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Controlling Pests Around the Home

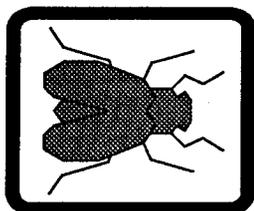
Non-chemical relief from animal and insect pests

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With the growing concern for the environment and the move away from chemicals, many Minnesotans are looking for alternative methods of caring for their households. Dial U, the plant and insect information service of the University of Minnesota, has gathered the following information on non-chemical methods of preventing or treating household and yard pests.

HOUSEHOLD PESTS



Ants -- Bait with 2 parts boric acid in 98 parts food attractant. Select the food attractant by offering ants various materials (grease, jelly, peanut butter), choosing the material most frequently selected by the ants.

Boxelder bugs -- Spray clustered insects on buildings with laundry detergent in water (about one-half cup of detergent like Tide or Dreft to 1 gallon of water). Test on a small, inconspicuous area as detergents may discolor some siding. Vacuum boxelder bugs found in the home (remove and properly dispose of the vacuum bag) or remove by hand. Seal cracks, spaces and other potential entry points around the home.

Carpenter ants -- Repair moisture-damaged wood. Do not store firewood on the ground, especially near the home. Keep stored lumber dry.

Carpet beetles and clothes moths -- Dry-clean or launder clothing before storing. Freeze, dry-clean or iron infested articles of clothing. Use mothballs when storing susceptible clothing.

Centipedes -- Eliminate their prey, primarily sowbugs. Dry out damp areas with a fan or dehumidifier. Repair or seal cracks and spaces around the building where centipedes may enter. When found in the home, eliminate with a broom or swatter.

Clover mites -- Wipe up mites (generally found around windows) with a damp cloth. Keep 18-24 inches of soil bordering the home's foundation loose and free of grass.

Crickets -- Keep lawn well-mowed and maintain a weed-free area around the home. If using outdoor lights near the home, use a non-attracting, yellow light. Repair or fill holes or cracks in the foundation, walls or other areas where crickets may enter the home.

Fleas -- Keep pets and pet-living areas clean; thoroughly vacuum infested rooms.

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Household Pests--continued

Flies -- Keep kitchen and other household areas clean. Pour boiling water down drains to eliminate drain-infesting flies. Repair holes in screens and other areas where flies may enter the home. Store garbage in tightly covered receptacles.

Ground beetles -- Keep firewood and debris away from the home. Repair holes in the foundation where beetles may enter. When found in the home, remove by hand or vacuum.

Pantry insects -- Most dry food items including cereal, oatmeal, cookies, crackers, pancake mix, flour, cornmeal, rice, raisins, pet food and birdseed are susceptible to infestation. In addition, poison baits used to control rats and mice, dry plant material and decorative plant material such as Indian corn frequently attract pests.

Dispose of infested food products. Store uninfested food in tightly-sealed glass, metal or plastic containers. Clean pantry thoroughly removing crumbs and debris from cracks and crevices.

Heat- or cold-treat foods more than 60 days old. Foods such as cake mixes and spices packaged in their original containers should be cold-treated by exposing them to 0 degrees Fahrenheit or lower temperatures for 3-7 days depending on the size of the package. Dried fruits can be heat-treated by placing in a cheesecloth bag and dipping in boiling water for approximately 6 seconds.

Sowbugs -- Reduce moisture through dehumidification. Remove decaying vegetation such as lawn clippings or fallen leaves from around foundation. Repair or fill cracks or holes in foundation, screens or other areas where sowbugs may enter the home.

Spiders -- Keep household areas clean. Eliminate their hiding places and prey such as sowbugs. When found in the home, eliminate using a broom or swatter.

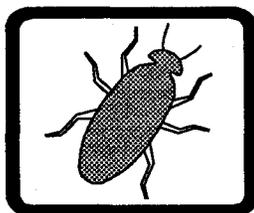
HOUSEPLANT INSECTS



Do not bring infested plants into the home!

For plants in the home, hand remove *caterpillars*, *slugs* and other pests; for *spider mites*, wash leaves with a mild detergent solution, swab with rubbing alcohol or spray with Safers soap solution; for *scales* and *mealybugs* remove with rubbing alcohol or spray with Safers soap solution; for *aphids* spray plants with a Safers soap solution; for *fungus gnats* and *springtails*, allow soil to dry to a depth of 1 inch before watering; re-pot plants affected by *millipedes*.

OUTDOOR INSECT PESTS



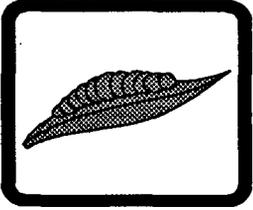
Black flies -- Wear light colored clothing, long-sleeve shirts and long pants; activity is less on windy days and in direct sunlight. Avoid wearing perfume or aftershave lotion.

Chiggers -- Thoroughly bathe after returning from an area likely to be infested with chiggers; they prefer areas with thick, low vegetation and an abundance of moisture and shade. Guard against chiggers by applying chemical repellents with DEET to clothing.

Mosquitoes -- Remove yard receptacles that hold water such as old tires which serve as breeding sites. Avoid areas with deep shade. Reduce outdoor activity for 2 hours after sunset when mosquitoes are most active.

Ticks -- Keep pets as tick-free as possible. Keep grass and vegetation short. Eliminate mice and other tick hosts. Guard against ticks by applying chemical repellents containing DEET to clothing, especially shoes, lower pant legs, and waist areas.

GARDEN AND LANDSCAPE PESTS



Aphids -- Remove aphids by dislodging with water spray. Spray with Safers soap solution. Preserve natural predators by identifying and protecting lady bugs and lacewings in their immature stage — it is important not to mistake predators for pests. Plant resistant varieties of honeysuckle such as Freedom or Clavey's Dwarf which deter witches broom aphids.

