

Arthropod Management

One major problem in cotton today is bollworm control. A bollworm is a caterpillar pest that attacks and feeds on cotton plants. This pest is a big problem because it poses a serious economic threat on cotton and its yield. The United States Department of Agriculture is evaluating the benefit of planting Bt cotton. Bt cotton is cotton that has been imbedded with a protein from a soil bacterium, *Bacillus thuriugiensis*. This protein has great activity against bollworms. Cotton that is infested with bollworm larvae has a higher chance of not producing its full potential, but Bt cotton has greatly reduced this threat. The economic damage that a bollworm can have is great; this is why the study and further development of Bt cotton is essential to producing an efficient and healthy cotton crop. The USDA has been testing Bt cotton to determine what is the most efficient and economical way to control bollworm populations. Our tests show that the percentage damage from bollworm to Bt cotton is less than in conventional cotton. Bt cotton has consistently had less damage and larval survival than its conventional cousin. This is similar to what was observed by Jackson et al. (2003), where Bt cotton had much less fruit damage and surviving larvae than non-Bt cottons. We are also evaluating the need for bollworm sprays for both Bt and non-Bt cottons. At this point, Bt cotton has not required an insecticide application for bollworms, but the non-Bt has. The Bollgard II variety is the undisclosed winner in my opinion, but further testing is needed and, will continue to be preformed by the USDA. Just as we have answered many questions about Bt cotton, many new questions are starting to arise. Through these tests we hope to be able to determine what is more profitable for cotton producers.