

Alabama Precision Agriculture Team

Yield Monitoring and Mapping

“Report Card for Farm Operations”



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Recent Precision Agr. Survey

- **Over 85%** of Precision Ag Practitioners indicated their operation has been more profitable.
 - Average input savings per acre
 - \$19/ac for corn
 - \$18.50/ac for soybeans
 - Up to \$39/ac for cotton
 - **Fertilizer savings \$4 to \$13 per acre** depending on crop.
- Top benefits
 - Ability to apply chemicals and fertilizer where needed
 - Greater profitability due to lower input costs
 - Identification of poor producing areas of their fields.

Results courtesy of Precision Ag Institute

Profitability

Growers looking for ideas for cutting costs while increasing yields



Yield Monitors

- You want to understand the potential benefits of start-of-the-art technologies
 - Need more information!
 - Decide whether PA will work for your operation?
- Harvest is when a precision program can shine
 - **Yield Monitor**
 - Providing **geo-referenced** yield data for fields
- **Report card** for your management program

Yield Monitoring Systems

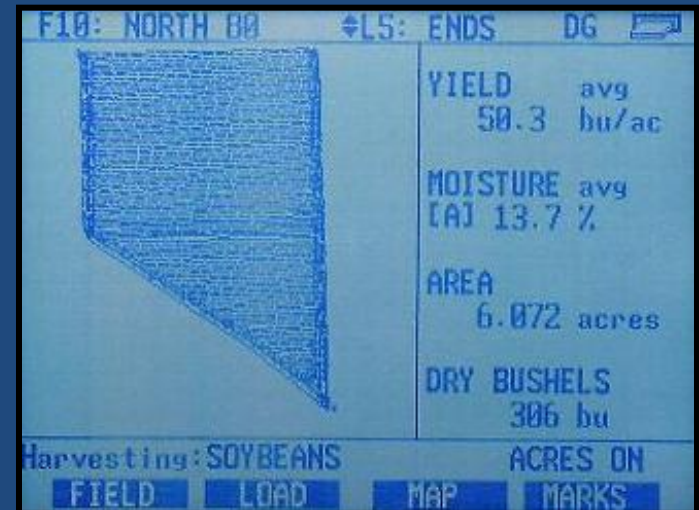
- Grain combines
- Cotton pickers
- Peanut combines (R&D)



User Interface



Screen Readout



Benefits of Yield Monitors

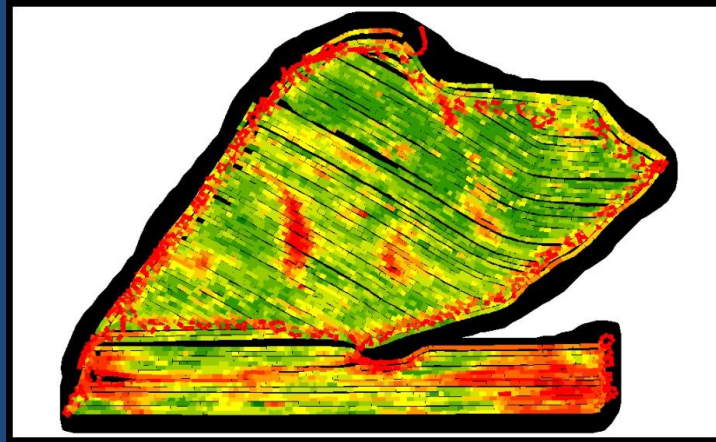
- On-the-go yield comparisons
- Make storage decisions based on moisture readings in the field.
- Load trucks/wagons accurately
- In-depth performance analysis
 - High and low yielding areas
 - Magnitude of yield differences across fields

Results

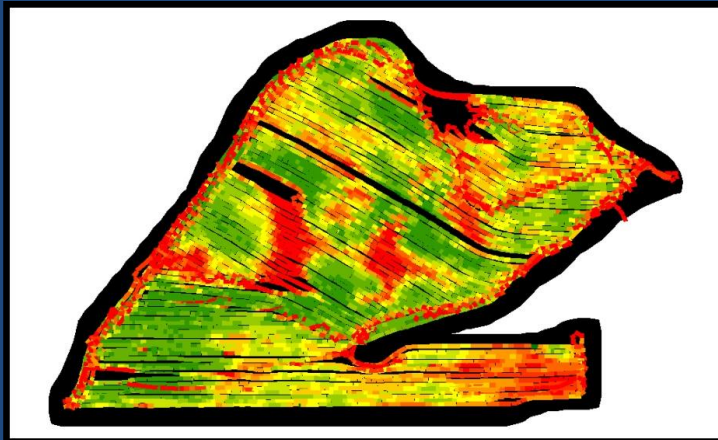
- Rental agreement negotiations
 - Estimate yield potential for potential acres
 - Improved relationship with land owner (pictures!)
- Identify possible management changes
 - Hybrids/Variety selection
 - Drainage issues
 - Fertility recommendations
- Support site-specific management
 - Site-specific (zone) management
 - EQIP and other programs