Apple maggot -- Remove fallen apples. For a standard tree, hang 8 sticky apple traps that you purchase, or make them using a 3-inch diameter sphere painted bright red or black and coated with a sticky substance such as Tanglefoot or Stickem Special, available in garden centers.

Bronze birch borer -- Water birch frequently. Prune out infested small limbs in August or when the birch is dormant. Pruning is not effective if larger limbs or the main trunk are affected. Plant resistant varieties such as River birch. Select proper sites to plant birch since they survive best in moisture-abundant areas.

Cabbage looper and imported cabbage worm -- Remove caterpillars by hand. Apply *Bacillus thuringiensis*, a natural material available under a variety of product names.

Colorado potato beetle -- Remove the immature and adult stages by hand. Apply *san diego Bacillus thuringiensis*, a natural material. The *san diego* variety is specifically for beetle adults and is available as *M-ONE*.

Cutworms -- Place cardboard collars around transplants making sure the cardboard extends at least 2 inches above and below ground (the center core from paper towels work well). Hand remove cutworms hiding in burrows near plants during the day and those found above ground at night.

Elm bark beetles -- Remove and properly dispose of dying elm trees. Debark elm wood.

European corn borer and corn earworm -- Apply *Bacillus thuringiensis*, a natural material available under a variety of product names.

Flea beetles -- Control weeds.

Hornworms -- Handpick caterpillars. Apply *Bacillus thuringiensis*, a natural material available under a variety of product names.

Iris borer -- Remove old stalks and plant debris in late summer. Remove and destroy any infested plants.

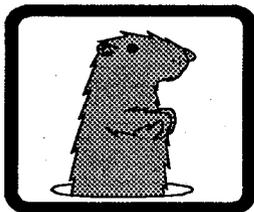
Picnic, sap and fungus beetles -- Remove damaged and overripe fruit and vegetables. Regularly harvest fruits and vegetables as they ripen.

Rose chafer -- Remove by hand. Place a cheesecloth barrier around plants to be protected during the chafers flight period, usually late May to mid-June.

Slugs -- Control soil moisture by watering only when necessary; remove by hand. Remove dead leaves and other hiding places. Cups filled with beer sunk in the ground will attract and drown slugs. Place boards and shingles on the ground and remove any slugs attracted to such areas.

Squash vine borer -- Slit stem lengthwise at the point of attack, remove larvae from vines by hand and cover vines with moist soil to encourage new growth.

WILDLIFE PESTS



Always respond to problems as quickly as possible. The longer you wait, the more difficult it will be to change an animal's behavior.

Bats -- Repair all cracks or holes in the home. Leave the largest hole open for several days. After bats have left the area in the evening, close up the final opening; do not do this in April through July when young may be trapped inside the building.

Deer -- Protect individual shrubs and young trees with chicken wire or hardware cloth (a pliable wire screen) — well-built and maintained electric fences are effective for large areas when damage is severe. Use natural repellents such as Big Game Repellent or Hot Sauce on vegetation as soon as damage is observed. Note that repellents may alleviate a damage problem but will rarely solve it.

Mice and rats -- Trap or use glue boards. Keep household areas clean and free of food particles (pet food, birdseed and other possible food sources should be protected). Repair cracks or holes in foundation, screens or other areas where mice or rats may enter the home.

Pigeons -- Use sticky substances such as Tanglefoot where pigeons are likely to roost. String monofilament line (fishing line) 3-5 inches above areas where they roost. Use "porcupine" wire such as Nixalite or Cat Claw to prevent birds from roosting.

Pocket gophers -- Trap and/or periodically deep cultivate 9-14 inches of soil to disrupt burrow system.

Rabbits -- Live trap. Place cylinders of netting or hardware cloth around individual plants. Use heavy paper or plastic tree wrap around the trunks of individual trees. Build a chicken wire fence around the entire garden. For winter protection, apply natural repellents such as Hot Sauce on dormant trees and shrubs. Remove piles of brush, wood, or debris that may be providing cover for rabbits.

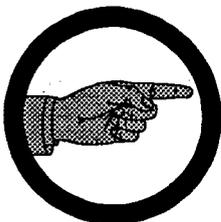
Skunks -- Close entry points to buildings. Eliminate possible denning sites. In severe cases, live trapping may be necessary to eliminate the problem.

Squirrels -- Live trap. Repair all holes in screens, attic, and eave areas and the foundation of the home. Trim branches of trees that provide access to the roof.

Woodchucks -- Place an electric fence 5 inches off the ground and about 5 inches in front of a chicken wire fence that extends 3-4 feet above ground and is buried 10-12 inches into the soil. Live trap or use leghold traps.

Woodpeckers on siding -- Quickly deal with the problem. Check for and eliminate insect problems. Harass with water spray. String reflective tape along wall; hang nylon netting from eaves to wall to protect damaged area; and use metal flashing or hardware cloth to protect area from continued damage.

NEED MORE INFORMATION?



We've attempted to provide enough information to help you quickly and effectively deal with the most common animal and insect problems. If you need additional information or details, ask your local county extension agent, an experienced nursery person, or in the Twin Cities, call the Dial U Insect and Plant Information Service, a program of the Minnesota Extension Service, University of Minnesota. Dial U experts offer thoroughly researched, personalized answers to your questions about gardening and household pests. Experts are available during the summer, Monday-Friday, 9 a.m. to 5 p.m. at 1-976-0200. Winter hours are 9 a.m. to 2 p.m. A \$2.50 fee is added to the caller's phone bill to help defray the cost of this non-profit program.