Integrated Pest Management (IPM) Program for Cotton

Economic Impacts of Extension Education

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, 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, and using cultivation practices that minimize pest damage.
- Ten AgriLife Extension IPM agents support cotton producers in 28 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 2021, AgriLife Extension IPM agents conducted educational programs for more than 172,000 adult and youth contacts, scouted 24,965 acres of cotton, and shared information on IPM methods with a combined circulation and viewing audience of 2.0 million people through newsletters, 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 164 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.

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