Revealing Suspected Variability

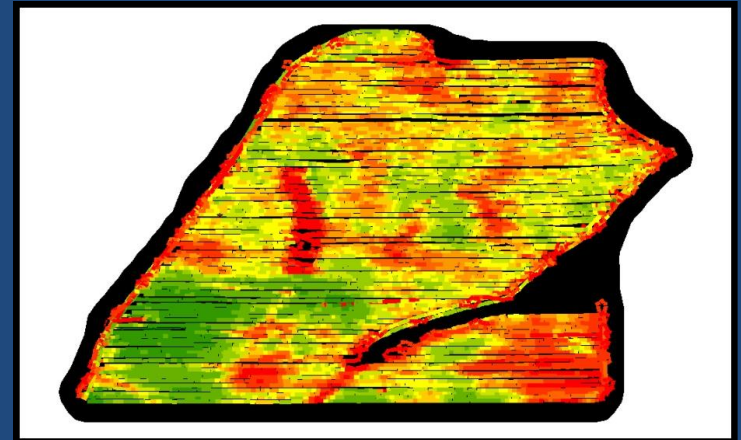
Wheat Yield Map



Soybean Yield Map

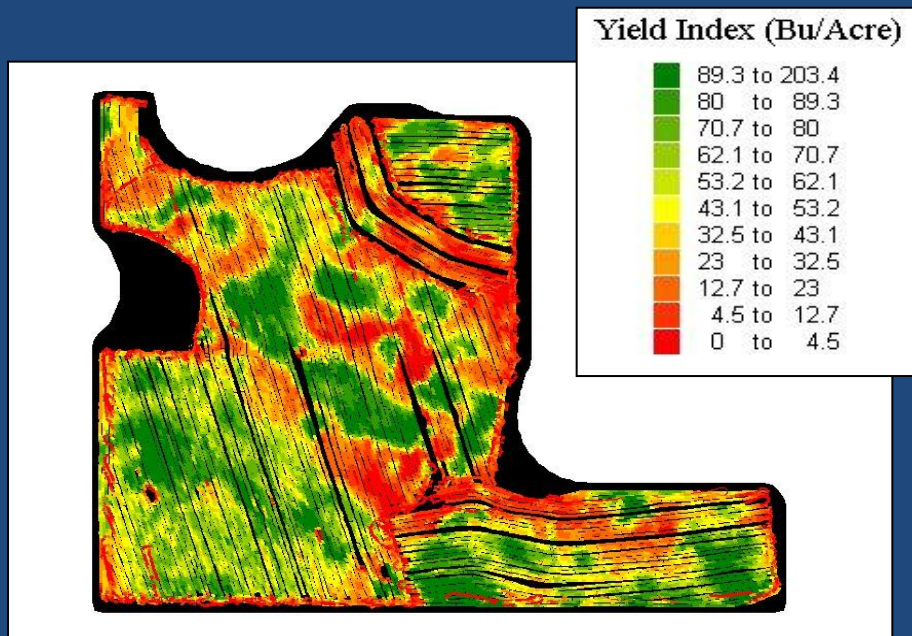


Corn Yield Map

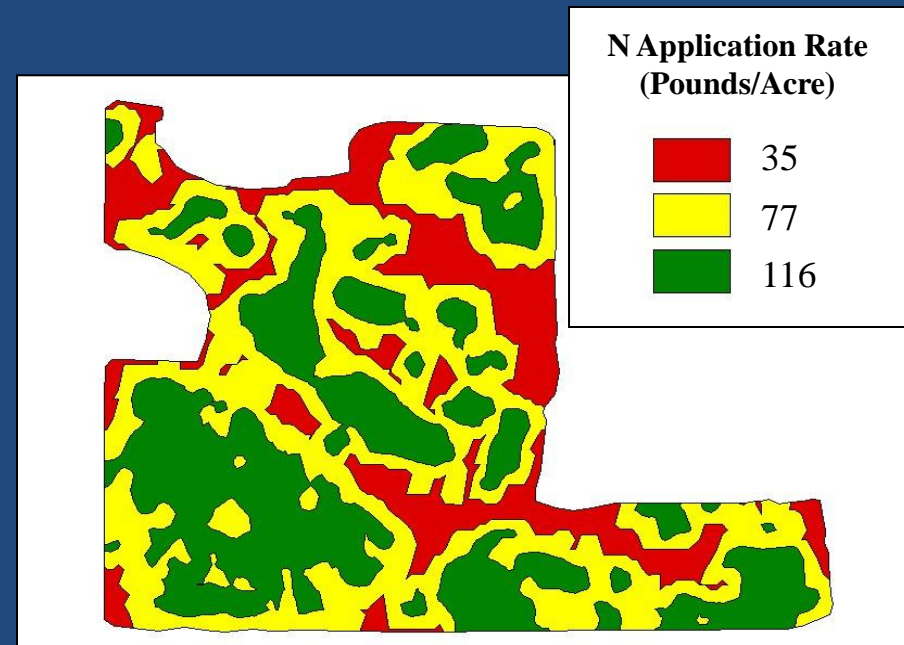


