

Yellow_Jackets_1994.txt

Subject: Yellow Jackets

Hi Larry,

Quite some time ago I posted the following docs into Home/Garden Fido echo. Adam Finklestein has been requesting that I send you copies. Ergo, these are for you. Feel free to edit this note to you out.

Jim Dixon
Sysop ERECS

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Oregon State University Extension Entomology
Home & Garden EMAIL Newsletter

Contact: Jack

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Volume 1, Number 2, Last Updated : July 21, 1994

TOPIC: Yellowjacket control around homes (*) See Part 2

It's getting to be the time of year when YELLOWJACKETS become a problem again. Especially these days when its hot and dry.

First of all what's the difference between a yellowjacket

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and a honey bee? If you wish to drive an entomologist absolutely CRAZY call a honey bee a yellowjacket, or vice versa! Here are some simple differences--bees gather pollen and flower nectar while yellowjackets are mostly meat eaters but will take plant and fruit juices also. Yellowjackets are particularly fond of rotting fruit. Yellowjackets are MORE likely than bees to sting without provocation, their sting is more painful (at least to me), normally no stinger remains in the skin, and a single yellowjacket may sting more than once. Honey bees, on the other hand, are much less likely to sting, the sting is not so painful, the stinger usually stays behind, and a single bee can sting only once.

By the way, if you are stung by a bee remove the stinger immediately - don't squeeze it, just scrape it away with your finger nail. Both honey bees and yellowjackets inject venom along with the stinger. The venoms are different so you may react differently to them. It is possible to be severely allergic to one and not even sensitive to the other.

Yellowjackets are heavy-bodied wasps, black with yellow or white markings. They live in grey, papery, nests located either below ground, or suspended above ground. Hunting "workers" search for other insects, carrion or rotting fruit. Workers are attracted to any meat-based or sugary item. Food is carried back to the nest where it is fed to nestmates. Stings usually occur through accidental contact with the nest or nest entrance. Workers vigorously defend the nest and queen against intruders.

The yellowjacket nest is controlled by a queen whose sole responsibility it is to lay eggs. The queen begins a nest in the spring by laying a few eggs and raising these workers to adults. At this point the queen may no longer leave the nest to hunt. Workers provision, expand and defend the nest. As spring and

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summer pass, the nest grows as new workers are reared and assume their role. By the end of summer, nests may contain hundreds or even thousands of workers. It is at this time of the year (August - September) that they are most troublesome and dangerous.

By fall the nest has also produced a crop of new queens and male yellowjackets. By the time of first frost, most workers and male wasps have died and only new, fertilized queens remain. New queens leave the nest to find a protected spot to spend the winter. They reemerge in spring to begin the cycle all over again.

Two points to remember - *only new queens survive the winter, and these queens almost never reuse the old (previous year's) nest the following spring.*

CONTROL OF NUISANCE NESTS. It might occasionally be necessary to destroy a yellowjacket nest because it's near human activity. Here are some suggestions for safe and effective nest removal--Treat nests at night with an approved aerosol insecticide. Treating at night helps because workers are inside and relatively calm. Use one of the aerosols that propel a stream of insecticide "up to 20 feet" so that you can stand off a safe distance and treat directly into the nest opening. DON'T pour gasoline into ground nests. This is dangerous, environmentally harmful, and illegal. And, use products specifically made for yellowjacket control. Some pest control companies will locate and treat nests for you. Expect to spend about \$75 each.

**** Editor's Note Depending on your target audience and article length, you may wish to delete the following section. It is intended mostly for commercial pesticide applicators.

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POISONED BAITS. The following procedure can be extremely

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hazardous but is effective for severe yellowjacket infestations. Locating below-ground nests is difficult so pest control professionals may resort to use of poisoned baits to achieve area-wide control. The idea is to get the worker yellowjackets to carry a bit of poisoned food back to the nest thereby affecting control. The method uses an encapsulated insecticide to prepare a poison bait. The instructions accompanying the insecticide describe how to use it, and must be followed exactly. Bait stations must be protected so that other animals cannot get to the poisoned bait. Poisoned baits should only be used after about July 15 when nests have begun to expand rapidly. Prior to this date you risk disrupting beneficial species.

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TRAPPING. Non-toxic yellowjacket traps are available in yard and garden stores. The most effective traps use a synthetic attractant called n-heptyl butyrate to lure worker yellowjackets into a trap from which they cannot escape. Fruit juice or various meats can be used as attractants as well. Traps can provide some temporary relief for picnics, etc. by drawing workers away from people, but are not effective for area-wide nest control.

