

Safe and Natural Pest Control

by Carolyn Swicegood, Hollywood, Florida

More than a billion pounds of pesticides are used annually in the United States. While agriculture is the major user, home use is increasing rapidly for control of cockroaches, ants, mosquitoes, flies, fleas, and other pests. The average gardener's shed contains enough chemicals to kill his entire family several times over. Pesticides are toxic substances used specifically because they do kill or harm living things, and sometimes it seems that they are more harmful to humans than to insects. Insects are adept at becoming immune to pesticides, but obviously we and our companion animals have no such built-in system of dealing with their toxic effects.

Once pesticides are inside our homes, they contaminate our furniture, carpets, and many other surfaces for months or even years. The residues endure because there is no sunlight, fresh air, wind, or rain to break them down or wash them away. The highest levels of pesticide residue are found in house dust, especially carpet dust, making pesticide spray on carpets a long-term hazard to indoor birds. Parrots are exquisitely sensitive to inhaled toxins, reason enough for all parrot owners to diligently avoid the use of synthetic pesticides.

There is abundant evidence of the risk that synthetic pesticides pose to human and animal health. By using natural pest deterrents that have been used successfully for generations, we can minimize the risk to ourselves and our birds. Here are some natural methods of dealing with both indoor and outdoor pests.

Fruit Flies

- One aviculturist came up with this ingenious solution. She places some of the birds' discarded soft food in a plastic Ziploc bag in the evening. By morning, the bag is full of fruit flies and is sealed and thrown out.

Bone meal, baking soda, vinegar, chalk, cloves, oatmeal with a Red lory guarding the supplies.



- Place saucers of fruity fragrant wine with a few drops of detergent in areas frequented by fruit flies. Chardonnay wine seems to be their favorite.
- Place fragrant fruit such as mango peels in the bottom of wine bottles. Fruit flies fly in and cannot fly out.
- Place sticky fly strips (without pesticides) into an old bird cage or basket out of the reach of children, birds, and other pets. Make your own sticky paper by boiling sugar, corn syrup, and water together. Spread the mixture on brown paper grocery bags.

Ants

- Wash countertops, cabinets, and floor with equal parts vinegar and water to deter ant infestations.
- Sprinkle powdered cinnamon on ant trails. Several types of ants won't cross a barrier of cinnamon powder.
- Use powdered charcoal, bone meal, talcum powder, or chalk as a barrier along ant trails.
- Parrot cage legs can be placed within shallow pans filled with water – like small moats that ants cannot cross.
- Locate the ant colony and pour boiling water into it. If you can find a hole where ants are entering the house,

squeeze the juice of a lemon into the hole or crack. Then put the lemon peels all around the entrance.

- Grow spearmint, peppermint, pennyroyal, southern wood, and tansy plants around the border of your home to deter ants and the aphids that they carry.
- Fire Ants – Killing the egg-laying queen is the only way to destroy the colony. Choose a day when the ground is dry and the rain is at least a day away. Then gently sprinkle a teaspoon of instant grits on each fire ant hill. The worker ants carry the grits to the queen who eats them. When she drinks water, the grits expand in her stomach and kill her. The remainder of the hill dies within a day. (From *Tightwad Gazette II* book.)
- Note that different types of ants have different preferences, so what works for one type may not work for another.

Cockroaches

- Prevention -- Close off all cracks around pipes and electric lines where roaches enter the house by using cement, screening, or Brillo pads. Caulk small cracks along baseboards, walls, cupboards, and around

pipes, sinks, and bathtub fixtures. Seal food tightly. Rinse food off dishes that are left overnight. Do not leave pet food out overnight.

- Release small geckos in your home and aviary. Provide dishes of water for them to drink. They will feast upon the roaches at night in the late evening, and sleep out of sight during daylight hours.

- Cut Hedge Apples (Osage Orange) in half and place several in the basement, around in cabinets, or under the house to repel roaches. Osage Orange is a fast growing shrub which can be grown as a hedge around homes and aviaries. The crushed fruits of this plant are said to attract and kill cockroaches.

- Baking soda and powdered sugar mixed in equal parts and spread around infested area is a non-toxic roach killer.

- Diatomaceous earth (DE) can be sprinkled on areas where roaches are seen. Parrots should not breathe the powder as it is being applied in the aviary. One brand available in natural food markets is "Concern" by Necessary Organics, Inc.

- If there are no children or pets in the home and if birds have no access to the floor, the following mix-

tures can be used to kill roaches:

A—Mix together 2 tablespoons flour, 4 tablespoons borax, and 1 tablespoon cocoa. Set the mixture in dishes inside cupboards and behind large appliances where animals have no access.

B—Mix equal parts of oatmeal, flour, and plaster of Paris. Set out in dishes.

C—Sprinkle Borax where roaches travel.

D—Set out dishes containing equal parts of granulated sugar and Borax. Roaches are attracted to sugar, and the boric acid in Borax is deadly to roaches. (Boric acid and Borax are toxic and should not be accessible to parrots and other pets. Baking soda is said to work as well as Borax in this formula and it is non-toxic.)

