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Cotton IPM Education on the West Plains - 2007

Relevance. Cotton is the most important agricultural commodity in Hockley and Cochran Counties. The use of integrated pest management (IPM) for the production of cotton is critical for the protection of the environment, and for sustainability and profitability. The use of IPM is a national priority for agriculture and has been directed locally by the IPM Steering Committee since 1996. This educational effort has been directed to all cotton producers in Cochran and Hockley Counties, representing some 420,000 acres, with emphasis on those participating in the IPM Scouting Program.

Response. Texas Cooperative Extension developed the following educational opportunities to address this relevant issue:

- West Plains Cotton Conference in March with 45 attending
- Cotton Production Seminar, with Spade Coop in March, 63 in attendance
- Cotton Production Update with Gary Cain Insurance in April, 8 attend
- Cotton Irrigation Management Workshop in April, 5 attend
- West Plains IPM Update Newsletter from April through October, 16 issues to 350 recipients
- Radio reports with Jim Stewart and High Plains Radio Network on cotton issues from May through November
- High Plains Scout School in Plainview with 125 in attendance (presented weed id and herbicide injury) in June
- Cotton Harvest Aid meetings at Buster's Gin and United Cotton Growers with 85 in attendance in October
- Established three cotton variety trials which demonstrated new experimental lines
- Evaluated 34 cotton lines for verticillium wilt tolerance with Dr. T. Wheeler, TAES
- Evaluated new products for cotton root-knot nematode management
- Evaluated variety performance for the new technology of Widestrike
- Compared conventional RoundUp Ready System to newer RoundUp Flex System varieties performance
- Provided daily IPM education to 12 cotton producers through scouting, scouting report, report interpretation, management suggestions, and management evaluation for insects, weeds, disease, and other agronomic considerations

The Texas Pest Management Association, Plains Cotton Growers Association and many supporters from the local agricultural industry contributed greatly to these educational endeavors.

Evaluation of the Cotton IPM educational efforts was conducted using a standardized Cotton IPM Survey for Texas. There were 50 evaluations sent out on October 26, 2007 to a random selection of West Plains IPM Update Newsletter recipients, including scouting program participants. Seventeen were returned before the deadline of November 16, 2007 for a 34% response.

Results.

Management practice / decision	USED BEFORE YEAR 2000	USED IN 2007	Percent Change
Soil sample for root -knot nematode	6 of 17 for *35%*	10 of 17 for *59%*	**+67 %**
Nodes above white flower	10 of 17 for *59%*	14 of 17 for *82%*	**+40 %**
Herbicide Tolerance	8 of 17 for *47%*	12 of 17 for *73%*	**+50 %**
Use of Verticillium tolerant varieties	5 of 17 for *29%*	7of 17 for *40%*	**+40 %**
Nodes above cracked boll	9 of 17 for *56%*	14 of 17 for *82%*	**+56 %**

- 16 of 17 (94%) indicated that they now regularly monitor or have their crop monitored for pests and natural enemies, as compared to 70% in 2006
- 16 of 17 (94%) also indicated that IPM reduced their risks associated with crop production
- 16 of 17 (94%) of those responding indicated that the IPM program had been instrumental in their decision to adopt new technology on the farm
- All respondents (17 of 17 for 100%) indicated that IPM usually maintains or increases yields while reducing input costs **resulting in increased net profits by an average of $29.44 per acre**. Which is up from $25.83 in 2006
- When asked to assign a figure to represent the **value of the IPM Program to their operation** including monitoring crop development, pest and natural enemies, conducting applied research and demonstrations and providing educational programs, they indicated **$40.91 per acre**. This value is up from $32.14 in 2006

The Cochran/Hockley IPM Steering Committee members are: Sherri Clements, Rex Carr, Duane Cookston, Mike Thetford, Matt Walker, Bryan Bentley, Chris Locke, Kevin Silhan, and John Barker. Thank you to each one of these folks for their valuable input and direction into the IPM program.

Plans are to continue this long-term educational program for cotton producers in Hockley and Cochran Counties. Current and future technologies based on Integrated Pest Management principles to improve profitability and sustainability, as well as protect the environment will benefit all Texans.