

## Fruit Fly War May be Long—*Continued*

fact, federal and state entomological workers combat them as furiously as though they were outside a quota and were trying to slip past the gate.

There is a cherry fruit fly and an apple fruit fly, a fruit fly that plagues currants and gooseberries, and a whole ill cousinship of them. The apple fruit fly is at present making a good deal of a nuisance of itself in commercial blueberry plantations, and is having to be fought with arsenate dusts spread by the most approved chemical warfare methods. It does not do much damage to commercial apple orchards, because the sprayings they regularly receive against the much worst pest, the codling moth, wipes out the fruit fly as an incident of the battle.

A Rio Grande patrol, not by soldiers but by entomologists, guards the United States against an enemy more to be dreaded than any number of dusky bandits or insurrectos. For the Mexican fruit fly, a close relative of the Mediterranean fruit fly, is quite as evil a customer as its old-world relative and quite as little to be desired as an immigrant.

The corps of American entomologists who maintain this "Wacht am Rio Grande" have one advantage over the Army. There is no objection to their crossing the border; on the contrary they are welcomed by the Mexican authorities, and they maintain a laboratory in the Mexican capital.

The principal center of the border guard against the Mexican fruit fly is at Brownsville, but the entomological scouts range the whole border. In addition to the U. S. Federal workers, the very much interested state of California annually sends an entomologist into Mexico to look over the fruit fly situation.

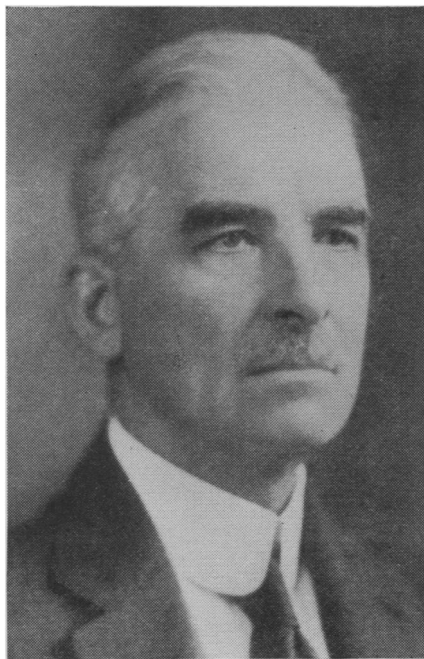
This Watch on the Rio Grande is nowhere as costly as a military guard, though it probably prevents a great deal more damage. The annual appropriation for entomological investigation is usually between \$20,000 and \$25,000, and the cost of maintaining the quarantine runs about \$100,000 a year.

*Science News-Letter, April 27, 1929*

### Florida and U. S. Cooperate

*Entomology*

The State of Florida and the U. S. Department of Agriculture, through its bureau of entomology, will be close allies in the impending war of eradication against the Mediterranean fruit fly, the destructive alien pest that



DR. C. L. MARLATT, chief of the Bureau of Entomology, U. S. Department of Agriculture, field-marshal over the scientific army that holds invading insect pests at bay

has invaded Florida citrus groves in the vicinity of Orlando. This was announced to Science Service by Dr. C. L. Marlatt, chief of the bureau of entomology.

The alliance is like the association of the defending armies in the late war, in that a single officer has been appointed to the command of the joint forces. This is Dr. Wilmon Newell, of Gainesville, plant commissioner of the Florida State Plant Board, dean of the state agricultural college and director of the state experiment station.

The war is to be one of absolute eradication, Dr. Marlatt emphasized. It will involve the complete destruction of all fruit in the area known to be infested, though the trees themselves will not have to be destroyed. Useless trees, however, such as grow in neglected back yards or straggle in real estate subdivisions that were once orchards but are not now cultivated, will be given to the ax.

As yet no estimate has been prepared of either the cost of the campaign or of the amount of fruit that will have to be destroyed. The fight is in its first emergency stages, and funds on hand for emergency purposes are being used by both state and federal authorities. Many members of congress have expressed an anxious

interest in the situation, and a special appropriation will probably be proposed. Its amount, however, has not yet been determined.

"We all have a full appreciation of the gravity of the situation, but there is no occasion for or evidence of panic."

Thus J. H. Montgomery, assistant plant commissioner of the Florida State Plant Board, summed up the Mediterranean fruit fly situation as seen by Florida scientists and agricultural administrators.

"The fly was discovered in Orlando," Mr. Montgomery said. "It is still confined to the vicinity of that city, and at no place is more than six miles away. The state quarantine covers a much wider territory, however. It applies to all fruits and vegetables which might harbor the fly's eggs and thereby increase its spread."

"This state quarantine is designed to safeguard not only the rest of Florida but other states as well."

"There are now fifty state and ten federal inspectors at work, and the joint state and federal funds now available take care of the immediate situation. There is no thought in the minds of either the officials or the public except complete eradication of the pest."

*Science News-Letter, April 27, 1929*

### Strange Changelings

*Entomology*

E. G. REINHARDT, in *The Witchery of Wasps* (Century):

There is a curious belief common in China and India concerning a species of mud-wasp which builds its clay nests in houses and stores the cells with caterpillars. The early observers never suspected that the caterpillars were placed there as food for a larva which would hatch from an egg deposited in the cell by the mother wasp. With characteristic Oriental mysticism they thought that the wasp had adopted a caterpillar for its child, which by appropriate incantations it would magically transform into a wasp. The story goes that the foster-parent would select a caterpillar, carefully install it in a clay nest, and, while plastering up the opening, would hum a mysterious chant over it. This song would start a slow transformation in the caterpillar. In the silent grave throughout the winter the marvelous transformation would continue, and in the spring a perfect winged wasp would emerge!

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