Seed Moths

- Freeze bird seeds if possible to kill larvae and store all food in airtight containers.

- Place basil leaves or mint teabags in bags or canisters of bird seed to repel moths.

- Place sticky fly strips (without pesticides) into an old bird cage or a closed basket out of the reach of children, birds, and other pets. Make your own sticky paper by boiling sugar, corn syrup, and water together. Spread the

mixture on brown paper grocery bags.

- To trap moths, mix 1 part molasses with 2 parts vinegar and place in a yellow container to attract moths. Clean regularly.

- Instead of using toxic mothballs in clothing storage areas, use cloves which work as well. Place them in cheese-cloth or spice bags and hang them in closets or stored bags of clothing.

- Use 1/2 pound rosemary, 1/2 pound mint, 1/4 pound thyme, and 2 tablespoons ground cloves. Mix and put in cheesecloth bags and place in closets or drawers.

- Make sachets of dried lavender or equal portions of rosemary and mint. Place in closets, drawers, or closed containers to mothproof garments.

Fleas

- Combine orange peels, grapefruit peels, 3 garlic cloves, 1 tablespoon rosemary, (optional) and one pint of water in blender. Blend until liquefied. Heat mixture on low heat for 15 minutes. Cool and strain liquid into spray bottle. Spray on pet, and massage thoroughly into pet's coat, avoiding their eyes.

- Vacuum furniture and carpet frequently. Change bags after each use or store vacuum cleaner outside of home; clean your pet's favorite sleeping spots regularly and sprinkle with fennel or rosemary.

- A ratio of 1 teaspoon vinegar to one quart water used as drinking water helps to keep most pets free of fleas and ticks.

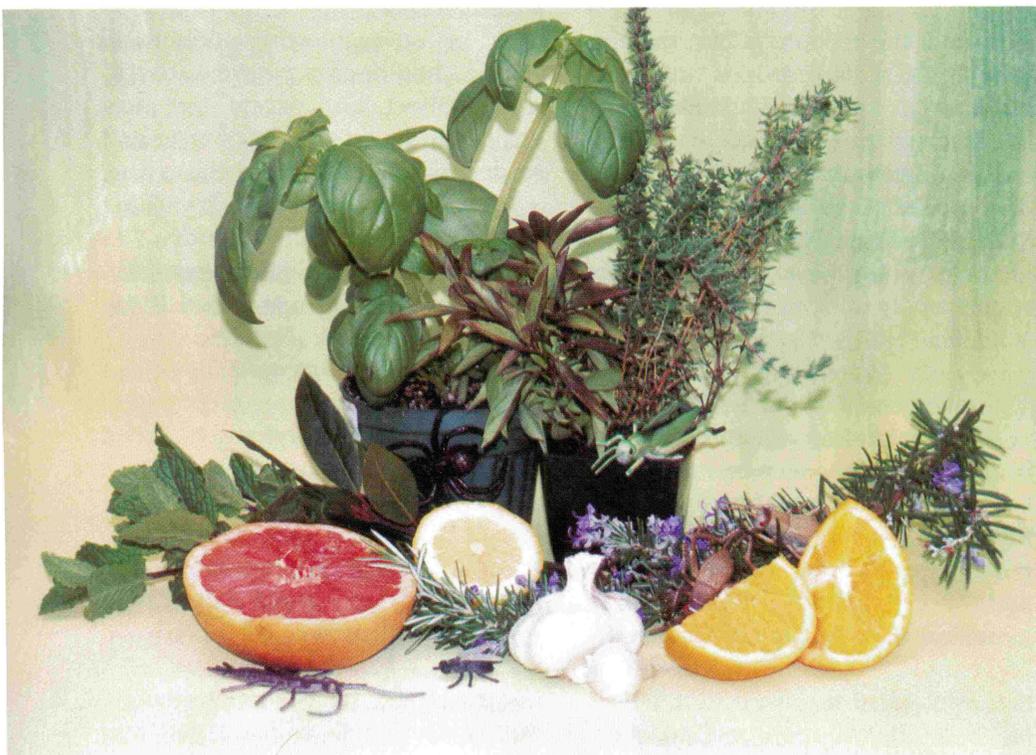
- Spread leaves or shavings of Fennel, Rosemary, Red Cedar Shavings, Sassafras, Eucalyptus, or Pennyroyal under and around your pets' beds.

- Dust powdered Rosemary (cooking herb) onto the pet or areas where the pet sleeps.

- Make a water trap by partially filling a shallow pan with water. Suspend light source securely above it. Fleas (and other bugs) are attracted to the light and fall into the water and drown.

Flies

- To prevent flies, keep kitchen garbage tightly closed. Sprinkle dry



photos by Susie Christian

Front row, left to right: grapefruit, lemon, garlic, oranges. Back row, left to right: mint plant, bay leaves, basil plants, thyme plant, and rosemary (lying horizontally).

soap powder or flakes into garbage cans after they have been washed and allowed to dry.

