



Arnold Palmer & Bob Hope in the background at the banquet in Las Vegas.



Pastor Porgeson and Jim Otto speakers at the annual Prayer Breakfast.



Dan & Jill Murray, Sandy & Dave Fisher, with their "old" boss Peter Leuzinger in the Midwest Room.

EGG-LAYING STIMULANT DEVELOPED FOR BENEFICIAL WASP

Scientists have developed a chemical mixture that stimulates **Trichogramma**, a beneficial parasitic wasp species; to lay eggs by the thousands — enough for biologically controlling many insect pests. **Trichogramma** is a genus of miniscule wasps (45 adults can be lined up head to tail in one inch) that have excellent potential as biological control agents because they parasitize eggs, thus preventing insect pests from hatching and damaging plants.

U.S.D.A. Agricultural Research Service entomologist William C. Nettles formulated the new egg-laying stimulant, which is a simple salt solution of potassium chloride and magnesium sulfate. Both of these salts are present in relatively large amounts in insect blood.

Trichogramma is present in nature but doesn't reproduce well enough to be effective for biological control, according to Nettles. His new chemical stimulant will serve as the basis for an inexpensive way to produce thousands of **Trichogramma** eggs and will allow scientists to mass rear the wasp for release. **Trichogramma** parasitizes at least 75 families of insects, including beetles, flies and moths, and will help protect vegetables, fruits, forest trees and such crops as cotton, corn and soybeans.

An artificial diet for the wasps still needs to be developed if they are to be produced successfully in large quantities. The Chinese use a natural diet composed of insect blood, egg yolks, milk and salts; however, the use of insect blood is expensive, so scientists are still looking for an inexpensive artificial alternative.



Credit: American Horticulturist 1/84

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