

Cost-Effective Alternative to Reduce Boll Weevil Impacts

- Cotton is a perennial plant that will resume growth following harvest in South and Central Texas, providing the potential for development of hostable fruit (squares and bolls) for boll weevil feeding and reproduction.
- Early harvest and stalk destruction, when performed on an area-wide basis, are among the most effective cultural practices for managing overwintering boll weevils.
- With the cost of destroying cotton stalks after harvest added to the narrow profit margins in cotton production, producers needed more efficient and more cost-effective alternatives for stalk destruction.

AgriLife Extension's Response

- Beginning the late 1990s and continuing through 2010, the Texas A&M AgriLife Extension Service and Texas A&M AgriLife Research implemented applied-research studies and delivered educational programs demonstrating the effectiveness of using herbicides rather than traditional mechanical methods to destroy cotton stalks.
- The agrochemical industry used the results of these field studies to obtain regulatory approval for herbicides that destroy stalks and to establish optimum application timing and product-use rates.



- A publication was developed to address this alternative cotton stalk destruction method, and it has been distributed to producer organizations and to more than 20,000 individual producers since 2003.
- Extension specialists developed and conducted extensive educational programs for producers across central, eastern, and southern portions of Texas on the best management practices for using herbicides to destroy cotton stalks. These programs resulted in more than 4,600 producer contacts from 2010 through 2017.

Economic Impacts

- Enterprise budgets were developed to assess the per-acre costs of using herbicides rather than mechanical means to destroy stalks in two regions of the state.
- Using herbicides to destroy stalks on 75% of the acres in the two regions resulted in an estimated \$4.2 million increase in net returns in 2017.
- This level of impact helps support an additional 27 jobs.