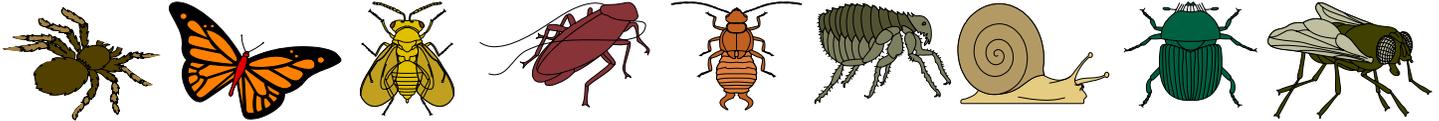


Pest Management At Home

Insects have existed for more than 390 million years - 150 million years before the first humans. There are 77,000 species of insects in North America alone. Insect allies, though, far outnumber what we may consider "pests". Bees and flies pollinate flowers; ladybugs, praying mantis and spiders eat unwelcome intruders and parasitic wasps, such as the Trichogramma, lay their eggs inside pests eventually killing them. Certain insects break down decaying matter such as the dung beetles and many species are food for birds and other animals. All insects are beneficial. It is only when we do not want them as a visitor in our homes that we describe them as a "pest". Complete elimination of the pest is neither feasible nor biologically possible. Insects produce populations resistant to many pesticides after repeated sprayings therefore making the use of pesticides a short-term solution. Finally, the use of pesticides also kills the beneficial insects which are the pest's natural enemies. It's important to remember that **NOT ALL BUGS ARE BAD**. When you decide "enough is enough" and want to call a halt to "pesty" insects in your home realize that there are pesticides and control techniques that are less-toxic to humans, pets, and beneficial insects.



A Poison Is A Poison Is A Poison...

A note of caution: Pesticides are poisonous products and should be respected as such. They are designed to kill and are toxic to humans as well as the target pests and beneficial insects.

EXTERMINATION: AT WHAT COST?

An example of the use of a broad-spectrum pesticide is Chlordane. Chlordane is a synthetic pesticide that was once used by homeowners to kill a wide variety of pests, especially termites. It did such a good job at ridding our homes and gardens of pests that it was the "spray of choice" for 20 years and many times misapplied by the untrained professional.

It is now known that Chlordane can make people very sick, depending on the length and concentration of exposure. Chlordane does not dissipate into thin air - it becomes part of the food chain and a part of us. Even today, Kansas Department of Health and Environment scientists catch fish from the Kaw River that still test positive for Chlordane. The EPA outlawed the use of Chlordane in 1988.

Prevention

You've heard it a million times but prevention really pays. Insects need food, water and shelter. Change the environment and the pest will usually leave.

- Keep your house clean, especially in the kitchen and bathroom.
- Store food in containers that close tightly
- Wipe up crumbs and spills.
- Store your organic garbage separate from your paper waste and in a sealed container.
- Rinse out food containers before putting them in the recycling bins.
- Fix leaky faucets, screen windows and caulk cracks so insects cannot get inside your home.
- Trim trees and bushes back from touching the house.
- Overgrown landscaping is a bridge for the pest to arrive for dinner in your home.

Vacuum! Vacuums are tremendous tools for collecting fleas and cockroaches adults and egg casings. Vacuum the floors, the upholstery, cracks and crevices and even your pet (for fleas). Then seal up the bag in a plastic bag and dispose of it.

Integrated Pest Management

Integrated Pest Management or IPM is an approach to pest control that utilizes regular monitoring to determine if and when treatments are needed. IPM employs physical, mechanical, cultural, biological, and educational tactics to keep pest numbers low enough to prevent intolerable damage or annoyance. Least toxic chemical controls are used as a last resort.

Least Toxic chemicals are those that affect the targeted pest only and not other creatures or affect non-target species only at very high concentrations. Least toxic chemicals also tend to break down into harmless substances faster than synthetic pesticides. These chemicals can be purchased at garden stores, discount retail stores and grocery stores and from some pest control suppliers. To the right are some examples of in-home use.

INSECTICIDAL DUSTS

Boric acid is one of the safest roach control products to use around humans and pets. Boric acid acts as a stomach poison. Cockroaches have not developed a resistance to it as they have with commercial pesticides. It can be sprinkled in hard to reach places such as the back corner of the cabinet or under the sink. If kept dry, it remains effective for the life of the building.

ATTRACTANTS

Bait/Pheromone traps work by luring the pest to come to them and eat the poison.

Growth Regulators work by disrupting the development of the target pest. They are insect specific and harmless to non-target species.



Ridding Your Home of Pests

DON'T PANIC IT'S ORGANIC!

Preparation types for homemade sprays.

