

Minimizing Pesticide Use While Improving Net Returns

- The impetus for integrated pest management grew out of concerns over insect resistance to insecticides and possible environmental harm related to using a purely insecticidal approach to insect control.
- Integrated pest management is a sustainable approach to managing pests that combines biological, cultural, physical, and chemical tools to minimize economic, health, and environmental risks.

AgriLife Extension's Response

- Collaborating with the Texas Pest Management Association, the Texas Department of Agriculture, and the USDA, the Texas A&M AgriLife Extension Service and Texas A&M AgriLife Research established the *Integrated Pest Management (IPM)* program in Texas in 1972.
- Methods used to control agricultural pests include growing resistant plant varieties, monitoring fields, implementing pest thresholds, using cultivation practices that minimize pest damage, and relying



on the natural enemies of pests to help with control.

- Seventeen AgriLife Extension IPM agents support cotton producers in 43 Texas counties by providing crop monitoring, weekly scouting reports, and assistance in making pest-management decisions.
- AgriLife Extension IPM agents also conduct on-farm applied research to evaluate new technologies and demonstrate them to producers.
- Information gathered through local crop monitoring, applied demonstration, and research is disseminated to producers through educational programs.
- In 2015, AgriLife Extension IPM agents conducted educational programs for more than 44,000 adult and youth contacts, scouted 54,159 acres of cotton, and shared information on IPM methods with a combined circulation and viewing audience of 19 million people through newsletters and radio and TV interviews.

Economic Impacts

- Survey results from 135 cotton producers managing 148,000 acres indicate an average increase in net returns attributable to the IPM program of \$43 per acre. That translates into a total increase in net returns of \$6.4 million, which supports an additional 58 jobs in Texas.
- This represents only a small fraction of the economic benefits, reflecting but a portion of IPM clientele. From a broader perspective, the IPM program's emphasis on using pesticides only as a last resort creates public value by reducing environmental and public health risks.