A NOTE ON SAFETY. Some people are allergic to the venom of yellowjackets and others are allergic to bee stings. Both reactions can be life-threatening. If you are particularly sensitive to yellowjacket venom be cautious in late summer and early fall when the insects are most numerous. Also, enlist the help of someone not as sensitive if you need to spray a nest! Bee stings can occur anytime bees are out of their hives, but are far less common. Never attempt to remove or destroy honey bee hives. Call a local beekeeper or your county Extension office.

Other wasps you may have noticed are the MUD DAUBERS and PAPER WASPS. You'll see mud daubers around wet soil collecting

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bits to take back to their nests, usually a mud tube. Paper wasps build small, open nests suspended vertically. Paper wasps are distinguished by their long legs and thin "waists". Both mud daubers and paper wasps are less aggressive and normally will not sting or swarm when away from their nest.

AFRICANIZED HONEY BEES. This might be a good spot to mention africanized honey bees. A little history - many years ago a strain of honey bees from Africa was imported into Brazil in an attempt to improve honey production of the European honey bee (the honey bee used throughout North and South America).

Unfortunately, while the African strain is an excellent honey producer, it is also extremely aggressive and protective of its nest (unlike the European bee). Intruders may be swarmed and sometimes stung to death by the African strain. About 30 years ago this African strain escaped from its original source in Brazil and has been extending its range ever since.

Swarms have been detected in California, Arizona and Texas. They do not yet occur in Oregon. Even if they range into Oregon only commercial bee keepers will be significantly impacted. As their European hives are "africanized" they will have to take more care in handling the bees to avoid the swarming behavior.

BE SURE TO READ AND FOLLOW THE PESTICIDE PRODUCT LABEL. THE LABEL IS THE FINAL WORD ON WHAT DOES OR DOES NOT CONSTITUTE A LEGAL AND SAFE APPLICATION.

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Controlling Wasps: Part 2 of 2

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Obviously, the best way to control wasps is to use non-chemical means. Ground wasps are easily disposed of. In the late evening, place a screen over the hole. Secure screen to the ground using a few rocks keeping the hole clear. Using your garden hose, place the nozzle

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directly over the hole. Turn the water on to a slow trickle. Allow the water to run for at least 1 hour to ensure that the hole and nest is completely saturated and has drowned the nest. Remove the screen once you are certain the wasps are destroyed.

Another method is to mix Borax soap crystals with table sugar 40/60. Make a paste using water and place the paste about 1 inch from the hole. The wasp will take the sugared poison into the nest and feed the queen. The Borax will do the rest.

A reminder that these wasps are usually feeding on ripened fruit and are surely intoxicated by the days end. Wasps are less aggressive in the cool evening. These wasp population grow in intensity but usually die off by the end of September or middle of October depending on your local climate.

Around the home, wasps will be attracted to meat and sweet products. When drinking pop or other sweetened products, it is best not to drink from cans or bottles. Wasps will enter these containers. many people report wasp stings when drinking from cans or bottles. For safety sake, it is best to pour the drink into a cup. Jim Dixon

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Most people know and fear the yellow-and-black striped yellowjacket wasps that are common, uninvited guests to late summer picnics. Their stings are painful and for those people allergic to insect venom, they are dangerous. Many people confuse bees, which are fuzzy and only feed on flower nectar, with wasps, which have shiny bodies and are predators. What most people don't realize is that yellowjackets capture enormous numbers of flies, caterpillars and other insects to feed their young. They have been seen bringing in more than 225 flies an hour to a single nest; one study found that over a three day period, just two wasps collected 20 grams of imported cabbageworms. It is usually only in late summer, when their populations are at their peak and wasps are attracted to plants with ripening fruit or aphid honeydew deposits on the leaves that most conflicts arise between humans and yellowjackets. Although they are touchy defenders of their nests, most stings are a result of accidentally trapping or pinching a wasp.

> You can avoid being stung by following a few rules:

1. Remove all outdoor food sources attractive to wasps. Feed pets indoors and keep garbage cans tightly covered and wash cans regularly to remove spilled food. Bury fallen fruit and table scraps deep in compost piles and don't compost meat scraps or bones.
2. Watch where you sit or step (don't go barefoot!). Be especially careful

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to look before reaching into berry bushes or picking fruit. Thirsty wasps are attracted to moisture so be cautious when sitting on or handling wet beach towels.

3. Never swat at a yellowjacket hovering around you--it is a good way to get stung. Instead, quietly move away or let the wasp leave of her own accord. The only exception to this is if you have accidentally disturbed a nest and hear wild buzzing. In this case protect your face with your hands and RUN!

4. Pick fruit in the early morning or evening while it is cool and most wasps are still in their nests.

>To reduce yellowjacket problems at picnics and barbeques:

1. Minimize the length of time food is available by keeping it tightly covered until just before it is to be eaten. Clear away scraps and dirty plates as soon as the meal is over.

