

PROGRESS REPORT January 2008

TITLE: **Managing Pests of Stored Grain**

INVESTIGATOR(S): Kathy L. Flanders, Entomology and Plant Pathology, Auburn Univ. and Warren Griffith, Regional Extension Agent, Alabama Cooperative Extension System

OBJECTIVES:

Train stored grain management advisers
Maintain network of phosphine gas detectors

JUSTIFICATION

On-farm grain storage provides farmers with the flexibility to wait for better commodity prices, to operate value-added businesses such as selling grain or feed in small lots on the retail market, to increase efficiency at harvest time, and to save seed for the next year's crop. A recent survey in Alabama showed that, while many producers were using IPM tactics on stored grain, few were using them in the most effective way.

Each year new technologies become available, and different pesticides are registered. It is essential that we be aware of changes in technology and IPM practices. This project is a logical continuation of our IPM programs for stored grain in Alabama. Educational materials have been developed to provide IPM education to stored grain practitioners. Educational workshops have been held to provide county agents and farmers with hands-on training in stored grain IPM tactics, grain fumigation, and aeration. 10 phosphine gas detectors have been purchased for use by farmers. More information on stored grain can be found at:
<http://www.aces.edu/dept/grain/StoredGrainInformation.php>

PROGRESS

Three people from Alabama attended the Seventh National Stored Product Integrated Pest Management Training Conference: Kathy Flanders; Warren Griffith, and Joe Lambrecht from Oakview Farms Granary. The training was in Oklahoma in April 2007. This in-depth training provided information needed to safely store high quality grain on the farm. The three day intensive training session was taught by the top stored grain management experts in North America. Combined lecture/hands-on activities helped bring us up to speed on the latest techniques used in stored grain management in addition to providing training on the basics such as sanitation, aeration, moisture management, insect monitoring, and grain marketing.



Traps that can be used to detect stored grain pests



Calibrating a sprayer used to apply grain protectant



Apparatus for applying a heat treatment to stored grain

In July 26, 2007, a stored grain IPM workshop was held in Leighton, Alabama. Kathy Flanders; Warren Griffith, Joe Lambrecht, and Russ Patrick (Univ. of Tennessee) conducted the workshop and presented a summary of what was learned at the training conference in Oklahoma. The program was well attended, with 40- 50 people attending the workshop.

Warren Griffith presented a poster and provided hands-on exhibits on stored grain management at the North Alabama Corn Meeting in late November, 2007.

A second workshop was conducted by Kathy Flanders and Warren Griffith in south Alabama (McCulough) in early December. Ten people attended that training session.

Phosphine gas detectors, located in Belle Mina, Headland, Autaugaville, Alexandria, and Atmore, are being calibrated on a rotation, with the goal of calibrating each detector once a year.

Stored Grain Pest Management Workshop

July 26, 2007

Agenda

Meet at the TriGreen Equipment (John Deere Place in Leighton, AL) in Colbert Co. by 10:00 AM (coffee and donuts at 9:45 AM)

10 AM-10:15 Why Stored Grain Pest Management is Important - Brian Glenn, Glenn Acres Farm

10:15-10:30 Harvesting and Drying Grain, Aflatoxin issues – Warren Griffith, Regional Extension Agent, Alabama Cooperative Extension System

10:30-10:50 Grain Bin Preparation and Grain Loading – Joe Lambrecht, Oakview Farms Granary and Russ Patrick, Extension Entomologist, University of Tennessee

10:50-11:10 Aeration – Joe Lambrecht, Oakview Farms Granary

11:10-11:50 Monitoring Insects – Warren Griffith and Russ Patrick

11:50-12:00 Move to Northwest Shoals Community College for lunch

12:00-12:30 lunch provided

12:30- 12:45 Temporary Grain Storage - Kathy Flanders, Extension Entomologist, Auburn University

12:45-1:30 Grain Protectants and Bin Treatments – Kathy Flanders

1:30-1:50 New Approaches for Managing Stored Grain Pests – Vacuum Atmosphere (Joe Lambrecht), Catalytic Drying (Russ Patrick), Carbon Dioxide Monitors (Kathy Flanders)

1:50-2:15 Fumigation - Kathy Flanders

2:15-2:30 Preparation of a fumigation management plan: using the FMP Creator Utility - Kathy Flanders

Sponsored by the Alabama Wheat and Feed Grain Check off Fund

Contact Heath Potter, Regional Extension Agent, Alabama Cooperative Extension System for more information. Telephone: 256-476-8885, pottej@auburn.edu

Pesticide recertification points and Certified Crop Adviser Points will be available.

Agenda Southwest Alabama Stored Grain Pest Management Training

Date: Tuesday December 4, 2007

Place: Volunteer Fire Department in McCulough, Escambia County

Commercial Applicator Pesticide Points will be awarded to those who attend.

Time and Speakers:

9:30 Why Store Grain, and Why Is Pest Management Important? Eric Hall

9:45 Sanitation and grain bin preparation, Kathy Flanders, Extension Entomologist, Auburn University and Warren Griffith, Regional Extension Agent, Alabama Cooperative Extension System

10:15 Loading, Moisture Content, Warren Griffith

10:45 Aeration, Kathy Flanders

11:15 Monitoring, Warren Griffith

11:45 Grain Protectants, Kathy Flanders

12:00 lunch

1:00 Empty Bin Treatments, Top Dress Treatments, Kathy Flanders

1:15 Fumigation, Kathy Flanders

2:00 Preparing a Fumigation Plan, Kathy Flanders

2:30 Adjourn