

## ENTOMOLOGY

# Fewer Borers in Corn

**"Very light infestation" by dread corn borers forecast for year's first batch of worms, though late summer attacks could be heavy.**

► **HOUSEWIVES** AS well as farmers and canners can breathe a sigh of relief. They will probably find fewer of the dread corn borers eating up their corn this year.

A hopeful forecast of "very light infestation" by corn borers was made by U. S. Department of Agriculture officials to **SCIENCE SERVICE**. They based their estimate on survey reports turned into the Bureau of Entomology and Plant Quarantine during June and July.

"It is, however, still too early to tell definitely about late summer attacks from this pest," Bureau entomologist Kenneth Haynes stated. "Proper weather conditions may set up a feast table for this year's second crop of worms, even though the first batch has so far proved light."

About five weeks are required for the corn borer to grow to maturity and lay its eggs. These hatch into the young larvae or worms, that bore into the stem, the stalk or the ear of corn, producing two and even more broods of the injurious insects during a single growing season.

The best ways to beat the corn borer's attack are by thorough clean-up of the crop residues, spraying or dusting plants with DDT, the deadly parathion or other prescribed insecticides, and planting borer-resistant corn.

The European corn borer was first discovered in this country near Boston 40 years ago. Since that time, it has slowly chewed its way westward and is still spreading. It wormed its way into 17 previously unattacked counties in seven states during 1950.

Cash value of the crops it destroyed last year: nearly \$85,000,000, compared to \$350,000,000 in 1949. Department officials are hoping the damage will be even lighter this year.

Science News Letter, July 21, 1951

## AERONAUTICS

## Turbo-Compound Engines Power New Flying Boat

► A **NOTABLE** feature of the new Martin Marlin flying boat, which recently made its first flying test, is the reciprocating engine-turbine combination with which it is powered. This gives great power for takeoff from rough water and extreme fuel economy for its long-range flights.

The engine is built by Wright Aeronautical Corporation, Woodridge, N. J., and is claimed to be the only compound aircraft engine now in production. It is a combination of a standard 18-cylinder Cyclone engine and three small turbines.

These turbines are driven by the exhaust gas of the Cyclone. They generate approximately 500 horsepower by themselves but do not require the use of additional fuel by the engine. This means a total of about 20% more power with no additional fuel consumption, and relatively little addition in size or weight to the power plant.

The new flying boat in which the engine is in use, a product of the Glenn L. Martin Company, Baltimore, Md., and built for the U. S. Navy, is designed as an anti-submarine weapon. Officially it is the Martin P5M-1 Marlin. It is a huge, gull-winged

scaplane, powered by two of the Wright turbo-compound engines, each developing 3,250 horsepower. Its wingspan is 118 feet. Its length is approximately 90 feet.

Another notable feature of this new seaplane is its long so-called afterbody, the keel and the lower part of the hull being under water from near the nose to the sternpost. This afterbody makes for better landings and takeoffs in rough water. Maneuvers in the water are aided by a pair of hydroflaps, underwater rudders on each side of the hull near the tail.

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