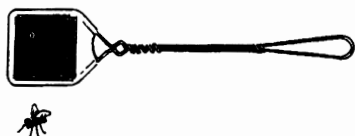


# 3 TOOLS FOR CULTURAL PEST MANAGEMENT



## INDOOR TOOLS

Sanitation is one of the key ways to manage pests indoors without the use of pesticides. Make cleanup a habit. A routine time set aside for cleanup every day can make the job easier. Preventing unnecessary clutter, especially around entryways, can do much to prevent certain pests from gaining entry into the home. Many insects and household pests like to stay in dark places and lay eggs in warm, dark, undisturbed areas. Vacuuming or sweeping regularly, including under furniture, around baseboards, in furnace air ducts, closets, food storage areas, and pet resting areas, will discourage pest populations from building up. Regularly cleaning areas where wall and ceiling meet, especially in corners, will also help remove spiders and discourage web building. If you vacuum up insects or spiders, empty the vacuum bag so that pests do not climb out while in the storage closet. Storing food in tightly closed insect- and rodent-proof containers is a good way to help prevent pests.

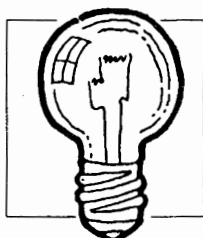
Food spills should be cleaned up quickly. They are easy to remove with detergent and water if not allowed to harden. Wet mops and sponges are useful for cleaning up many spills. Avoid letting mildew grow on shower curtains, wall surfaces, and around windows. Washing surfaces with warm, soapy water; wiping with a disinfectant; and reducing humidity by using fans or dehumidifiers can help. Insects such as booklice feed on microscopic molds and mildew, and if the proper climatic conditions exist, populations will increase very rapidly. Removing food

and perspiration stains from fabric can also make it less palatable to insects such as clothes moths and carpet beetles.

A flyswatter is a wonderful device for taking care of occasional pests in the home. Sticky tapes are also available to collect insects that land on them and, although they may not be a pleasant addition to the dining room, they may be useful in a porch or pantry or even an entryway. Be sure to place them high enough so people will not come in contact with the sticky paper. They should be replaced when they become filled with insects.

Window screening keeps out many insects. Be sure screens fit snugly and are in good condition. Close doors when entering or leaving. Many insects are able to sneak into a house in the few minutes a door is left ajar.

Outdoor lighting can attract many insects to the vicinity of the house.



Switching to a yellow "bug light" bulb will sometimes reduce the numbers attracted. These bulbs may be especially useful if you live near a body of water

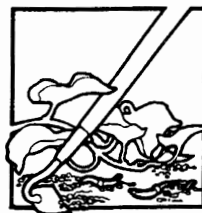
where large numbers of aquatic insects emerge at certain times during the summer.

See Part II, Pesticide Guidelines, for information on pesticide application equipment.

## OUTDOOR MECHANICAL AND PHYSICAL TOOLS

Handpicking and destroying is a method of pest management in which you become the "tool." Removing infested plant parts and insects can be effective for certain pests. Removing weeds and crop refuse eliminates sources of plant pathogens.

Spades, hoes, tillers, and so forth are useful tools. Spading or cultivating the soil uproots weeds, buries disease organisms, and exposes insects to birds, other predators, and adverse weather condi-



tions. Fruit trees grown without weed competition show marked increases in growth and vigor.

Many pruning tools are available. Be sure to choose the proper size tool for the job. Pole pruners are useful for tree branches that are too high to reach otherwise. Hand clippers are useful for smaller trees and shrubs. Be sure to follow all safety precau-

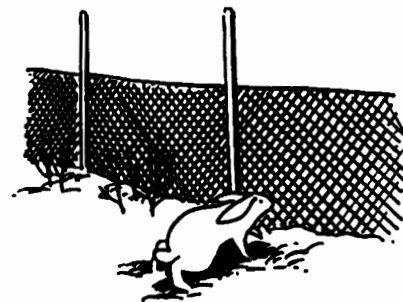


pruning tools

tions when using any tool. Prune properly so tree wounds heal quickly.

For plant pathogens, disinfect pruning tools between cuts.

Various fencing designs are useful for keeping animals out of gardens or off plantings. Plant guards may keep rodents from girdling trees, and some may also prevent insects such as borers from laying eggs on tree trunks. Row covers of many types are available (see Chapter 12, "Vegetable Pest Management") and many block pests from the crop or planting. Netting is especially useful for keeping birds out



Adequate fencing

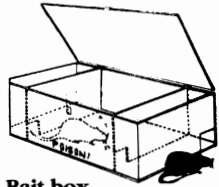
of fruit plantings and also prevents deer damage to ornamental shrubs.

