**The Problem/Issue:**
Farmers are facing increased production costs, increased world competition and decreased labor availability. To maintain competitiveness, producers are searching for ways to become more cost and time efficient. The integration of geospatial applications combined with yield monitoring and other innovative technologies have created new opportunities that allow growers to more efficiently utilize irrigation, tillage, pesticides and fertilizers.

**What’s Been Done:**
The Alabama Cooperative Extension System’s precision agriculture program is evaluating these new technologies for Southern crops. Extension is determining which precision agriculture technologies will increase the economic viability of Alabama producers through more efficient use of equipment, fertilizers and pesticides.

Extension conducted a survey of farmers and agribusinesses to evaluate adoption of precision agriculture and assess user needs. A number of informational meetings were held across the state to update farmers and others on the latest advances in precision agriculture. Approximately 200 students participated in sessions about GPS, use of handheld GPS units and demonstrations of auto-pilot guidance system at Auburn University’s College of Agriculture Career Day.

Extension conducted a number of on-farm demonstrations including variable rate nitrogen on corn and cotton, yield monitors, guidance systems, zone vs. grid soil sampling, development of management zones and electrical conductivity.

Alabama Extension is considered a leader in the region for precision agriculture and this leadership role is evident when Alabama Extension professionals are asked to train agents and farmers in other states. Precision farming training sessions were held at Clemson (25 participants) and the University of Georgia (25 participants).
**Why We Care:**

Producer responses from surveys indicate that they are looking to Extension for information about precision agriculture technologies and how to adopt these technologies profitably on their farms. Producers are looking for unbiased, research-based information, and Extension is the source for that type of information. Extension is assisting farmers as they adopt methods that will increase their productivity.

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 was able to save over 13 percent on their nitrogen input to field corn. A grain producer in north Alabama has increased labor and equipment efficiency by enhancing the timing of their in-field trucking operations for hauling harvested grain.