

# WILDLIFE DAMAGE CONTROL IN VIRGINIA



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## WOODCHUCKS

Abundant throughout Virginia and much of eastern North America wherever it can burrow in or near meadows and fields, the woodchuck is one of our most frequently seen wild mammals. The woodchuck also is called groundhog or whistlepig. Its scientific name is Marmota monax. Monax was derived from the American Indian word for digger. Weighing from 4 to 14 pounds and measuring 16 to 27 inches at adulthood, the woodchuck is the largest member of the squirrel family. The fur is usually dark brown, with a sprinkling of grizzly gray-tipped hairs on the back. Typical of all rodents, the woodchuck has large, chisel-like upper and lower front teeth.

True to their Indian name, woodchucks are diggers. Their short and powerful legs are equipped with strong claws to help move earth. The external ear canal can be closed to

keep dirt out. When burrowing, the woodchuck pushes loosened earth out of the burrow with its blunt head and chest. The amount of earth moved by a single woodchuck in a day can equal more than 700 pounds. Over the eons, the woodchuck has contributed considerably to the development of topsoils. The burrow system has a main entrance and from 1 to 4 escape holes which are usually in thick vegetation and difficult to find. The nest chamber is about 16" wide and 12" high. The tunnel system may be 45' long.

In the spring, an occupied woodchuck burrow has fresh dirt in the form of pellets as small as marbles to clods as large as apples. Skunk and fox dens have refuse lying about

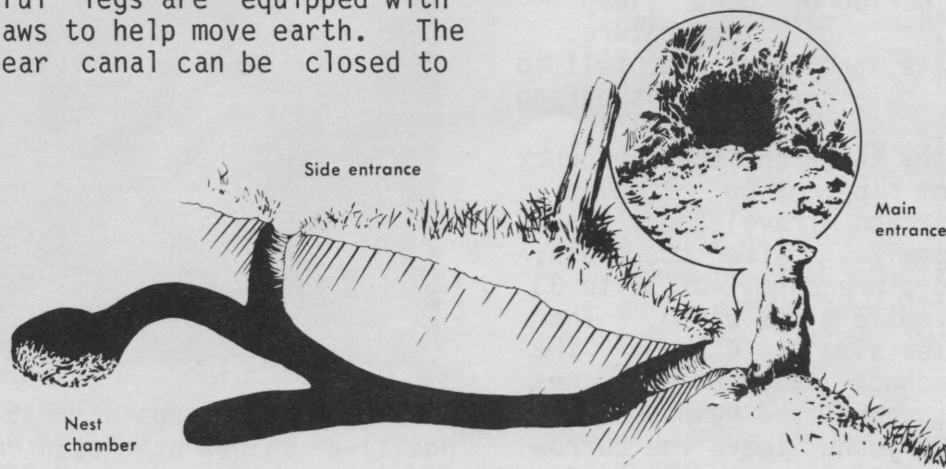


Diagram of woodchuck home

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entrances and odor. Skunk droppings are black and contain undigested parts of insects. Foxes leave bones and feathers of birds and remains of other animals around den openings. Droppings and remains are not visible near woodchuck holes. Also, the openings of fox dens are usually larger, and the mounds are fan-shaped.

Like other squirrels, woodchucks are vegetarians; favorite foods include clover, alfalfa, green soybean plants, and other plants high in protein and water content. Vegetable gardens and fertilized farm fields are favorite feeding places. Woodchucks are most active in early morning and late afternoon and evening hours when the plants are apt to be damp with dew. They do not travel to drink water.

Except for females with young, woodchucks tend to be solitary. During the year, the woodchuck may travel 1/4 mile from its burrow, but, in good habitats, movements exceeding 20 yards from the burrow are unusual. With the coming of fall, the length of activity periods are shorter and shorter. In late October, woodchucks seem drowsy and can be approached much easier than during mid-summer. Finally, they go down in their burrows to stay for the winter. Physiologists term this period of deep sleep hibernation. Body temperature, breathing rate, and heart rate fall to almost half their normal levels during hibernation.

In February to March, the woodchuck emerges from hibernation. Males awaken first and travel about in search of females. After courtship, mating, and a pregnancy of 31 to 33 days, the female gives birth. The average litter size is 4 to 5. The newborn woodchuck is about 4 inches long, blind, naked, and helpless. At 6 weeks, the young leave the burrow for the first time. When 3 to 4 months old, the young woodchucks leave the home burrow and attempt to establish a home for themselves. In their wanderings many fall prey to

wild predators, dogs, and automobiles. Only one-fourth of woodchucks breed at one year of age; the average age at first reproduction is two years. Woodchucks can live 4 years or more in the wild.

#### WOODCHUCKS AND PEOPLE

Woodchucks condition the soil by their burrowing activities. Their old burrows are used by rabbits, skunks, foxes, and weasels. Many a farm boy has learned stalking and marksmanship skills from hunting woodchucks. Since woodchucks eat only the most succulent, nutritious, green plants, it is not surprising that woodchuck meat can taste quite good. Also, woodchucks, especially mothers with young, are interesting to observe.



It is unfortunate that these positive values are countered by problems. Woodchucks can do substantial damage to a vegetable garden. They also can eat as much as 1 1/2 pounds of soybean plants or alfalfa per day. Their burrows make



pastures less safe for livestock and equipment operation. For many gardeners and farmers, woodchucks are pests and ways to control their damage are needed.