Sticky barriers are sometimes used on tree trunks to prevent crawling insects from reaching the foliage, and mechanical devices (such as burlap bands) can provide places for insects to hide so they can be collected and destroyed easily. Spraying water from a hose can dislodge aphids and spider mites from some plants.

Numerous mulching materials are available (see Chapter 14, "Weed Management"). Weed competition is a major determinant of whether young plants will survive and grow vigorously. Light-reflective mulches such as aluminum foil can keep aphids at bay.

## Traps

Various traps continue to be useful in pest management. Sticky traps (e.g., flypaper and roach traps) may be useful indoors to catch pests and monitor pest activity. Mechanical traps for rodents, including snapback mouse and rat traps and live traps, provide a quick way to remove pests without



Bait box

poison baits. Live traps are also available for wildlife. In New York State, however, it is illegal to possess or transport captive wild animals without a special

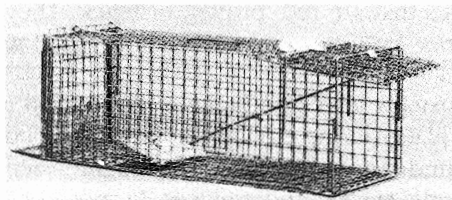
license. One option is to hire a licensed animal control specialist to capture and remove nuisance wildlife.

**Sticky traps.** Sticky traps are an option for home gardens. They may be purchased commercially or may be handmade. Traps for whiteflies, when properly placed, may reduce the population enough that no other control measures are necessary. It is important to put traps in the right place and to renew the sticky surface or discard them when full.

**Lure traps.** Home gardeners growing apples may be able to control apple maggot with the use of yellow sticky cards and red sphere traps. Lures may be used to enhance the attractiveness of traps to adult maggot flies. The traps are also excellent monitoring tools that are used to determine when apple maggots first appear and to help assess population



Pheromone trap



Live animal trap



Snap-back trap

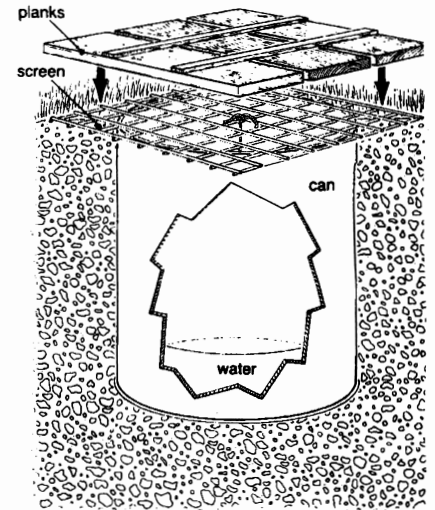
levels, thus aiding managerial decisions. Similar traps are available for other fruit pests. White rectangular traps are useful in controlling tarnished plant bug in fruit trees before the flower petals open. They are also more effective than yellow traps for flea beetle control.

Lures include pheromones. Pheromone traps are basically sticky traps with a sex attractant for the pest species. These traps are excellent monitoring devices and have shown good results for control of certain species such as the codling moth. Gypsy moth traps, however, do not play a significant role in reducing the population and are best used only as a monitoring tool.

Japanese beetle traps have been available for many years. The traps use scented lures (floral scent and sex pheromone) to attract male and female beetles into a bag or canister.

The traps may attract more beetles than they catch, however, so that, if used, the traps should be placed 25 to 50 feet away from the plants you want to protect.

**Pitfall traps.** Various pitfall traps can also be useful, especially for crawling pests. The well-known pie tin-beer traps for slugs are a good example. A small pan or tin is placed in the soil with its top flush with the soil surface and half filled with beer. Beer attracts slugs, which fall in and drown. A similar pitfall trap has been used to monitor black vine weevil populations in nurseries and home landscapes. Pest management consultants may use such traps in designing



Pitfall trap

a program for customers.

Other traps include boards placed in gardens to attract slugs and some insects. The undersides of the boards should be checked daily and the slugs removed and destroyed. Rolled-up newspapers make attractive hiding places for earwigs; again, check daily and remove and destroy insects.

**Electric light traps.** Electric light traps are sometimes useful for night-flying insects. Bluelight or blacklight traps are good monitoring tools but provide little protection for gardens or for people. Electrocuting traps kill many insects—beneficial as well as harmful species—but they also attract insects, not all of which find their way into the trap. These traps have not proven useful for mosquito or house fly control.



Mole trap