



Ensuring Profitability of Alabama Row Crop Farmers

Impact Statement

The Problem/Issue:

Row crop production has been in a rapid state of flux for the past 10 years. Farmers in the western Tennessee Valley began to change their crop diversity in 2003. In one county, as much as 10,000 acres were set to be converted from cotton and soybean production to corn production. Innovations such as genetically engineered varieties and cultivars; environmentally friendly pesticides and application methods; remote sensing and precision farming techniques; and computerized economic programs have helped producers increase their efficiency while maintaining or decreasing costs.

What's Been Done:

Extension meets annually with the major commodity groups to discuss research priority areas. For the past three years, cotton and soybean producers have listed variety and cultivar evaluation as one of their top five priority areas. Producer representatives from all commodity groups have asked Extension to place applied research demonstrations on-farm where it is practical.

Extension programming efforts for producers included county production meetings, field days, county agent trainings, local school demonstrations, regional trainings and presentations at national conferences. In 2003, agents and specialists participated in 86 crop production meetings with over 10,000 participant contacts. More than 30 row crop demonstrations and 50 field tours were conducted under this program in weed control, cotton defoliation, variety and cultivar evaluation, precision farming, conservation tillage techniques, nematode and other pest management and other areas. Extension participated in local adult and youth educational efforts with about 60 exhibits at county fairs and local school demonstrations.

Four multistate regional conferences that included speakers from Georgia, Florida and Alabama were held in the southern areas of the state. The second annual Southwest Alabama Farm Day drew over 170 attendees from southern Alabama, the Florida panhandle and southeastern Mississippi. The fourth annual Wiregrass Cotton Expo drew over 145 participants from southwest Georgia, the Florida panhandle and southern Alabama. Almost 300 participants saw precision farming techniques demonstrated at the Tennessee Valley John Deere Field Day.

Four multistate agent trainings were held for cotton (2) and precision farming (2). Cotton production trainings were held at two locations in the state: Tennessee Valley for Alabama and southern Tennessee county agents

(26 participants) and Greenville for Alabama and Florida county agents (22 participants). Precision farming trainings were held at Clemson (25 participants) and the University of Georgia (25 participants).

Why We Care:

Falling crop prices, increased pest pressures and weather extremes have made profitability in row crop production an extreme challenge. Results from on-farm demonstrations have had a great impact on local decisions and profitability as is evidenced in the following examples. Results from a 2003 soybean demonstration found that a producer choosing the correct soybean cultivar could have increased net returns by \$105 per acre, resulting in a \$105,000 increase in income for a 1,000 acre farm. Results from a demonstration in Shelby County found that choosing a poorly adapted cotton variety would have reduced lint yield by 200 lbs/acre at a cost of \$140 per acre to the producer. Based on Extension recommendations during the early season floods in 2003, a Talladega County corn producer was able to save the cost of fertilizer (\$30/acre) on 700 acres for a total savings of \$21,000. Results from a cotton defoliation demonstration resulted in an average savings for Henry County producers of \$5/acre on 10,000 acres (total projected savings of \$50,000). An aphid disease monitoring program across the state resulted in no insecticide application on 100,000 acres of cotton at a savings of \$8.00 per acre (total savings of \$800,000).

Precision farming demonstrations and trainings in north Alabama have resulted in implementation of various techniques to improve yields and efficiency. For example, yield monitors aid producers by indicating where low-yielding fields are in need of adjustment. In a north Alabama total farm field demonstration; the producer saved more than 13 percent on their nitrogen input to field corn. A grain producer in north Alabama increased labor and equipment efficiency by enhancing the timing of their in-field trucking operations for hauling harvested grain.

While direct benefits to our clientele are more obvious, indirect benefits are also evident. Variety and cultivar demonstrations and tours are generally located in areas not well-served by the experiment station system. Thus, Extension is providing valuable information to local producers that would not otherwise be available.

Comprehensive, multistate training programs enable specialists and agents to make more accurate recommendations and ensure that Extension remains relevant on a local, state, regional and national basis and remains proactive in solving the problems of our clientele.