Manage & Record Application Rates

Corn Yield Map

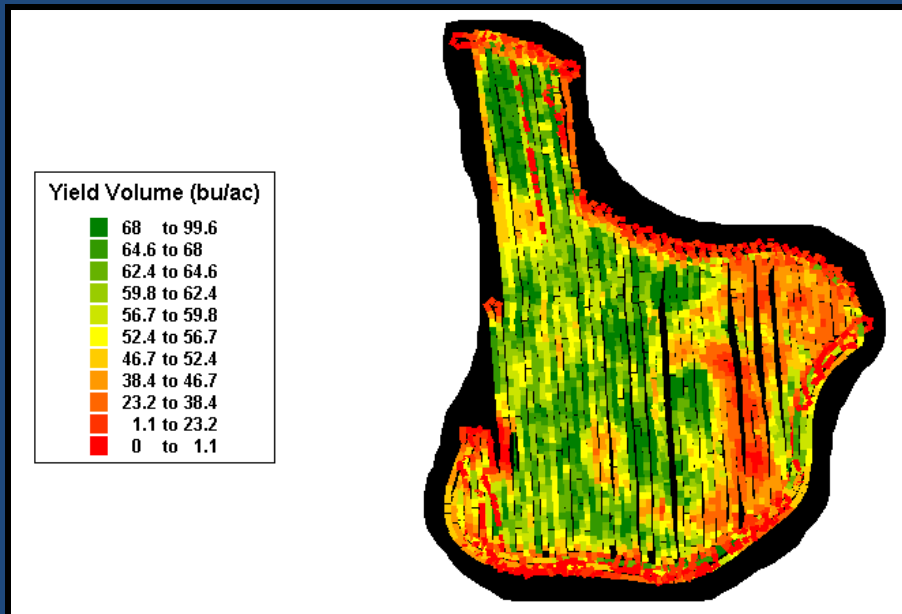


Nitrogen Application Map

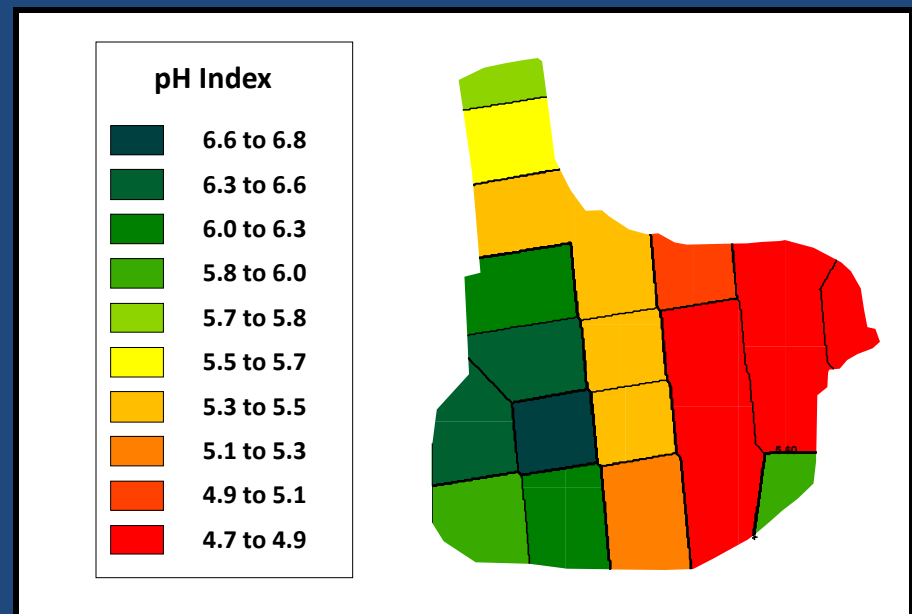


Site-Specific Management

Wheat Yield (Prior to liming)

