomaceous earth. Is this effective on ants and cockroaches? Where do I buy it & how do I use it?

A: Diatomaceous earth (DE), might be the world's oldest form of pest control. Dusts in general, and DE in particular, are effective against a wide variety of crawling insect pests. Birds and other animals have known this for eons; hence, the popularity of dust baths to kill mites and other body irritating pests.

About Diatomaceous Earth (DE):
DE is usually found as a soft, gray, chalky rock and is mined from geological deposits made up of the fossilized shells of diatoms, single-celled aquatic organisms that are as much as 20 million years old. The rock is processed into dust for many uses, pest control being only one. Around the home it is also used in swimming pool filters, but that type of DE is processed differently and does not work for pest management. You will need to look for products specifically made for pest control, which are usually available in bags or cartons in the pesticide aisle. It can be used both indoors and in the garden, but here we'll deal with indoor pests since that is what you asked about.

How DE Works:
DE is effective on cockroaches, ants, earwigs, silverfish, crickets, millipedes, centipedes, bedbugs, and many other crawling pests that sometimes invade our homes. DE does not act as a poison on pests: it works by abrading the waxy coating from the outer skeleton of the insect, which then dehydrates and dies. If insects ingest DE, it is also lethal. DE has very low toxicity to mammals, including humans, but it can be an irritant so be sure to wear a mask, gloves and goggles and follow the instructions on the product label.

"Because DE kills insects in a mechanical way, rather than by poison action, it is unlikely to cause insects to build up resistance, and this makes it particularly useful for long-term control."

Effective Use of DE:

In order to be effective, DE must be dry, and it must be applied in a wide but thin layer. Pests will avoid DE if they can, so the best application makes it impossible for them to avoid. Use a bulb duster, a plastic condiment dispenser bottle, or a dry, empty plastic squeeze bottle. Appropriate applicators are usually sold where DE is sold. Fill the container no more than half full, and then use a squeezing, "poofing" motion to dispense a thin layer of dust in areas where pests are found or may be hiding. Include such areas as cracks and crevices, behind and beneath stoves, refrigerators, sinks, cabinets, garbage cans, window frames, attics, basements, and in wall voids. You can squeeze the dust into wall voids by removing electrical outlet and switch covers, dusting inside the wall, then replacing the covers. Try for a light coating, widely spread. Hit insects directly where possible. If you have an ant invasion, dust the trail of ants with DE.

Good for Long-Term Control:

Insects walk through the dust, and bits of it cling to them because of electrostatic attraction. Nesting insects, like ants, will carry the DE back to the nest where it will be spread around. DE kills slowly and it might take a few days. Because DE kills insects in a mechanical way, rather than by poison action, it is unlikely to cause insects to build up resistance, and this makes it particularly useful for long-term control.

For More Information:

For more information about using DE, see UC Pest Notes for specific pests:

http://ipm.ucanr.edu/PMG/menu.house.html

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