

2009 Wheat Pest Management Outcome for the Northern High Plains of Texas

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Relavance:

In the northern High Plains of Texas, which includes the Panhandle region, over 2.2 million acres of wheat are planted each year. Approximately 1.5 million acres are non-irrigated while 700,000 acres are irrigated. It is imperative that wheat producers and others that assist them in making decisions have an understanding of how integrated pest management affects profitability. In order for producers to make economically sound management decisions they need the latest and most updated information on pest conditions and pest management practices. An outbreak of Russian wheat aphid infestations during the growing season was the heaviest since Russian wheat aphids were first detected in 1986 on the Texas high plains.

Response:

Efforts were performed throughout the year to address all of the pest issues producers encountered during the growing season. Special emphasis was directed to the Russian wheat aphid outbreak

Target Audience

The target audience included wheat producers and crop consultants within the northern high plains of Texas and the Texas Wheat Producers Association.

Resource Acquisition

Funds budgeted for travel from the Texas A&M University, Department of Entomology were used for travel to educational events in District 1 and District 3. A \$3,000 grant from Cheminova was secured for a field study to evaluate insecticide control of greenbugs and Russian wheat aphids.

Education Events

Educational wheat conferences and field days, as planned by county extension agents, were conducted during 2009 in District 1 and District 3. Meetings were held in Canadian, TX for Hemphill county; Claude, TX for Armstrong county; Dalhart, TX for Dallam, Hartley, Moore, Sherman, and Hansford counties; Perryton, TX for Ochiltree and Lipscomb counties; Pampa, TX for Gray, Carson, Armstrong, and Roberts counties, Seymour, TX for Baylor county; and Amarillo, TX for Potter, Randall, and Oldham counties. A field day was held at the Texas AgriLife Research and Extension and USDA-ARS station at Bushland, TX. A total of 412 attended these meetings. Presentations were made to attendees about wheat pest identification, pest monitoring, IPM thresholds, pest management practices, and insecticide selection.

Farm visits and telephone calls were taken to assist producers in making decisions for the management and control of wheat pests in 2009.

Media Efforts

Three issues of the Panhandle Pest Update were devoted to wheat pests that producers were confronted with during the growing season. Topics included pest status and management practices for the Russian wheat aphid, greenbugs, Brown wheat mites, army cutworms, and armyworms.

An in-house Texas AgriLife Extension e-mail was sent to extension agents in District 1 on January 20, 2009 to inform them of the potential problem with Russian wheat aphid. Other news articles and interviews with local radio and television stations and with the Texas Farm Bureau statewide network were made to inform wheat producers of the severity of the Russian wheat aphid outbreak

Result Demonstrations

A field study for the control of greenbugs and Russian wheat aphids was initiated on March 16, 2009 on a producer's field near Dimmitt, TX. Eight insecticide treatments were arranged in a randomized block design containing 3 replications. Results indicated the application of the chemical standard, chlorpyrifos, was still effective and superior to the other insecticide treatments for control of both greenbugs and Russian wheat aphids. A summary report for this study is available upon request.

Results:

A program evaluation survey at the meeting in Pampa, TX for Gray, Carson, Armstrong, and Roberts counties was given to producers by the sponsoring county extension agents. The following survey results for wheat pests are taken from Brandon Dukes, CEA/ANR Roberts County, 2009 Wheat Production and Management Outcome summary report.

Response Rate – A total of 78 producers attended the educational events. Fifty-nine producers completed evaluation surveys for a response rate of 76%.

Acers Impacted – The 59 producers who completed evaluations owned or managed a total of 61,576 acres of wheat.

Knowledge Gained – The amount of knowledge gained by producers was evaluated using the retrospective post method. Overall producers exhibited a knowledge increase of 43% for insect identification, 56% for IPM thresholds for wheat pest management, and 46% for insecticide selection.

Adoption of Practices – Producers were asked their intention to adopt certain practices related to wheat production and management. After the program 50% stated they would select insecticides that limited the impact on beneficial insects. And, eighty-one percent stated that they would probably or definitely utilize IPM thresholds when making management decisions regarding insect control.

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