Scientists Looking To Lower Input Costs For Cotton

Nitrogen Rates Examined

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The Louisiana Cotton Support Committee, with funding from Cotton Incorporated, began looking into ways to lower input cost for cotton production in 2010. Dr. Don Boquet, LSU AgCenter, spoke about the program.

"We developed a statewide program with other scientists and other research stations. Dr. Rogers Leonard, Dr. Brooks Blanche, Dr. Bobby Golden, Dr. Daniel Stephenson and economist Dr. Kent Paxton are working together looking at the planting seeding rates. We know that cotton across the board has a large range of plant density available to get maximum yield. It can be very low density, 20,000 per acre up to 50,000 and you probably wouldn't see any difference."

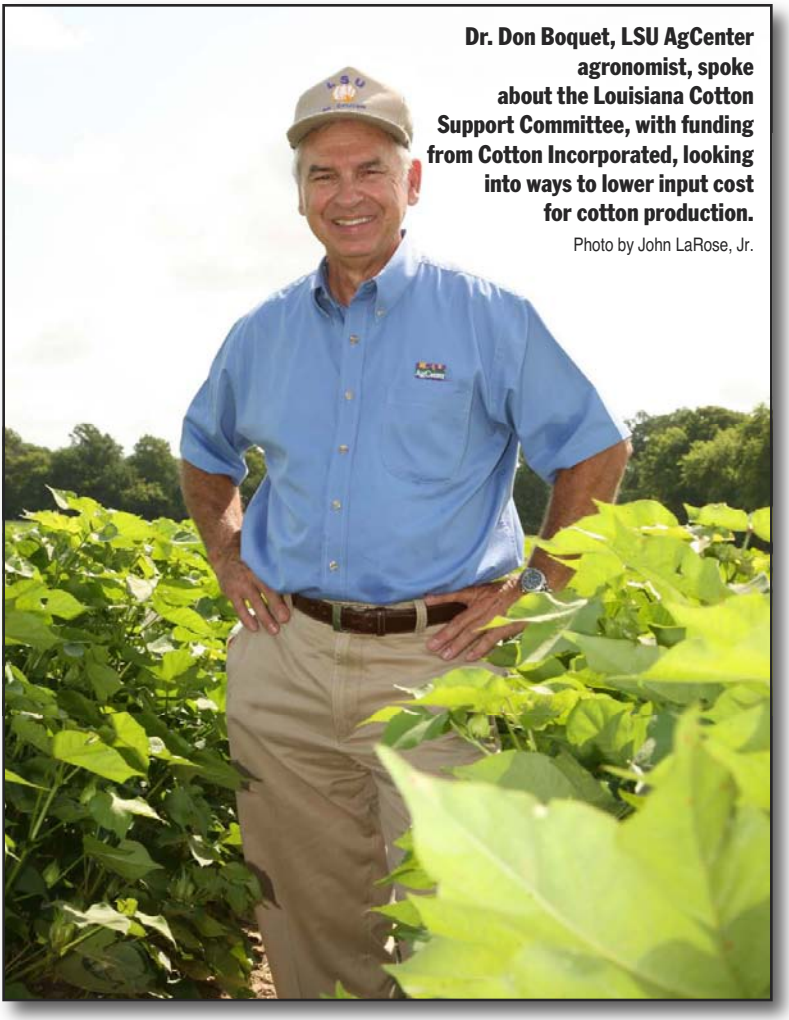
Boquet and his team of scientists combined plant densities with different nitrogen rates. "Nitrogen rates, especially when the crop has water, affects other inputs down the line. With an effective nitrogen rate, even an optimum nitrogen rate, you will have more regulators. Probably more attractiveness of the crop to insects, more defoliant applied later on which does reduce harvest efficiency when the crops are large rather than medium size and small."

Boquet also looked backed at conventional cotton production, before Roundup Ready varieties, in conjunction with nitrogen rates. "After just one year, the data suggests, that 20,000 plants per acre produces as high a yield as a higher population. There is no response to increasing the population of 20,000. It was not unexpected and also not unexpected was that at low nitrogen rates, 30 to 40 pounds, maximum yields were produced at most locations."

Cotton has an efficient root system. "It is a perennial, so its root system grows for a long period of time. It is very deep and very efficient at picking up nitrogen, even small quantities throughout the soil depth. When you go into a field especially in the first year of a research project, there is enough residual nitrogen to make the crop," said Boquet.

Information is limited on conventional versus transgenic. "In 2010 we did have a slightly higher net return on conventional cotton than we did on the transgenic cotton. This also indicates we can still grow the conventional and get good yields."

In 2011 the group had more extensive testing than in 2010. "Drought really hurt us in 2010 at the Northeast Research Station. All the stations had drought. Our yields ran as high as they could possibly be, the exception was our irrigated trial at Macon Ridge."



Dr. Don Boquet, LSU AgCenter agronomist, spoke about the Louisiana Cotton Support Committee, with funding from Cotton Incorporated, looking into ways to lower input cost for cotton production.

Photo by John LaRose, Jr.

"I think we can grow conventional varieties. It means using a pre-plant incorporated herbicide, using a pre-emerge herbicide, a post herbicide, however there are some over the top materials that work quite well, but they are expensive," said Boquet. Δ

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