- In a small glass or jar, pour about one inch of real cider or red wine. Make a cover with saran wrap and a rubber band. Punch about six holes with a bamboo skewer or other sharp object. Flies will crawl in but cannot crawl out.
- Scratch the skin of an orange or grapefruit and leave it out; the citrus acts as a repellent.
- Hang muslin cloth bags of cloves to repel flies.
- Mint planted around the home or grown in pots indoors repels flies.
- Basil plants help to repel flies. Water potted plants from the bottom to produce a stronger scent.
- Dried ground leaves of basil left in small bowls or hung in muslin bags are also effective.
- The bruised foliage of the Kentucky Coffee Tree when sprinkled with sweetened water will attract and kill flies.
- Make your own fly paper by boiling sugar, corn syrup, and water together. Place mixture onto brown paper and place in an empty cage or a covered laundry basket.

Mosquitoes

- For prevention, encourage natural predators such as dragonflies or praying mantises.
- Eliminate pools of stagnant water.
- Avoid wearing perfume, bright colors, flowery prints, and bright jewelry as these items attract mosquitoes.
- Burn citronella candles to repel insects.
- Plant tansy or basil around the patio and house to repel mosquitoes.
- Neem products repel and affect the development of mosquitoes. Two percent Neem oil mixed in coconut oil, when applied to exposed body parts, provides complete protection for 12 hours from bites of all anophelines.

Outdoor Pest Control

Slugs and Snails

- Garter snakes, grass snakes, ground beetles, box turtles, salamanders, ducks, and larvae of lightning

bugs all feed on snails.

- Place overturned clay flower pots near the shady side of a plant. Rest one edge on a small twig or make sure that the ground is irregular enough for the slugs and snails to crawl under the rim. They will collect there during the warmest part of the day. Remove slugs and snails regularly and drop in a bucket of soapy water.
- Snails avoid protective borders of sand, lime, or ashes.
- Protect young plants by encircling them with a food can with both ends removed. Push the bottom of the can into the soil.
- Snails avoid garlic, chives, and wormwood plants and spices.

Mice

- Place instant mashed potato powder or potato eyes (buds) in strategic places with a dish of water close by. After eating the powder or buds, mice will need water. This causes fatal bloating.
- Use "snap traps" inside a box with an entrance hole large enough for only mice to enter which prevent birds and other pets from being injured.

Moles

- Blend one tablespoon castor oil and two tablespoons liquid detergent until the mixture is like shaving cream. Add six tablespoons water and whip again. Keep this mixture out of the reach of children and pets. Fill a sprinkling can with warm water. Add 2 tablespoons of the oil mixture and stir. Sprinkle immediately over the areas of greatest mole infestation. For best results, apply after a rain or thorough watering.

General Pest Remedies

- Diatomaceous earth (DE) can be sprinkled on areas where pests are found. It contains the spent shells of tiny sea creatures that are sharp enough to damage the exoskeleton and cause insects to dehydrate. DE is harmless to humans and animals. Some insect eggs also are susceptible to the dehydrating power of DE which has a drying effect on ants, roaches, fleas, and ticks. DE is widely recognized as safe for use around pets and

humans. Parrots should not breathe the powder as it is being applied in the aviary. One brand available in natural food markets is "Concern" by Necessary Organics.

- The most effective insecticide that instantly kills flying and crawling insects on contact but does no harm to mammals or birds is the dried and crushed flowers of the *Pyrethrum* Plant. This brown powder will kill or stun the insects the moment it touches them but does no harm to pets when sprinkled on their coats. This member of the daisy family is a beautiful ornamental and will complement any garden or flower bed. While very effective, the dried powder only lasts for only a few days. You can prolong its use throughout the year by freezing fresh flower heads in zip-lock bags and drying and crushing them as needed.

- Neem – the seed kernels of the Neem tree *Azadirachta indica* are rich in limonoids, bitter tasting chemicals that effectively block development, feeding, and egg laying in many species of insects. The most powerful limonoid (azadirachtin) has been certified by health authorities in the USA and Europe as being non-toxic to birds, animals, and humans, but highly effective against insects. It has been registered for pest control in the US and in several other countries. Azadirachtin does not have a knock-down effect on insects but acts against an insect's sense of taste and so disrupts its feeding and egg-laying.

- Ivory liquid dishwashing detergent, diluted with water to a 1 to 2% solution, provides insect control on many plants and is easy to mix. Spray plants until they are drenched.

- Repellent sprays made from a "puree of bugs" have been reported as useful by some gardeners for garden plants as well as houseplants.

- Frogs, spiders, ladybugs, praying mantis, and dragon flies will help to reduce pest populations around the home and garden.

- One bat will eat up to 600 mosquitoes, harmful moths, and other insect pest per hour at night. Bats do not attack people or harm pets and can be encouraged to inhabit "bat houses" on your property. 