#### WOODCHUCK DAMAGE CONTROL

Woodchucks can be prevented from damaging vegetable gardens by fencing. The best fence to prevent woodchucks, rabbits, raccoons, and squirrels from raiding the garden is a sturdy, 2"x4" mesh, welded, galvanized wire fence, topped with an electric wire and buried. The fence should be at least 2' above ground and buried 1' deep. The buried fence should be bent in an "L" shape, with the bottom of the L facing away from the garden. This discourages burrowers which start digging where the fence emerges from the soil. Done properly, fencing with heavy gauge wire should give protection for about 10 years under normal conditions. Installing a good fence is expensive, but the fence also keeps pets and playing kids as well as unwanted wildlife out of the garden.

Fencing may be impractical for farmers and require too much cash outlay for many gardeners. The alternative is to remove the offending animals by fumigation, trapping, or shooting.

#### FUMIGATION

Fumigating or gassing should be done in the spring when the first sign of fresh burrowing activity is observed. Early work avoids killing the young. Effective use of poison gas depends upon locating and plugging all escape holes. Plug these holes with sod cut to size by a shovel and stamped into the holes grass-side down. There are three sources of gas. One is exhaust gas from an engine, which can be piped by a hose into the burrow for 5 to 10 minutes. After gassing, the hole should be plugged with sod to prevent reuse.

A second fumigant is the gas cartridge, which can be purchased at

most garden supply stores. Before using the cartridge, prepare a sod plug to fill the main entrance and plug the escape holes. Punch five holes in the end cap of the cartridge and insert a fuse to half its length in one hole. Light the fuse and place it into the holes -- do not throw it in. If the cartridge does not ignite, light a second one and place it next to the first. When smoky gas develops, plug the main hole and any overlooked escape holes with sod. Take care to avoid a wild fire, and do not inhale the noxious fumes. Do not use gas cartridges in burrows under buildings.

Phosphine (PH<sub>3</sub>) gas produced from water vapor reacting with commercially available pellets will fumigate woodchuck dens. This new chemical has been approved for use by certified pesticide applicators and is available at some farm supply outlets.

Two chemicals, calcium cyanide and carbon bisulphide, have been used to gas woodchucks. Both of these chemicals present hazards to the user, and their use should be avoided, even though calcium cyanide is registered by the Environmental Protection Agency for controlling groundhogs.

#### KEYS TO THE PROPER USE OF PESTICIDES

1. Read the label on each pesticide container before each use. Follow instructions to the letter; heed all cautions and warnings; note precautions about residues.
2. Keep pesticides in the containers in which you bought them. Put them where children and animals cannot get to them, preferably locked-up and away from food, feed, seed, and other materials that may become harmful if contaminated.
3. Dispose of empty pesticide containers in the manner specified on the label.

SEE YOUR DOCTOR IF SYMPTOMS OF ILLNESS OCCUR DURING OR AFTER USE OF PESTICIDES.

## TRAPPING

Woodchucks can be live-trapped in traps baited with fresh vegetables, then removed or prepared for food. Instructions for building a suitable live trap are available from any Virginia Cooperative Extension office. Ask for "Live-Trapping Nuisance Animals."

Woodchucks can be trapped with steel traps set at entrances to burrows. Leg-hold traps of size 1 1/2 or 2 will work if properly set and staked with a strong bar to prevent the woodchuck from dragging the trap into the burrow. Leg-hold traps are not as efficient or humane as the quick-kill or conibear style trap. The medium-size quick-kill trap should be securely staked at the burrow entrance hole. Any trapping effort should be monitored daily to prevent undue suffering to the trapped animal. If the animal must be killed, it should be shot in the head or be hit in the head briskly with a heavy wooden stick or a metal bar. Conibear traps should not be used where children play or where pets are likely to explore.

## SHOOTING

Shooting can reduce woodchuck numbers and can eliminate an offending garden raider. But shooting is generally more time-consuming and less effective than trapping. As noted above, hunting woodchucks is popular with some young hunters and

specialists in varmint hunting. Woodchuck hunting is not without danger. Landowners and hunters should agree on all aspects of woodchuck hunting before any hunting is allowed. Rocky areas where bullets can ricochet should be off limits. Hunters should wear blaze orange hats to prevent being mistaken by other hunters for woodchucks. Between 1961 and 1977, 39 hunting accidents in Virginia occurred during woodchuck hunting, and many of them could have been avoided by following safety rules.

Every effort should be made to use the woodchuck carcass for food. Hunters should shoot only in directions where their bullets cannot possibly reach buildings and livestock.

## PREPARING AND COOKING WOODCHUCK

As with any meat animal, wild or domestic, the quicker the carcass is cleaned and chilled the better will be the quality of the meat. With animals that have been shot, remove entrails, skin and remove all blood-shot meat as soon as possible. Then wash the carcass, removing all hair and traces of body fluids. Next cut up the carcass as you would a rabbit. If the animal was in its first or second years, the meat can be cooked as a stew or fried like chicken without further treatment. Meat from older animals may be improved by soaking overnight in salted water or a marinade. Place the bowl in the refrigerator to prevent spoilage.

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