INTRODUCTION

The University of Arkansas System Division of Agriculture has been conducting the Cotton Research Verification Program (CRVP) since 1980. This is an interdisciplinary effort in which recommended Best Management Practices and production technologies are applied in a timely manner to a specific farm field. Since the inception of the CRVP in 1980, there have been 241 irrigated fields entered into the program. Producers are asked what they would like to improve in their current operation then a field is chosen that fits a standard model of the producers operation and requires the necessary recommendations to improve the farm.

All of the recommendations made to the producers in the program are based on proven research by University of Arkansas System Division of Agriculture researchers in their respective disciplines. The producer agrees to apply the necessary recommendations in a timely manner.

BACKGROUND INFORMATION

There were seven fields in the 2011 Cotton Research Verification Program. Locations included: Clay, Craighead, Jefferson, Lee, Lincoln, Mississippi, and Phillips counties. All of the fields were furrow irrigated. Every week the producer, the agent, and the verification coordinator met, scouted the field, and discussed the recommendations. The average field size was 51 acres and the average yield was 988 lb/acre. This was 53 lb/acre higher than the projected state yield of 935 lb/acre.

RESULTS AND DISCUSSION

The Clay County field was entered for the second year of the verification program. This field’s producer wanted to work specifically on irrigation and in-
secticide terminations. In order to accomplish this, the producer was taught the node-above-white-flower technique for measuring maturity. Heat units were calculated and termination intervals were explained to the producer. The producer was satisfied with the inputs that he saved by not over spraying. Overall the field produced 1,347 lb/acre.

The Craighead County field is in the first year of the verification program. The producer had a desire to improve his irrigation management practices to achieve high yields and lower costs. The producer was introduced to the PHAUCET program for irrigation management. He was very pleased with the way that the field watered evenly and he was able to reduce the amount of time he had to pump in order to water the whole field. He estimated that he saved enough time to equal one irrigation. The field yielded 1248 lb/acre.

The producer of the Jefferson County Verification was in incorporating the University of Arkansas Cooperative Extension Service recommendations into his farming operation. Each week the producer listened to the recommendations and applied them in a timely manner. The field yielded 915 lb/acre. The producer stated that this was the highest yield on his farm this year.

The Lee County field incorporated a new concept of cotton management and production with double crop cotton following wheat scenario. The key to making this field work economically was careful input management. In this scenario, herbicide inputs costs were reduced due to the cover that was provided by the wheat stubble. Due to the later planting date, a lower yield was expected. However due to the lower amount of inputs and the higher price received for the crop, yield was not as big a factor. The field yielded 697 lb/acre.

The Lincoln County field was in the second year of the verification program. The producer wanted to compare his current management practices to the cotton production recommendations of the University of Arkansas Cooperative Extension Service. Due to high root-knot nematode levels one of the main recommendations was to plant nematode tolerant variety. The field looked very good toward the end of the season. However, wet weather in the early fall introduced boll rot into the field reducing the yield. The field produced 935 lb lint/acre. The producer did state that this yield was consistent with the yields in that area this year.

The Mississippi County field was the third field to be in its second year of the program this year. The producer wanted to work on glyphosate pigweed management. Weeds were managed by using a combination of residual and contact herbicides under row hoods as well as contact and residual herbicides over the row. Hand weeding was utilized after lay-by to remove the few escapes. The field was clean and the cotton looked good going into the month of September. It yielded well with an average yield of 1,248 lint lb/acre.

The Phillips County cotton verification field was a unique test. The field was planted in a new conventional variety that had previously been released by the University of Arkansas called UA48. The producer wanted to try this variety to determine if conventional varieties would work on his farm. Unfortunately glyphosate drift reduced the yield and proved that variety placement was cru-
cial when using a conventional variety in an area dominated by RoundUp Ready crops. The field yielded 543 lb lint/acre. The producer stated he was interested in the Cooperative Extension Service recommendations that were made and he would like to continue the program next year with a different variety.

**PRACTICAL APPLICATION**

The cotton verification program provides the only real-world data and information on cotton production profitability based on non-biased extension recommendations. There are many other sources of information for cotton management available but this program is the only one that provides non-biased university based research data to backup management decisions. The program has been very successful over the last 30 years and will remain a constant source for questions and recommendations for cotton producers in the state of Arkansas.