Plan Title (ID) Weed Resistance Prevention Education (2871) - *Outcome*

Plan Originator Siders

Relevance/Issue Description The confirmation of herbicide resistance weeds in adjacent states has caused the Hockley and Cochran IPM Steering Committee to be concerned for weed resistance to develop in our cotton acres. Therefore, there is need for educational efforts to be directed to cotton producers and others involved in weed management to prevent resistance development in Hockley and Cochran Counties.

Target Audience Crop Producers

Additional descriptive information, if any, on Target Audience:

The concern for weed resistance comes from the over reliance on Roundup used by Roundup Ready cotton producers (approximately 375) in Hockley and Cochran counties. This accounts for a majority of the irrigated cotton acres (160,000 acres). The primary target audience came from IPM scouting program participants.

Educational Response

- Weed Herbicide Resistance Mgmt at West Plains Cotton Conference - Event date: 01/12/2006
- Pesticide applicators education - Event date: 02/25/2006
- Cotton Producer meeting - Event date: 03/27/2006
- West Plains IPM Update - Weed Resistance Section - Event date: 06/30/2006
- Weed Resistance Symposium - Event date: 07/07/2006
- Weed Resistance Management Media - Event date: 07/31/2006
- Cotton turnrow meeting series - Event date: 09/30/2006
- Weed resistance demonstration - Event date: 09/30/2006

Additional descriptive information, if any, on Educational Response:

This agent made a presentation at the West Plains Cotton Conference in January in Levelland on Weed resistance Management; in February another producer meeting was held that I organized and went in-depth into weed resistance; throughout the growing season I published information in the West Plains IPM Update newsletter about management of weeds and weed resistance; in a special issue to the recipients of the newsletter I made available an internet training module produced by the National Cotton Council; many oneon one visits, phone calls and electronic correspondents were made with individuals about weeds and their management with consideration to resistance development.

Partnerships and Collaborators

- Texas Agricultural Experiment Station (TAES)

Additional descriptive information, if any, on Partnerships and Collaborators:

Evaluation Strategy Ultimate client change: **Behavior Change/Adoption of Best Practice or Technology**

Additional descriptive information, if any, of Evaluation Strategy:

Ten program participants were selected and visited with by phone. I read the series of questions and they responded from a post retrospective view. The results were then tabulated and summarized.

Customer Satisfaction / Clientele Feedback Results 100% (10 of 10) answered YES that knowing about weed resistance would help them make better decisions. 60% (6 of 10) said either "thank you", "good information", "keep up good work", or "good job".

Outcome Results *100% (10 of 10) increased their knowledge of the necessary components to achieve weed control from a 2.5 before to 3.8 after program (32.5% increase) on a 1-4 understanding scale (1=Poor, 2=Fair, 3=Good, and 4=Excellent). *100%

(10 of 10) increased their understanding of active ingredients, site of action, and mode of action from a 1.9 before to 3.3 after program (35% increase) on a 1-4 understanding scale *100% (10 of 10) increased their knowledge of how herbicides are grouped into families from a 2.3 before to 3.6 after program (32.5% increase) on a 1-4 understanding scale *100% (10 of 10) increased their understanding of resistance vs. tolerance from a 1.5 before to 3.6 after program (52.5% increase) on a 1-4 understanding scale *100% (10 of 10) increased their knowledge of how resistant weeds are selected from a 1.4 before to 3.3 after program (47.5% increase) on a 1-4 understanding scale *100% (10 of 10) increased their understanding the conditions, herbicides, and plant characteristics that increase risk of resistance development from a 1.4 before to 3.5 after program (52.5% increase) on a 1-4 understanding scale *100% (10 of 10) increased their knowledge of who to contact when resistance is suspected from a 1.8 before to 3.7 after program (47.5% increase) on a 1-4 understanding scale *100% (10 of 10) increased their knowledge of the steps to manage resistant weeds from a 1.3 before to 3.3 after program (50% increase) on a 1-4 understanding scale *100% (10 of 10) increased their understanding of how crop rotation and weed control techniques can decrease resistance from a 1.5 before to 3.6 after program (52.5% increase) on a 1-4 understanding scale *100% (10 of 10) increased their knowledge of how to use chemical weed control while minimizing resistance risk from a 1.4 before to 3.6 after program (55% increase) on a 1-4 understanding scale

Benefits / Impacts All participants said that knowing more about weed resistance management will help them make better decisions. This will be a positive impact for both the environment and economic sustainability by making pesticides (herbicides) used necessary, and cost effectively.

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Future Program Actions Continue to educate cotton producers of the risk of weed resistance throught the IPM Program. I have contacted the National Cotton Council on obtaining the Weed Resistance training module on compact disc vs. on-line training. Provide producers with weed management alternatives to over relied upon systems and for specific weeds.