CHAPTER 11

Insects and Mites That Attack Oats

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I. Introduction

OATS ARE SUBJECT to insect attack throughout the growing period of the plant, from the time the seed is planted until the grain is consumed as food or feed.

Hundreds of species of insects feed on oats. Some cause major damage, while others are injurious only under certain conditions. Many occur on the plant more or less accidentally and feed for a short time, but are not able to survive and reproduce. Few insects are specific to oats. Some of them restrict their diet to grasses and small grains, but others, including wireworms, white grubs, grasshoppers, armyworms, and cutworms, consume many kinds of plants.

Prior to 1950 the only practical control of insects attacking oats consisted of cultural practices such as time of seeding and harvesting, destruction of crop residues and volunteer plants, rotation of crops, and fertilization to promote rapid, vigorous growth. However, new insecticides and more efficient equipment for applying the chemicals, coupled with higher yields and prices, have made treatment with insecticides a practical means of control of insects on oats. But insecticidal control is ever-changing, and the more stable cultural practices for insect control are still emphasized.

For this presentation, insects that attack oats are grouped into those infesting the soil and those attacking the crop aboveground.

II. Soil Insects

Soil insects live in the soil, and the larvae feed on roots or underground portions of the stems. Because they are hidden, many of the injurious forms may escape attention.

1. Wireworms (Elateridae)

Wireworms occur throughout the world, but they are especially abundant in the temperate and subtropical zones.

True wireworms are the larvae of brownish to black, slender, active beetles with bodies tapering toward each end. The adult has a loose, flexible connection between the prothorax and middle part of the thorax. This loose joint contains a structure that enables the beetle to make a clicking sound and to jump or throw itself some distance when it is disturbed or placed on its back; because of this it is known as a click beetle.