2. Serve sweet or alcoholic drinks in covered cups with drinking straws through the lids so wasps can't get inside and then sting you in the mouth as you drink. When drinking out of a can, keep the opening covered with your thumb between sips.

3. Set up baited yellowjacket traps around the edge of the picnic area or on the end of the table to attract wasps away from the food to capture them.

Small disposable cardboard traps or reusable ones made of wood and metal screen are sold at garden centers. They work by attracting wasps to bait placed under an inverted funnel. When the wasps have had their fill and instinctively fly upwards toward the light at the end of the funnel, they are trapped in an enclosed chamber above. In early and mid-summer, 1-2 traps should be enough for most picnics. In August and early September, however, six or more traps might be necessary. For much of the season,

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the best baits are Spam, ham, fish, cat food or meat scraps. Later in the summer, when wasps need less protein because they aren't rearing their young, sweet baits such as jam, honey or rotting fruit are often more attractive. When the picnic is over, sink the traps in a bucket of soapy water to kill the wasps. Make very sure they are dead before cleaning out reusable traps.

> Removing wasp nests:

Although the number of yellowjackets in late summer invariably prompts many concerned inquiries on how to control them, usually there is little that can be done. The wasps will all die in a matter of weeks as fall approaches. Even if a nearby nest is discovered late in the summer, eliminating it may not have the desired effect because wasps can fly in from up to a mile away. It is never advisable to put out poison baits because children and pets may get into them and because other, beneficial, insects may take the bait and be killed. It is also a terrible idea to pour gas or kerosene into an underground wasp nest where it poisons the soil.

If yellowjackets do build a nest in a location likely to cause problems with people or livestock, the best time to remove it is early in the season, while it is still small. This is a job for a very careful person or a professional pest control service. Chemical wasp sprays are available, but if you use them, consider very carefully where the stream of pesticide that misses the nest will land. Always use such products according to direction on the label. Remove an exposed nest that has been sprayed as soon as the wasps are dead. Wear rubber gloves and dispose of the nest to prevent birds from eating the poisoned larvae left inside.

To remove a hanging wasp nest without using chemicals:

First, it is a good idea to get a helper. To be safe, both of you should wear protective clothing from head to foot. Although a beekeeper's suit with hat and veil is ideal, you can assemble a similar suit for the occasion from heavy coveralls, a hat with a wide brim and a length of fine screening. Wear boots with your pants cuffs pulled outside the boot tops

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and seal the cuffs around the boot top with rubber bands so that wasps can't get up your legs. Wear gloves and pull your sleeve cuffs over the tops of the gloves and seal them the same way. Drape the screening over the hat (the brim should keep it away from your face) and tie it around the neck, over the collar of the coveralls. Make sure there are no openings around the collar or base of the veil. You should wear another layer of clothing underneath the overalls because wasp stingers are long enough to reach through one layer of cloth.

To remove the nest, approach in the evening or at night when the wasps are all home and less active because it is cool. Have your helper hold open a large, heavy bag or a box with a tight lid under the nest while you cut the attaching stem of the nest as quickly as possible using a long handled pruning hook, or other tool. When the nest is in the bag or box, close it immediately and seal shut. Kill the wasps inside by putting the whole package in a deep freeze for 24 hr. or by directing a wasp spray into the package through a small hole for several minutes. Don't neglect this last step because wasps can eventually chew their way out of almost anything.

> Wasp nests in walls:

Wearing suitable protection as above, spray pyrethrins (fast-acting, short-lived compounds extracted from pyrethrum daisies) into the opening of the nest at night. Repeat applications nightly until no more wasps are seen leaving the hole. Never block up the opening as wasps can chew through wood or follow wiring to the interior of the house. In the fall, when the nest is definitely vacant, caulk or repair the crack to prevent recolonization next year.

> Underground Wasp nests:

This is a job better left to a pest control operator, who can dig and vacuum out the nest, however, you can apply pyrethrins sprays as above or pour several gallons of boiling water into the nest. Wear protective clothing as described and be extremely careful not scald yourself with the boiling water.

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#### > Lifecycle:

In spring, the mated queen wasp crawls out of her overwintering shelter, fills herself on flower nectar and insects and then builds a nest in a hole in the ground, inside a wall cavity, or hanging from a branch or the eaves of a building. She chews up plant fibers and weathered wood to make a grey papery pulp for the first egg cells. The queen rears this first brood herself, foraging for food and feeding the larvae. In about a month these larvae become adult worker-daughters and take over cleaning, building and feeding chores for the next generation. The wasp population grows and the nest expands all season as the workers add new layers of cells. In late summer the queen stops laying eggs and the last of the brood matures. Among the last generation in late summer are both queens and males that develop in special cells. When they emerge, they mate and the queen crawls away into a hiding place under bark, in an old stump or under litter to spend the winter. The workers and males all die before winter, the nest falls apart and is not reused next year.

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