

Arkansas Wheat Promotion Board
Quarterly Progress Report – November 2002
Cropping Systems by Merle Anders

TITLE: Helping Arkansas rice farmers exploit market opportunities by improved use of soybean, wheat, and corn in rice rotations.

OBJECTIVES:

1. Provide a set of management guidelines that farmers can use to assist them in maintaining their profitability should they change their rotations.
2. Explore the potential of using short-duration rice, soybean, wheat, and corn varieties in a range of crop rotations.
3. Measure the effects of fertility levels and crop sequences on pest and disease incidence in existing and new rotations.
4. Explore the use of conservation tillage in a range of rotations.
5. Determine the feasibility of using corn in rice based cropping systems.
6. Test existing cropping systems models that include the crop species used in this study.

ACTIVITIES: The respective summer crops of rice and soybeans were planted into the wheat plots that will be planted into wheat this fall. The summer soybean crop was not impressive with the no-till treatment yielding better than the conventional till treatment. The rice crop was excellent for a late crop. Harvesting of all the summer crops was delayed because of continual rainfall in October and early November. We were able to get all the summer crops harvested and the wheat is being planted as this report is being written (November 20). The wheat variety Shiloh was not available and has been replaced with a recent release from the University of Arkansas. Because of the late planting date we will apply all the N fertilizer and have increased the planting rate to 3 bu a⁻¹.

Wheat yields from the crop harvested earlier in the year have been summarized and will be included in the yearly report.

TITLE: Matching wheat phosphorus fertilizer recommendations to soil type, rotation, and variety.

OBJECTIVES:

1. Determine the utility of the phosphorus test currently used and the test previously used to correctly reflect wheat plant uptake and yield.
2. Determine the differences in P use for different varieties and rotations for three soil types.
3. Provide a knowledge base that will underpin phosphorus recommendations that take into account soil type, rotation, and variety.

ACTIVITIES: This project did not receive funding thus there was no activity. We hope to secure funding for this project in the future.