

The European Corn Borer in North Dakota

By

J. A. Munro¹ and R. L. Post²

The recent finding of the European Corn Borer³ for the first time in North Dakota presents a new problem for North Dakota farmers. The pest was reported on August 12 to the North Dakota Agricultural College by Mr. Albert Harris who found a single specimen of the worm in his patch of sweet corn at Hillsboro. A further search of the same patch by entomologists of the department of agricultural entomology revealed another larva in a nearby corn stalk. Identification of the worm, as the European Corn Borer, has since been confirmed by the Division of Insect Identification of the Bureau of Entomology and Plant Quarantines, Washington D. C.

The European Corn Borer was probably brought into this country from Hungary and Italy in shipments of Broom corn several years prior to the finding of the pest near Boston, Massachusetts, in 1917. Since then it has spread steadily at the rate of 50 miles or more per year throughout the corn-growing area of the United States and Canada. It has already become a major problem in such nearby States as Wisconsin, Iowa and the southeastern counties of Minnesota. Since its first recorded presence in Minnesota 2 years ago annual surveys conducted by Dr. F. Gray Butcher, Extension Entomologist, and other members of the entomology staff of NDAC did not reveal its presence.

The adult moth is pale yellowish brown with irregular dark bands across the wings and an expanse of about one inch. The moths are strong fliers, moving mostly at night and winds may carry them for miles. The female moth lays upwards of 500 or more eggs in groups of a few to upwards of about 50 on the undersides of the leaves of the corn plants, and to a much lesser extent a number of other thick stemmed plants.

The eggs require from about a week to 10 days to hatch and the young worms begin their feeding between closely appressed leaves;

later on they bore into all portions of the plants above the ground level. When numerous, the tunneling worms severely weaken the stalks, stunt the plants and materially lessen the yield. The mature worm is pinkish white to light gray in color with rows of tiny black dots along its back and sides.

Most satisfactory control of the European Corn Borer has been had by destroying the worms in the wintering over stage, by plowing under the stalks stubble and other parts of the plants which might provide shelter for the pest. Burning, shredding, or cutting of the stalks and making them into silage also destroys the worms. Some degree of control has been obtained by the introduction of insect parasites of the European Corn Borer and it is planned, in cooperation with the U. S. Bureau of Entomology, to introduce the most effective of these parasites for release in areas where the borer may become established. It is probable however that the European Corn Borer will not for a few years at least become a widespread pest in North Dakota. It will aid materially in keeping a check on its spread if farmers throughout the state will send specimens of questionable borers found in corn stalks to the NDAC for identification. The European corn borer is not spread in seed corn.

¹Entomologist, NDAC Experiment Station.

²Associate Entomologist, NDAC Experiment Station and State Seed Department.

³*Pyrausta nubilalis* Hubn.