UNCOMMON PESTS OF COTTON IN NORTHEAST LOUISIANA E. Burris, B.R. Leonard and D.R. Cook Louisiana State University Agricultural Center Louisiana Agricultural Experiment Station Baton Rouge, LA

Abstract

The past decade of cotton production in Louisiana has spawned several uncommon events associated with cotton insect pest management. Frankliniella occidentalis Pergande [western flower thrips] was identified as a new pest of seedling cotton in surveys conducted at the Red River, Dean Lee, Macon Ridge, and Northeast Research Western flower thrips were not previously Stations. reported as seedling pests of cotton. However, high population densities are often found in cotton flowers in July and August. Control measures for western flower thrips are limited. Increased population densities of Lygus lineolaris (Palisot de Beauvois) [tarnished plant bugs], are frequently associated with cotton fields planted adjacent to corn. However, studies conducted in 1998, indicate reproduction of tarnished plant bugs in pre-tasseling corn is very limited. Weed refuge areas adjacent to the fields appear to be the source of the problems. Studies are lacking on the significance of plant bug population densities in weed refuges. New pest management options (transgenic Bt cotton and selective insecticides) lack efficacy on tarnished plant bugs. Therefore, when plant bug control is needed, tank-mixing insecticides is the most common option for control. Tank-mixing often causes the selectivity associated with Bt cotton and the new insecticides to become an expensive liability. In 1998, high population densities of Spodoptera exiqua (Hubner) [beet armyworm] were caught in pheromone traps placed in cotton fields in a statewide trapping program. The statewide survey of beet armyworm populations indicates beet armyworm and Helicoverpa zea (Boddie) [corn earworm] population generations are overlapping in late June and early July. Pest management strategies to control overlapping generations are limited. Generally, the current insecticide options are expensive, and often must be initiated through the section 18 process. These events are labeled as uncommon because they are causing new strategies of cotton pest management to be developed. Furthermore, each of the above pests can be associated with serious levels of insecticide resistance.