Integrated Pest Management (IPM) Program for Cotton

ECONOMIC IMPACTS OF EXTENSION EDUCATION

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MINIMIZING PESTICIDE USE WHILE IMPROVING NET RETURNS

- The impetus for integrated pest management grew out of concerns over insect resistance to insecticides, economic sustainability, 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, 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 avoiding infestations, growing resistant plant varieties, monitoring pest populations, conserving natural enemies, utilizing economic thresholds, and insecticide choice.
- Twelve AgriLife Extension IPM agents and Extension IPM Program Specialists support cotton producers in 37 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 2024, AgriLife Extension IPM agents conducted 218 educational programs, scouted 31,110 acres of cotton, and shared information on IPM methods with a combined circulation and viewing audience of over 560,000 people through newsletters, podcasts, blogs, and radio, newspaper and TV interviews.

ECONOMIC IMPACTS

- Survey results from 188 cotton producers managing 411,000 acres indicate an average increase in net returns attributable to the IPM program of $43 per acre. This translates into a total increase in annual net returns of $17.6 million, which supports an additional 128 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.