

## INTRODUCTION

The cotton leafworm, *Alabama argillacea* (Huebner), is a leaf-feeding noctuid whose larval host range is apparently restricted to annual and perennial, malvaceous plants. However, adults feed on sugar solutions such as nectar or sweet, juicy fruit and thus can temporarily survive as far north as Canada and south into Argentina. There is no evidence of winter survival at these latitudes. Wild and cultivated host plants are available for the development of larvae throughout its home range in tropical America. If living host plants are available, the species may be capable of surviving throughout the year from near Veracruz, Mexico in the north to near Belo Horizonte, Brasil in the south (ca. 20 degrees latitude north and south of the equator). From this home range the moth migrates north toward the United States in northern summers (July-September) and south toward Argentina in southern summers (January-March).

Outbreaks of this insect may occur at almost anytime of the year throughout tropical America depending on rainfall and associated humid conditions. Widespread, general rainfall such as occurs with large low pressure weather systems often precedes and is associated with outbreaks of this insect. Throughout tropical America the timing of the appearance of moths is often related to planting of the local cotton crop and subsequent emergence of the plants. Since planting of the cotton crop is usually dependent on rainfall to supply the moisture needed for seed germination, both the availability of food and conditions suitable for migration appear to coincide in time. This phenological synchrony may be largely responsible for major outbreaks and pestiferous activities on cotton. However, the presence of the insect on cotton plants does not mean that unacceptable losses are imminent. Small numbers of worms can be tolerated by most varieties of cotton without causing unacceptable losses. Thus, a major research emphasis is currently being directed toward establishing the density of worms that can be tolerated on plants at different growth stages which will not cause unacceptable losses.

Historically, the cotton leafworm was about the only key pest of cotton in the United States. However, as chemical insecticides were introduced for its control in ca. 1873, the cotton leafworm was replaced as a key pest by other cotton pests. Evidence for this conclusion is provided by the extensive reviews of the species by Comstock (1879), and Riley (1885). Comstock also provided an extensive bibliography of the leafworm including references up to 1879 while Lima (1967) provided many South American references. Most of these references