

AGRICULTURAL EXPERIMENT STATION
Oregon State College
Wm. A. Schoenfeld, Director
Corvallis

Circular of Information No. 205

August 1939

YELLOW JACKETS
by
H. A. Scullen

Yellow jackets, which are troublesome in late summer and fall may be controlled by various means. The method of control will depend upon the location of their nest. In order to control them it would be well to know something about their life history and habits.

Life History. The winter is passed as young fertile queens which hibernate in protected places. During warm spring days these young queens come out of hibernation and are frequently seen flying about on blossoms. The young queens are much larger in size than the workers which are the types of individuals found in the summer and fall. It is these workers which cause the trouble.

In late spring the young queens start small nests about two inches in diameter in protected places. These nests are built from wood fiber mixed with saliva from the mouth of the young queens. The first eggs hatch into worker larvae. These in turn develop into young worker yellow jackets. The work of feeding the young and building the nest is first performed by the queen. However, as soon as young workers are available, these responsibilities are taken over by them and the queen gives her attention to egg laying only. The workers gradually enlarge the nest as the colony becomes larger during the summer by addition of emerging workers.

In late summer or early fall young queens and male wasps are produced. After mating, the young queens find a satisfactory hibernating place, the males die and in time all the workers die. The nest is used but the one season, and by winter all that remains of the colony are the young queens which will start colonies of their own the following spring.

Some species of yellow jackets prefer to nest on an object above ground, such as the projecting roof of a building or on the limb of a tree, while others seem to prefer a cavity in the ground.

(IMPORTANT: Carbon bisulfide, which is recommended below, is very explosive in the presence of a flame. Keep away from all fire.)

When the yellow jackets nest within the ground. In the evening when all of the yellow jackets have returned to the nest, pour two or three tablespoons of carbon bisulfide into the opening. Then place a piece of board or a shovelful of dirt over the nest to confine the gas. On some occasions, it may be desirable to treat the nest while the yellow jackets are flying. This may be done in the same way also, but the important thing is not to cover up the opening. The yellow jackets which are in the field will come back to the nest and in most cases will fly into the nest and be killed along with the others.

When the nest is in an exposed location. Very often the yellow jackets build their paper nests under an extended portion of the roof or in an open shed. These colonies can readily be destroyed by using a wide mouth fruit jar. Into the fruit jar place about two to three tablespoonfuls of carbon bisulfide. When all of the yellow jackets are in, slip up to the nest and hold this open jar over the opening, close enough to the nest that the yellow jackets cannot escape but will fly from the opening directly into the jar. Those which fly out will immediately be killed by the gas. Those which remain in the nest will eventually be killed by the gas fumes penetrating the opening in the nest. In the course of five or ten minutes, when the buzzing has stopped, the nest may be removed with safety and destroyed. It should be remembered, however, that this gas is highly explosive so the nest should not be put into a fire. A better way would be to submerge it in water.

When the nests are between the walls of a building. This presents a more difficult problem as it is sometimes hard to know just how much space there is around the nest or just where the nest is located between the walls. Due to the fact that the nest probably is surrounded by considerable vacant space, it will be necessary in this case to use a larger amount of the carbon bisulfide than when the nest is in the ground. It would probably be advisable to use a half pound of the carbon bisulfide. A funnel and a small rubber hose will often aid in pouring the liquid into the openings. If there is more than the one opening, the rest should be closed before the liquid is injected.

When the yellow jackets are troublesome about the cannery. If it is practical, the most satisfactory way is to keep everything behind screen doors. It might also be practical, under certain conditions, to kill all the nests of yellow jackets in the immediate neighborhood. Yellow jackets may be killed by traps or poisoned food, but care should be exercised not to use a sweet which will attract honeybees. If meat is used, it should be placed where dogs and cats will not get at it. Yellow jackets are often attracted to meats and similar foods which will not attract honey bees. The use of an ordinary fly trap baited with either meat or fish has proven very satisfactory in some localities.

For more information relative to the use of carbon bisulfide as an insecticide, the reader is referred to Farmers' Bulletin No. 799, published by the United States Department of Agriculture.
