

Bees and Wasps

Their Control About the Home

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HONEYBEE SWARMS

In spring and early summer honeybees frequently become established in the walls of homes and other buildings. Honeybees usually are recognized as being useful pollinators of legumes, fruits, and vegetables, but they can be a nuisance and a hazard to the home owner.

Swarming is an instinctive habit of honeybees and invariably occurs when the colony is overcrowded so that expansion within the hives is no longer possible. A swarm usually emerges from the hive between 10 a.m. and 2 p.m. On very warm and sultry days, however, swarms may leave as early as 7 a.m. and continue emerging until 5 p.m.

Occasionally, on emergence from the hive a swarm will cluster first on branches of shrubs or trees about a home and remain there for varying lengths of time. While it is hanging from the limb or branch, other bees are frantically searching for new quarters where the swarm can become established. Such a swarm can be exceedingly annoying when located near the entrance of a home or along an entrance path; however, it will move as soon as new quarters have been located.

Following are several methods which can be employed for the eradication of swarms of honeybees where they constitute a hazard to the normal operation of a homeowner or farmer.

Control

A. In homes

Swarms frequently become established between the walls of homes, in attics, and under the eaves. Cyanogas (calcium cyanide) is an extremely effective poison against honeybees, but it is very dangerous to all forms of life that may be exposed to its fumes. Several newer insecticides are equally effective against the honeybee and are much less dangerous to use. Before considering control of honeybees established in the walls of the home, the colony and its entrances should be located. If several entrance-exit holes are being used all but one should be plugged with cotton batting or other material. Do not use cyanogas to kill bees in an occupied dwelling where they can be effectively controlled by the use of 5% chlordane, 2 1/2% aldrin, or 1 1/2% dieldrin dust. It is advisable to apply the insecticide only in the evening when all the bees have returned to their nest.

A vacuum cleaner may be used in reverse to blow the dust into entrance holes where such holes are accessible, or the dust can be dumped in through a funnel.

As new bees emerge from the cells after the treatment has been applied, a second application may be necessary; however, residual materials, such as the dusts mentioned, usually kill these bees.

Once complete control has been realized, the single entrance hole should be completely sealed, so future swarms will not use the old nest. When possible, it is advisable for the operator to wear a bee veil and gloves and carefully tie sleeves and trouser legs so bees cannot get under the clothing. If bees have accumulated large amounts of honey inside the walls, it may be necessary to remove some of the wallboards to destroy this accumulation. Otherwise, quantities of honey in walls exposed to the sun may melt and cause damage to interior finishes. If concentrated poisons, such as those mentioned, have been used to eradicate bees, there is danger some of the poison may be stored with the honey or remain in residual amounts. Such honey is unfit for human consumption and should be buried.

B. In barns or other unoccupied dwellings

Any of the poisons mentioned can be used to destroy bees in outbuildings; however, if the honey is to be saved, cyanogas may be employed. Cyanogas is a very powerful poison that can be purchased at most drug or hardware stores. After sundown a few teaspoons of the powder should be emptied into the entrance. The bees are overcome quickly by the fumes and all will be killed within a few minutes. The honey may be used since cyanogas does not poison it.

Individuals should be extremely cautious when using cyanogas as it is dangerous to inhale and, where possible, the operator should keep to the windward side of the powder.

Honeybees will not normally be killed by autumn or winter frosts, but where the swarm is located in an outbuilding, the siding may be removed and the entire colony exposed during the most severe winter weather. This will result in the death of the bees and the honey may be utilized.

Catching and hiving a swarm

When swarms occur early in the spring, a professional beekeeper in your area may be willing to capture the swarm for you and thus eliminate any control measures on your part. The transferring of bees is done by the use of a bee escape which prevents the bees from returning to their original site between the walls and offers them a nearby colony as an alternative.

Method

All entrance-exit holes except one should be sealed off as previously described. A Porter bee escape, which can be purchased through any bee supply dealer, is then fastened or tacked over the entrance-exit hole.

This escape permits the bees to come out but does not let them re-enter. A cone of wire also may be used effectively. The cone should be at least 6 inches long and have the apical end no wider than one-fourth inch. The broad end of the cone is tacked around the entrance and the bees are forced to leave via the narrow apex. A (weak) hive is then placed on a platform with the entrances at right angles to each other. The hive should consist of a few frames of brood and should have a queen or queen cell in it. The bees located in the wall will be able to leave, but will not be able to return to their swarm hive. After a few futile attempts to return to their old home, they will find the new hive and enter it. It may take 3 to 6 weeks to remove the workers and the brood from their location in the wall, at which time the swarm queen will die. The length of time necessary for the complete elimination of worker bees will depend on the length of time the swarm has occupied the dwelling.

When the colony in the wall has run out, the bee escape can be removed. Bees from adjacent hives will carry out or rob any honey that remains in the walls and store it in their new hives. After all the honey has been removed, the entrance should be sealed carefully to prevent future swarms from establishing in the same location. This new hive should be moved to a new site during the evening when all the bees are inside.

It is not advisable to seal an exit-entrance hole of a swarm if the elimination of a colony in the walls of a building is desired. Bees in desperation may make a new exit-entrance hole and when this occurs in an occupied dwelling the home owner may find himself sharing his home with a swarm of bees.

