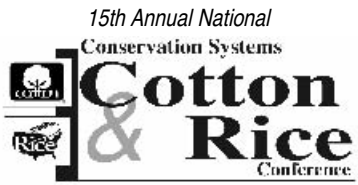
lowing year's soybean and cotton crop. Growers must consider initiating weed control after harvest to help reduce seed production of late emerging weeds. In the era of GR weeds, just rotating to corn is not enough without considering the total weed management in the corn crop and continuing after harvest.



SOYBEAN PRESENTATIONS

Program 5SB-2

Yield And Economics Of Seed Treatment On Soybean With Different Maturity Groups And Planting Dates

Presented by Dr. Normie Buehring
Research Professor/Senior Agronomist, Mississippi State University

Very limited information is available regarding soybean maturity group (MG) response to insecticide-seed-treatments and planting dates. We selected one productive Roundup Ready variety per MG III, MG early (E) IV, MG late (L) IV, MG E V and MG L V. The MG response to a fungicide (APRON MAXX RTA) and an insecticide-fungicide seed treatment [APRON MAXX RTA (mefenoxam +fludioxonil) + CRUISER 5SF (thiamethoxam)] with three planting dates was evaluated in 2007-2009. Studies were planted in three 4-week planting intervals starting early to mid April through early to mid June at three locations (Verona, Starkville and Stoneville).

The results indicated a MG by planting date interaction for yield at all locations. At Starkville, all MG yields were higher with the April planting than May and June plantings. Yields at Verona were similar for MG E IV (AG 4403), MG L IV (Pioneer 94B73), and MG E V (DK 5058), planted in either April or May. The MG III (AG 3906), had the lowest yield and MG L V (DP5634) had the highest yield of all MG's across all planting dates. However, the MG L V was about two to three weeks later in maturity then the MG IV's.

With supplemental irrigation, the delta location (Stoneville) had the highest yields of all locations. The MG III's highest yield was planted in May, and was similar to the May planted MG L IV, MG E V, and MG L V varieties. All MG yields were similar and the lowest when planted in June. The highest yield for MG E V and MG L V were planted in April; and were not different from MG E IV and MG L IV planted in April. However, the MG E V and MG L V varieties usually matured one to three weeks later than the MG IV's and may require an extra irrigation. Both MG E IV and MG L IV showed no yield differences planted in either April or May and were higher in yield than MG III, MG E V and MG L V planted in May.

Although bean leaf beetle [Cerotoma trifurcata (Forster)] defoliation and thrips (frankliniella spp.) injury levels were very low at all three locations, the April planting most often showed more bean leaf beetle defoliation or thrips injury at V1 or V3 growth stage than May and June plantings, at all locations. APRON (APRON MAXX RTA) + CRUISER showed less defoliation and thrips injury than APRON alone at V1 and V3 with no differences between varieties. The yield for APRON + CRUISER and APRON alone were not different across MG and planting dates. APRON + CRUISER produced 1.8, 4.3 and 2.1 bu/acre more than APRON alone with low (Starkville), medium (Verona) and high (Stoneville) yield environments, respectively. Averaged over locations, the APRON + CRUISER yield was 2.7 bu/acre more

than Apron alone. The average returns above the cost of the CRUISER seed treatment cost ($8/ac) were $8, $14 and $19/acre more than APRON alone using $6, $8 and $10/bu soybean market grain prices.

These data suggest that for maximum yield, the April or May planting with MG IV's in both North Mississippi and the Mississippi delta is the most desirable. The MG III's are best suited for May plantings for both locations. June plantings at all locations resulted in the lowest yield of all planting dates. For June planting in North Mississippi, the MG L V is best suited. However, in the delta all MG's, except MG III, are suited for April planting; and MG E IV and MG L IV are better suited for May planting than MG III, MG E V and MG L V. All MG's June planting yields for the delta were 20 to 30 bu/acre less than April and the MG L V had the lowest yield. The insecticide-fungicide seed treatment provided an economic return on the investment, even with a grain market prices as low as $6/bu.

Acknowledgement

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Program 9SB-2

Arkansas Soybean Research Verification Program

Presented by Chris Grimes

Soybean/Wheat Research Verification Coordinator, University or Arkansas

Arkansas
ROW CROP VERIFICATION

DIVISION OF AGRICULTURE
RESEARCH & EXTENSION
University of Arkansas System

The Arkansas Soybean Research Verification Program (SRVP) completed its 28th year and represents a public exhibition of the implementation of research-based Extension recommendations in an actual field scale farming environment for soybeans. Since the Research Verification Program is subject to public scrutiny and funding, generally with producer monies, Extension makes a very strong attempt to implement these recommendations in a timely manner in order to fulfill the objectives of the program. The Soybean Research Verification Program Coordinators are Chris Grimes and Steve Kelley.

Objectives

1. To conduct on-farm field trials to verify the utility of research-based recommendations with the intent of optimizing potential for profits.

2. To develop an on-farm database for use in economic analyses and computer assisted management programs.

3. To aid researchers in identifying areas of production that requires further study.

4. To improve or refine existing recommendations which contribute to profitable production utilizing all production systems applicable to the commodity.

5. To increase county Extension agents expertise in the specified commodity.

6. Utilize and incorporate data and findings from the Research Verification Program into Extension educational programs at the county and state level.

Goals

The specific goals of the Soybean Research Verification Program are:

1. To demonstrate to producers that University of Arkansas soybean management recommendations developed from small-plot research are applicable to large-scale field applications