

ENTOMOLOGY

U. S. Expels Alien Insects

While nations may come to peaceful agreements, only an aggressive approach by the Government protects the U. S. from an invasion of insect pests—By Elizabeth Hall

➤ ALTHOUGH THE TEST ban treaty may promote international harmony, thousands of alien agents, members of the worldwide pest syndicate called *Insecta*, are being intercepted and expelled by Government officials at about the rate of one every 20 minutes.

The scene of interception could be New York International Airport, a border station at Eagle Pass or Laredo, Texas, the ports at Wilmington, Del., and Savannah, Ga., or just about any U. S. harbor, airport or quarantine station.

Some of the alien agents, intercepted by U. S. Department of Agriculture plant quarantine inspectors, might be such unwanted immigrants as the Chinese rose beetle, Mediterranean fruit fly, khapra beetle, white garden snail, yellow peach moth or sugar-beet crown borer.

These tiny immigrants stow away in cargo shipments, mail packages, travelers' luggage, foreign plants, souvenirs and even commuters' lunch boxes. If undetected in entering the country, such as the \$10 million orange believed to have harbored the Mediterranean fruit fly, expensive eradication programs are necessary.

Anti-pest warfare today includes chemical serums, antibiotics, vaccines and insecticides, as well as new plant varieties resistant to insects. But the first line of defense is to prevent the insects from entering, with cooperation of Government officials and all travelers from foreign countries.

Some of the more expensive plant pests that have entered the country are the stem rust fungus on barberry bushes from Europe before 1726; the gypsy moth from France around 1869, and the pink bollworm from Mexico in 1917.

The European corn borer was imported concealed in broom corn in Massachusetts in 1910. Its U. S. board bill to date has topped the \$350 million mark, and the borer is still a problem in 39 states.

Japanese beetle grubs entered New Jersey about 1916 in the root soil of iris plants. The beetle, which devours 275 different kinds of plants, costs the country about \$10 million annually, but fortunately has been limited to areas east of the Mississippi River.

Although the white garden snail in California and the Mediterranean fruit fly in Florida have both been expensive to eradicate, the khapra beetle, unknown in the Western Hemisphere until the 1950's, is one of the most dangerous of the foreign invaders.

A serious pest in Africa, India and Pakistan abroad, the beetle has damaged countless bushels of stored grain in California, New Mexico and Mexico. Quarantine officials hope that the expensive eradi-

cation programs now under way will bring positive results in a few years, but the beetle keeps appearing in shipments of grain at Atlantic, Pacific, Gulf and Great Lakes ports.

In one week alone this year, the khapra beetle was intercepted 49 times.

During the 1950's, four other major destructive plant pests entered the U. S., using an unknown method. They are the spotted alfalfa aphid (\$42 million damage in the Southwest in 1956); the African witchweed (that attacks corn roots underground); soybean cyst nematode from Asia, and hoja blanca, a serious virus disease of rice plants, imported from Latin America.

One of the newest European invaders is the cereal leaf beetle that entered Michigan about five or six years ago and is proving a serious economic pest to the grain crops of Michigan, Ohio and Indiana.

Today rigid plant quarantine regulations restrict certain plants and products from entering the country, and travelers' luggage and souvenirs from abroad undergo careful inspection upon reentering.

By an act of Congress, USDA plant pest control division regulates the movement of certain pests around the country by scientists. Permits are issued and safeguards specified to prevent the outbreak of any more foreign invaders.

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ENTOMOLOGY

Hard-Bitten Researchers Study Sandfly Tastes

➤ THERE IS only one reliable way to study the pesky problem of man-biting sandflies in Jamaica, a Kenyan insect expert told members of the International Congress of Zoology in Washington, D. C.

Dr. Douglas S. Kettle of Royal College, Nairobi, said he repeatedly dispatched a team of five bare-skinned men into fields infested by three types of tiny sandflies and took notes on what happened.

"It was relatively simple to calculate the preference of each species for limbs and site positions," Dr. Kettle reported.

Dr. Kettle especially wanted to see which insects preferred which team member at various times of the day and night. Three teammates were dark-skinned Jamaicans. Another team of two were light-skinned Englishmen.

In general, he reported, the Englishmen got bitten by more sandflies than the Jamaicans, especially in daylight hours. One Jamaican was so unattractive to sandflies that it was necessary to drop him from the experiment.

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