Infusion: An infusion spray is a simple way to get immediate relief from pest or disease attacks on your plants. Learn to blend different plants to achieve the best results. Pour boiling water on to the insect deterrent plant (listed below) and steep for 1 hour in a cooking pot. Strain and bottle. Store in a cool dark place. Use 1 ounce per pint of water.

Decoction: Simmer the plant for 2 hours. Always start out with more water than you need to allow for evaporation. Makes a more concentrated mixture.

Tincture: A tincture is even a more concentrated extract in a liquid form. It is made through a process of using a natural liquid that will dissolve the extract into a thick liquid form. Use alcohol as a base, then evaporate the alcohol leaving behind a strong extract. Use 1 ounce per 50 gallons of water for a spray.

HERBS TO GROW THAT ARE INSECT DETERRENTS:

BASIL: Flies
CATNIP: Ants
CHIVES: Aphids
LAVENDER: Many Pests including Moths
LEMON BALM: Aphids
MINTS: Snakes/Ants
ROSEMARY: Many Pests

RUE: Flies
TANSY: Ants/Mosquitos
WORMWOOD: Many Pests

ALL-PURPOSE BUG-CHASER SPRAY FOR PLANTS

Sprays made from a mixture of hot, spicy, or pungent ingredients are often effective against aphids and caterpillars.

Yield: about 1 quart

1 to 3 whole garlic bulbs
1 small onion
1 tablespoon cayenne pepper
1 quart water
1/2 teaspoon liquid non-detergent soap

Puree garlic and onion in the blender or food processor. Add cayenne and water. Allow mixture to steep for 1 to 12 hours. Strain and mix in soap. Spray plants thoroughly, especially undersides of leaves and crevices where pests lurk. This spray will keep for several days if stored tightly sealed in the refrigerator.

SPIDERS

Most spiders are harmless yet helpful as they keep other insect under control. But if you wish to reduce the number of spiders in your home, try these tips.



Screen windows and repair caulking

Remove their food source— other insects!

Check firewood, plants, and cut flowers before bringing them into the house.

Regularly sweep or vacuum behind appliances, furniture, and other dark hiding places where spiders like to congregate.

Vacuum webs and egg cases found in the home and empty the bag immediately into a tightly sealed plastic garbage bag.

Even better, remove the egg cases to your garden where they will grow to be beneficial predators.

To prevent venomous spider bites check and shake out shoes and clothing that have been stored. Don't poke your hand or foot in a dark hole. Do not leave clutter, such as dirty clothes or newspapers on the floor.

ANTS

Eliminate outdoor food and nesting sites.

Make sure firewood and tree branches are not in contact with the house. Don't let grass or other vegetation grow up under the lower edge of the siding or through the basement windows.



Caulk common ant entry points such as windowsills, thresholds and baseboards.

Plant peppermint or tansy at entryways, or crush their leaves and sprinkle them at the entrances.

Ant Traps

These are safe, nonpoisonous traps.

Yield: 4 to 6 traps

1/4 cup sugar
1/4 cup baking yeast
1/2 cup molasses

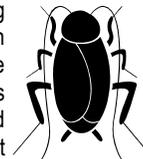
Mix all ingredients. Smear a thin layer of the mixture on index cards. Place the cards, syrup side up, in areas where ants travel. Change the card as desired.

Ant Stopper

Use ordinary white vinegar. Go to the point of entry. Liberally wash down the area where ants congregate.

COCKROACHES

Eliminate their drinking water supply. When cockroach shelters are found, accessible areas should be vacuumed and cleaned. The most common cockroaches found in American homes are the German cockroach and the American cockroach.



Caulk or otherwise plug all small cracks around baseboards, shelving, sinks, cupboards, pipes, and bathroom fixtures.

Use boric acid. Sprinkle it in places where kids and pets cannot get to it. Apply lightly with a gravy baster. The baster will reach into tight corners in cabinets and behind stoves and refrigerators.

DON'T FEEL LIKE COOKING?—GO SHOPPING!

Alternatives to poisonous pest controls can be found at local retail outlets listed below:

Advanced Pest Management
PO BOX 3503
Lawrence, Kansas 66044
785-841-2847

Community Mercantile Co-op
9th & Iowa
Lawrence, Kansas
785-843-8544

Hummingbird Song
611 W 9th
Lawrence, Kansas 66049

RESOURCES

Rodale's All New Encyclopedia of Organic Gardening
Rodale Press, 1992

Common-Sense Pest Control
Olkowski, William
The Taunton Press, 1991

Rodale's Book of Practical Formulas
Rodale Press, 1991

Parks Success with Herbs
Geo. W. Park Seed Co., 1980

Nontoxic, Natural, & Earthwise
Debra Lynn Dadd, 1990