WASPS

Wasps include many forms which the layman commonly refers to as yellow jackets, hornets, digger wasps, and paper wasps. All forms on occasion have caused home owners considerable concern. While some of the social wasps act much as honeybees in their social behavior, they do not feed on pollen and nectar but restrict themselves to foraging for animal types of food or insects. On the basis of their habits, wasps can be divided into two categories--the social and the solitary wasps. All of the social wasps are members of the family Vespidae, and this group includes the hornets, yellow jackets, and the paper wasps. A few Vespidae wasps are solitary in habit. The solitary wasps of the family Sphecidae are most commonly encountered in Oregon and cause considerable concern to home owners.

Social Wasps

Many of the social wasps build nests of paper or fibers of wood which have been chewed well and mixed with saliva. This wood-saliva mixture is cemented together to make the well-known paper nest of the wasp. These nests serve as a home only through one season. All of the workers and the males die each fall. Young, fertile queens hibernate during winter in walls, crevices of houses, or other protected sites. The females emerge in the spring and immediately begin seeking nest building sites.

It is at this time that many home owners are bothered by wasps. Upon finding a site the queen builds her new nest and rears her first brood to adult workers without any help. As soon as the young workers hatch, the responsibilities of nest building and searching for food are taken over by them while the queen gives her exclusive attention to egg laying. As the worker population builds up, the nest and the colony become larger. Not until late summer or early fall are males and young queens produced. Upon mating, the young queens begin searching for suitable hibernating places.

Control

The eradication of wasps and wasp nests is not difficult, but it is advisable to put off control operations until evening or after dark. At this time all the wasps are at home, and there is less chance of being stung. Even then it is advisable to wear a bee veil and gloves. It is easy to kill yellow jackets that nest in the ground. Pour 2 or 3 tablespoons of 2 1/2% aldrin, 5% chlordane or 1 1/2% dieldrin dust into the opening.

If the nest is in an exposed location, such as in a garage, under the eaves of a roof, or in an attic, the colonies can be destroyed by putting 2 or 3 tablespoonsful of carbon tetrachloride in a fruit jar during the evening and then slipping the jar up to the nest so the open end of the jar is over the opening of the nest. The jar should be held tight enough so the wasps cannot escape but will fall directly into the jar. Those that do fly out will be overcome immediately by gas fumes and the remainder will be killed by the penetration of fumes into the nest. It may require 5 or 10 minutes of exposure before all the wasps have been killed. After this time the nests can be removed with safety and destroyed.

Paper nests also may be treated with oil base sprays of 2% aldrin, 1 1/2% dieldrin, or 2% chlordane. The solution should be applied first to the nest entrance during late evening hours. Then the nest should be saturated with the solution.

Occasionally, wasp nests are encountered between the walls of buildings and control is more difficult. Because of the vast amount of vacant space inside of a wall, the fumigants, such as carbon tetrachloride and cyanogas, are more difficult to apply. Carbon tetrachloride, although less poisonous than cynogas, is dangerous to humans and care should be taken to avoid breathing the fumes. As has been noted, cyanogas is very deadly and should be used around the house only under the supervision of a qualified control operator. When nests are located in the walls of houses, it would be advisable to use a 5% chlordane dust, a 1 1/2% dieldrin dust, or a 2 1/2% aldrin dust. These dusts should be applied in quantity directly to the entrance of the nest. It may require two or three applications to rid the wall of the colony.

Yellow jackets can become troublesome about canneries or homes in which canning is taking place. The most practical and satisfactory method of avoiding wasps is to keep everything behind screened windows and doors. In areas where this method is not practical and the destruction of all the nests of yellow jackets in the immediate vicinity is necessary, the wasps may be killed by traps or poison food. Care should be taken not to use sweets which also might kill honeybees in the locality. Meat is often used as poisoned bait for yellow jackets and other wasps; in fact, the U. S. Forest Service has reported success by using a small amount of arsenic-baited salmon near salmon canning factories. This bait would attract dogs and cats so should be placed where they cannot get it. The poisoned meat is returned to the nest and both the young and the workers are killed upon its consumption. Mix thoroughly 1 teaspoon of calcium or lead arsenate with 1/2 pound of salmon or canned tuna.

Solitary Wasps (mud daubers and digger wasps)

The types of nest constructed by solitary wasps are highly variable. Some build nests of mud while others burrow in the ground or in plant material. Fertilized females construct the nests and supply food for the young larvae. The cells are constructed either separately or in a nest. In each cell a paralyzed, stung spider, caterpillar, beetle, etc. is placed. Since the prey is not dead it does not decay before it is eaten. An egg is laid on this food and the cell is sealed. The larva hatches, feeds, then pupates to emerge as an adult. These wasps nest in a variety of habitats and often are found in attics, porches, under the eaves, or in any outbuilding. Mud for the nest usually is carried by the female from moist places or sloughs. Some wasps feed exclusively on spiders and pack numbers of spiders into each cell.

Control and eradication

Open nests, which are common to most of the solitary wasps, can be sprayed heavily with an oil base insecticide, such as 1 1/2% dieldrin, or 2% chlordane. DDT can be used in a 5% concentration, but is not as effective or rapid a killer as either of the above. The nests should be thoroughly saturated again with the insecticide during the late evening hours.

One point that should be emphasized is that wasps generally are beneficial insects, feeding on caterpillars and many other types of insects. If the wasps are not causing any annoyance by stinging or are not retarding normal operations about the home or farm, control is not justified.