

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.

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Program 9SB-2

► Arkansas Soybean Research Verification Program

Presented by Chris Grimes

Soybean/Wheat Research Verification Coordinator, University of 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

and provide optimum yields and economic returns.

2. To evaluate the current University of Arkansas soybean management recommendations for completeness and determine where weaknesses in knowledge or information exist and further research is warranted.

3. To train new County Extension Agents in soybean production and provide experiences that will benefit the agent in his overall county programming with respect to soybean production.

Production System Simple Averages (1983-2010) of the Soybean Research Verification Program.

Production System	Number of Fields	Average Field Size (Acres)	Yield ¹ (Bu/A)	Total Specified Operating Costs ² (\$/A)	Break-even Operating ³ (\$/Bu)	Total Specified Operating and Ownership Costs ⁴ (\$/A)	Break Even Price ⁵ (\$/Bu)	Break-even Price With Land Costs ⁶ (\$/Bu)	Returns Above Total Specified Costs 75:25 Share ⁷ (\$/A)
Early Season Irrigated	14	57.4	43.2	\$110.84	\$3.03	\$224.48	\$3.86	\$5.22	\$17.29
Full Season Irrigated	247	51.6	43.9	\$110.05	\$2.37	\$199.63	\$3.13	\$5.41	\$55.73
Drought-tolerant Irrigated	48	55.3	43.7	\$117.84	\$2.78	\$173.84	\$4.11	\$5.38	\$25.03
Early Season Non-irr.	33	44.7	31.5	\$92.16	\$3.81	\$116.89	\$4.32	\$5.03	\$24.05
Full Season Non-irr.	74	47.5	32.2	\$94.54	\$2.45	\$127.33	\$4.80	\$5.62	\$49.03
Drought-tolerant Non-irr.	16	44.7	24.5	\$66.91	\$4.00	\$88.56	\$5.12	\$6.54	\$26.11
Sureka Case	26	48.2	32.2	\$114.51	\$4.01	\$156.47	\$5.51	\$9.91	(\$6.24)
Simple Averages	492 Fields	49.8	38.2	\$111.94	\$3.39	\$152.74	\$4.56	\$8.08	\$50.45

¹Yields adjusted to 15 percent moisture.

²Specified out of pocket expenses such as seed, fertilizer, herbicides, irrigation, etc.

³Price per bushel received by the farmer to equal total specified operating costs. Does not include land, overhead, risk, and management costs.

⁴Total specified operating costs plus ownership costs which include charges for depreciation and interest on all machinery and irrigation equipment, taxes, and insurance.

⁵Price per bushel received by the farmer to equal total specified operating and ownership costs. Does not include land, overhead, risk, and management costs.

⁶Break-even price per bushel plus a 25 percent crop share rent. Does not include land, overhead, risk, and management costs.

⁷A 25 percent crop share rent was assumed as a charge for a farmer situation. No cost sharing was assumed. Calculation applies to all represented years.

Program 1SB-2

► Soybean Production 2012 – Reducing Risk

Presented by Dr. Ronnie Levy
Soybean Specialist, LSU AgCenter

There are many production practices that reduce risk, but most come with a cost. Identify production practices that have been problems and take steps to reduce their risk. Use practices that have been proven to reduce risk. The costs of these practices often result in profitable dividends.

Variety selection - The single most important decision is variety selection. Spend the time to find proven varieties that have done well throughout your area and state. University Variety Trials are a great place to start. While one maturity group or variety may make production easy, select a few varieties from a couple of maturity groups best suited to your area. Environmental conditions have a major impact on yield. Growth stages spread over several weeks may capitalize on favorable weather instead of one bad weather event affecting the entire crop. Liberty-Link soybeans are an option to consider now that University yield data is available.

Fertility - Soil Test! Use recommended rates from reliable soils labs. Soil pH and availability of nutrients are the keys to healthy plants and high yields. Inoculate if there are any Bradyrhizobium japonicum bacterium concerns. Bradyrhizobium japonicum bacteria fix nitrogen from the atmosphere for use by the soybean plant. Low pH, sandy soils, flooded soil conditions, or no soybeans planted in the last three to five years would be a few of the reasons to inoculate. Soybeans require approximately four pounds of nitrogen per one bushel. Inoculation is very important! There are also many different inoculants on the market - they are not all the same.

Seedbed Preparation - Use a burn-down herbicide four to six weeks prior to planting. Even if you plan to use conventional tillage, a clean seedbed will allow planting when weather is