

CORN & GRAIN SORGHUM PROMOTION BOARD – 2014

Title: Insect Control in Grain Sorghum

Investigators: Gus Lorenz and Nick Seiter

Production System: Grain Sorghum

Status: Year 2

Stated Goal: Insect Pest Education and Selecting Insecticides for Control of Corn Earworm and Other Insect Pests Of Grain Sorghum

Specific Objectives:

1. Increase awareness of the impact insects pests can have on production
2. Provide growers and other decision-makers with the proper tools to make decisions on insect pest populations in their fields
3. Overall improvement of insect pest management in grain sorghum in Arkansas and increased adoption of IPM in production
4. Determine efficacy of selected insecticides for control of grain sorghum pests

What We Accomplished in 2014

1. We have two foliar trials with selected insecticides planned. We have grain sorghum planted at Marianna and Rohwer to address headworms, midge and sugarcane aphid. With resistance to pyrethroids beginning to appear in corn earworm this type of work is needed to make recommendations for growers and clientele. We need more information on efficacy of materials for sugarcane aphid and midge. We are looking for materials that will not flare aphids when we control midge.
2. We have conducted 5 scouting schools which included information on grain sorghum scouting. We also hand out beat buckets to scouts and consultants with Promotion Board Logo at the trainings and to individuals during the growing season. We have given over 100 buckets at scout schools and IPM meetings.
3. We prepared a 13 minute video on scouting sorghum last year
4. We are currently educating growers on our new threshold for corn earworm and fall armyworm developed with colleagues in MS and TN. **Based on our preliminary work, The threshold for these pests is one per head and not two per head.**
5. We wrote and got approved a Section 18 for Transform to control sugarcane aphids (SA). We have been surveying fields, reporting movement of SA. We discovered it in Ashley and Chicot Co. and subsequently have tracked it to Desha, Phillips and most recently Lee County. We have released information through the UA Crop Blog, Twitter, and Pest Patrol Hotline with pictures and information on the development of this new pest on grain sorghum in Arkansas.



SA found in Chicot Co.

Sugarcane aphids found in Lee Co.

6. With the outbreak of SCA in Arkansas we expanded trial work to include studies on SCA including 2 trials on efficacy of SCA, 2 trials on insecticide tank mixes and another on

adjuvants with insecticides all conducted at Rohwer. Our intent was to look at tank mixes for multiple pests to see if there was antagonism with pyrethroids and other insecticides on control for SCA or other target pests. The adjuvant trial was conducted to determine if some adjuvants worked better than others for control. For example, we evaluated crop oils, blends, non-ionic, organosilicone, etc. We also had a midge trial and a headworm trial from which we also took data on SCA at Marianna. The purpose was to look at insecticides for control of midge and headworm and the impact on SCA. All told, we conducted 8 trials on grain sorghum this year. Data is forthcoming.

Note the increase in yield from one application of an insecticide over the untreated check in Figure 1. Note: Transform, Dimethoate and Lorsban are the only products currently labeled for control of SCA in grain sorghum.

