

# Simple Trap for Elm Leaf Beetles

By DR. RONALD M. HAWTHORNE

Economic Entomologist  
California State Department of Agriculture  
Sacramento, California

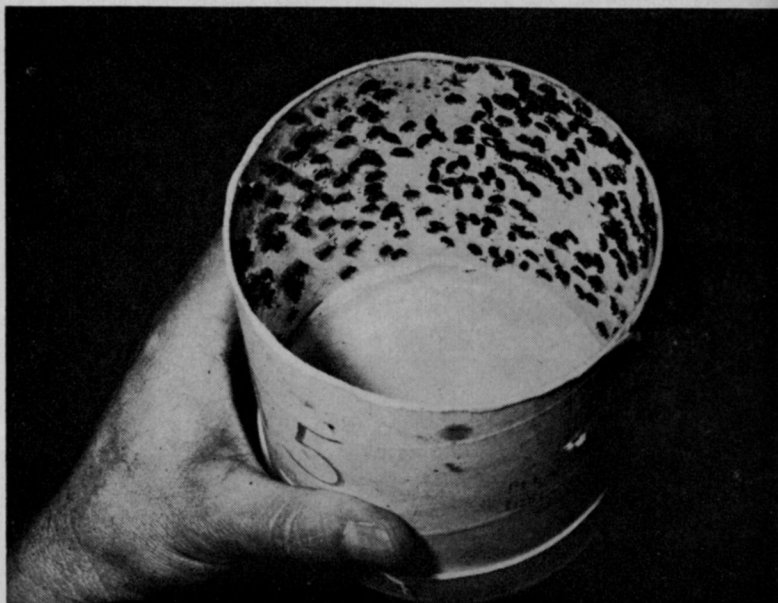


Fig. 1. Elm leaf beetles literally coated this Frick trap which was hung in an apple tree near an elm tree. Almost all of the insects in this trap were elm leaf beetles, more than 250 by actual count. The trap was baited with ammonium carbonate.

WHEN THE WALNUT husk fly suddenly moved from southern to northern California, Frick traps (Fig. 2) picked up adult flies and allowed entomologists to record the distribution of this pest. Because great numbers of walnut husk flies were attracted to the Frick traps, baited with ammonium carbonate, it was decided to use the trap to detect early populations so control measures could be taken. Walnut growers concluded that if inexpensive and simple traps would do the job properly, the traps would eliminate the necessity of using pans and liquid lye bait. The traps worked, and now walnut growers use the Frick trap instead of lye pans to detect incoming husk flies.

When the "all-purpose" Frick traps were removed from California cotton fields, where they were being tested for pink boll-

worm detection, they were placed in fields nearby and checked by County Agriculture Departments. Many interesting insects were found in them.

## Elm Leaf Beetles Plaster Trap

One rather outstanding collection contained over 250 elm leaf beetles, but practically no other insects (Fig. 1). There was nothing different about this particular trap. It had been baited with ammonium carbonate and hung in an apple tree with elm trees nearby. Had only a few elm leaf beetles been trapped, we might think the beetles were caught by chance. But, when the trap was found plastered with 250 adult beetles, it was apparent that ammonium carbonate is strongly attractive to some species of beetles as well as to flies.

The trap was invented quite a

few years ago by a young entomologist, Dr. Kenneth Frick of the Washington State Department of Agriculture. He was working with cherry fruit flies and needed a trap to sample and detect the populations. After many trials with carton-type traps, he came up with a dry-baited, sticky-sided trap that worked, the Frick trap.

Dr. Frick lined the insides of one-quart freezer cartons with his own special "stickum" and added powdered ammonium carbonate. After the eradication of cherry fruit flies in California, Frick's traps were used as "all-purpose" traps for detection of other flies. Since powdered ammonium carbonate is an attractant for many fruit fly species, its use in the Frick trap was continued.

What adaptations the versatile Frick trap may undergo in the future cannot be predicted. It is only an inexpensive pasteboard freezer carton, with the inside smeared with "stickum," baited with an attractive lure such as ammonium carbonate, and suspended by a string preferably in a host plant. The powdered bait is placed in the carton lid, then the perforated trap bottom is pushed into the lid to hold the lure. The Frick trap seems to have definite possibilities as an effective tool for pest detection.

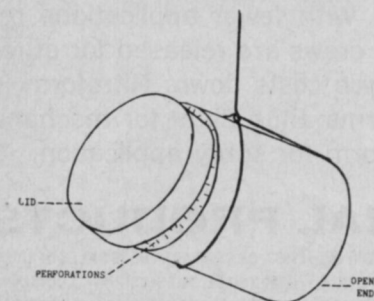


Fig. 2. Frick traps are made of pasteboard freezer cartons lined with a pasty "stickum" to catch insects. They are hung in host trees in filtered shade, preferably with foliage in front or slightly below, but never touching, the open end. Traps hang horizontally with the open end tipped downward to prevent moisture accumulation. An attractant, powdered ammonium sulfate, is placed in the lid, and then the perforated bottom of the carton is pushed into the lid to secure the bait.