Summary Report Prepared for the Wheat and Feed Grains Commodity Grants Program
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Project Title: Monitoring for Insecticide Resistance in Key Pests of Stored Corn in Alabama

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Summary:

The objective of this project is to determine the susceptibility of Alabama field strains of maize weevil and red flour beetle to pirimiphos methyl (Actellic®). In summer/fall 2005, we visited five farms located in different parts of Alabama to evaluate stored grain insect problems and to collect insect samples on stored corn for use in our experiments. Farmers at the sites were interviewed with the aim of understanding their historical pest problems and pest management practices. The insects were collected using probe traps deposited overnight in wheat bins, and were later identified in the laboratory. The two key insects collected on stored corn in most of the sites are maize weevil (*Sitophilus zeamais*) and red flour beetle (*Tribolium castaneum*), and Indian meal moth, *Plodia interpunctella*. The insects at the various sites are now being reared separately (by site) on corn in the laboratory to establish a good supply of individuals of each strain for use in the insecticide resistance bioassays. Experiments are currently ongoing to determine level of insecticide resistance in our local pest strains.