kunafin

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Trichogramma

(Supplemental Information)

There is one parasite wasp, Trichogramma, which needs introduction to many farmers. The adults are among the smallest of insects, having a wingspread of about 1/50th of an inch. Despite its size, it is an efficient destroyer of the eggs of many moths and butterflies, which are the leaf-eaters in the larval stage. These wasps disperse readily in their search for eggs to parasitize, and as many as three adults can develop within a single egg of a corn earworm.

The Trichogramma seeks out eggs, but does not feed on or harm vegetation. It is a particularly effective control agent because it kills its host before the plant can be damaged. Under natural conditions, the Trichogramma often destroys up to 98% of the eggs of a host.

It has taken nearly a century of concerted effort to develop an effective yet economical program based on the artificial liberation of these tiny but beneficial parasites. The methods developed of the mass production of egg parasites represents an outstanding contribution to techniques in biological control. The early work was done by Dr. Stanley Flanders at the University of California. Today this parasitic material has been developed to the point of practical application for farmers. Trichogramma are reared at a private insectary and are shipped in host eggs which may be obtained through the mail. The cost is so low that it is feasible for gardeners and farmers to purchase them for massive releases.

When you are buying Trichogramma, you will receive the larvae almost ready to hatch out as adult wasps. All you have to do is place open containers in the areas to be controlled. Trichogramma emerge from the cards and seek out a variety of eggs which they parasitize and thus destroy.....Trichogramma has achieved eminent success with cotton crops. Checks on fields where heavy releases of Trichogramma were made showed from 60 to 95% better control than in adjoining fields without releases. Many millions of Trichogramma have been shipped from Peru to control cotton pests. The success was so outstanding that the Peruvian government took steps to outlaw the use of chemical insecticides on cotton. One growers' association, having spent nearly two million dollars on insecticides during the 1955-56 season, used parasites exclusively during the following season at a small fraction of the sum previously spent for chemical control.

The following are some of the well known pests of economic importance parasitized by Trichogramma:

armyworm
fall armyworm
bagworm
cotton bollworm
european corn borer
peach borer
squash borer
tobacco false budworm
imported cabbageworm

cankerworm
fall cankerworm
alfalfa caterpillar
eastern tent caterpillar
cutworm
corn earworm
tomato fruitworm
grassworm
tobacco hornworm

tomato hornworm
inchworm
lasiocampidae
beanleaf roller
cotton leafworm
cabbage looper
Angoumis grain moth
overflow worm
brown-tail worm

carpenter moth
codling moth
daggermoth
gypsy moth
hummingbird motl
IO moth
luna moth
Oriental fruit moth
polyphemus

promethea moth
regal moth
rosy maple moth
tussock moth
wax moth
nymphalidae
prominents
datanas
giant silkworm

pterophoridae
skipper
spanworm
swallowtail
fall webworm
alfalfa worm
California oak worm
measuring worm

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