IN THE evaluation of commercial corn hybrids for adaptation under California conditions, their reaction to Fusarium ear rot is an important consideration. The importance of this disease, caused by *Fusarium moniliforme* Sheld., has been discussed by Smith and Madsen. The pathogen has a wide host range and is generally distributed in the corn-growing areas of California. Damage is particularly serious in certain seasons in the Sacramento-San Joaquin Delta area and in the lower Sacramento Valley where corn is well adapted. Losses result from reduced yield and lowered quality of shelled grain.

Various environmental factors also affect losses. High relative humidity at silking time favors infection and during the maturing period when moisture is being lost from the kernels high relative humidity favors the spread of the damage over the ear.

Data were obtained in 1954 at Davis, Calif. that show the relationship of corn earworm (*Heliothis obsoleta*) infestation to Fusarium ear rot damage.

**MATERIALS AND METHODS**

A commercial hybrid corn variety trial was drill planted in May. Each plot consisted of 36 feet long and 40 inches apart and there were 6 replications. An excess of seed was planted and var.