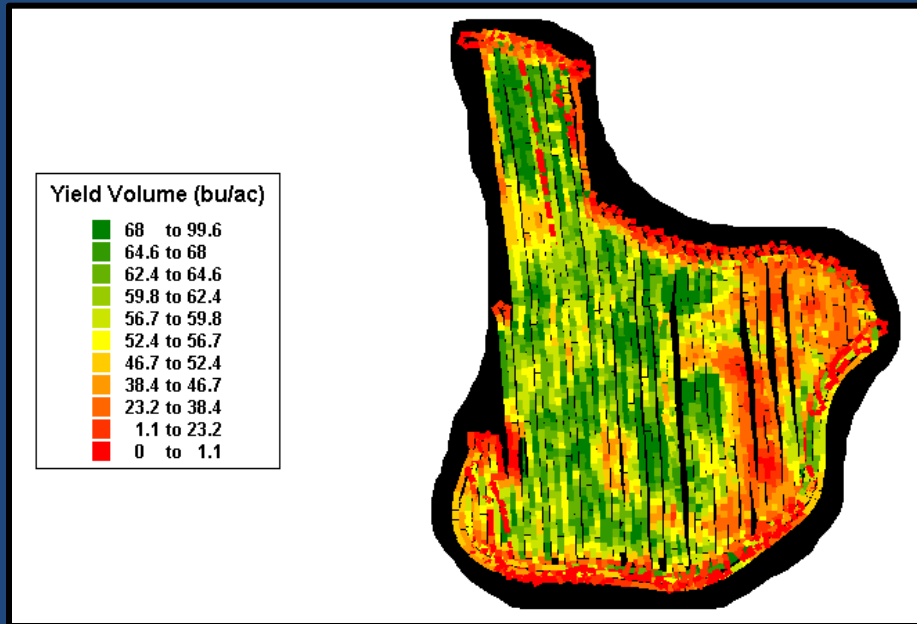


pH Map

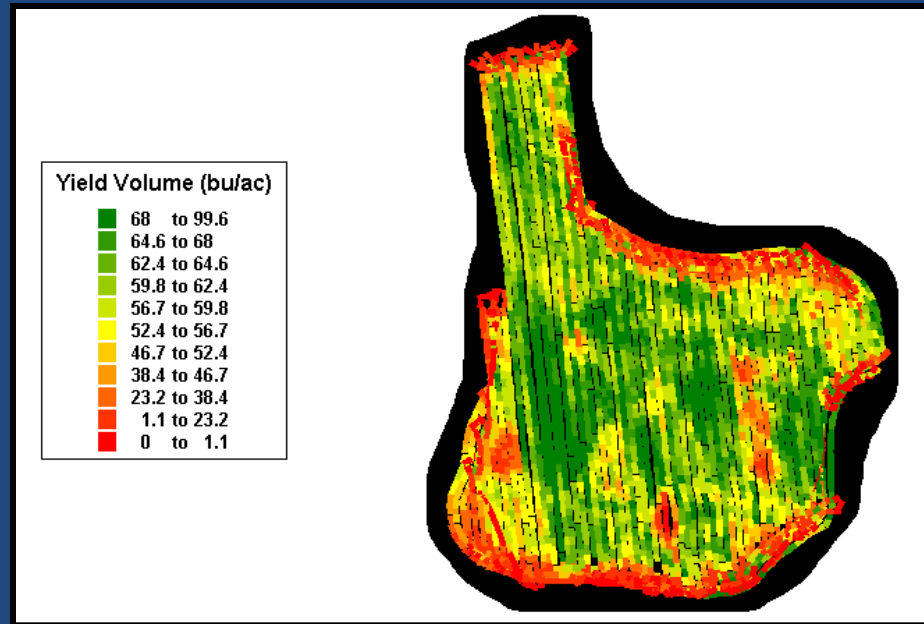


Site-Specific Management

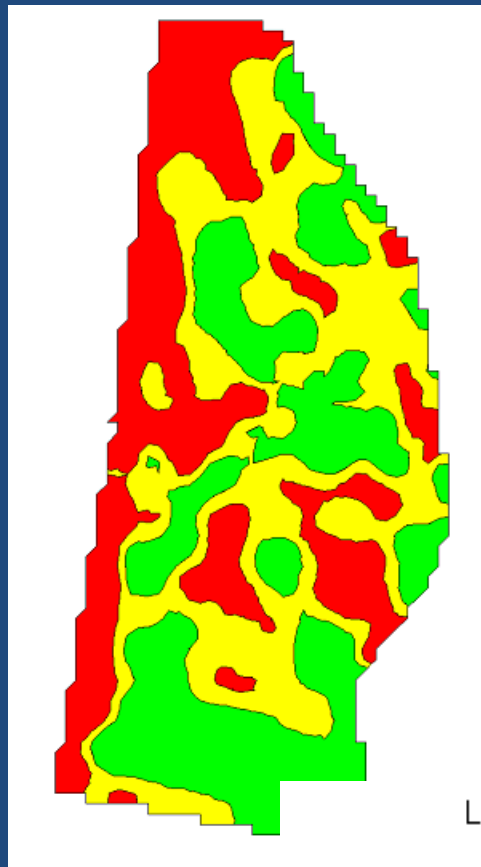
Wheat Yield (Prior to liming)



Wheat Yield (After liming)

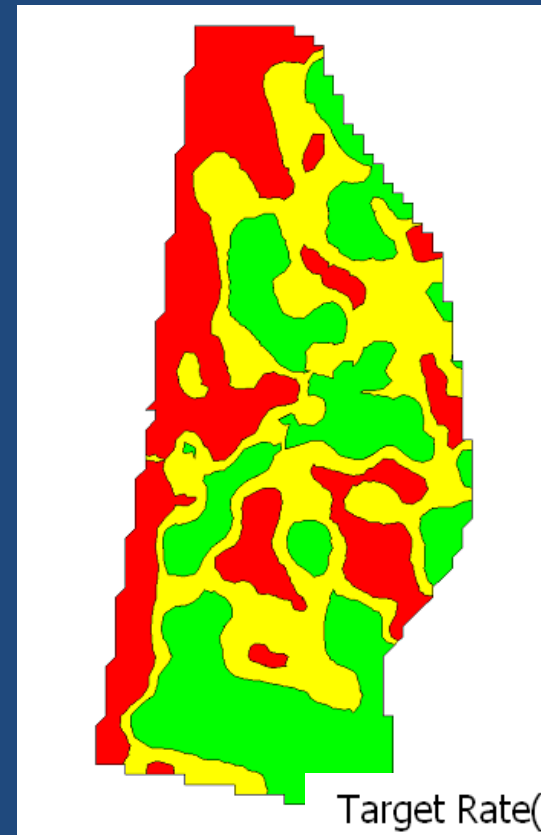


Use yield data to target seeding rates



Lint Mass Yield
(lb/ac)

Green	985.61 - 1,953.00	(25.85 ac)
Yellow	767.00 - 985.61	(28.05 ac)
Red	43.35 - 767.00	(23.11 ac)

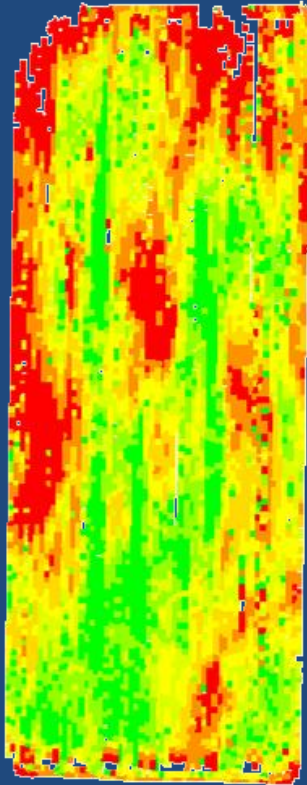


Target Rate(Count)
(sds/ac)

Green	30,000	(25.85 ac)
Yellow	28,000	(28.04 ac)
Red	26,500	(23.11 ac)

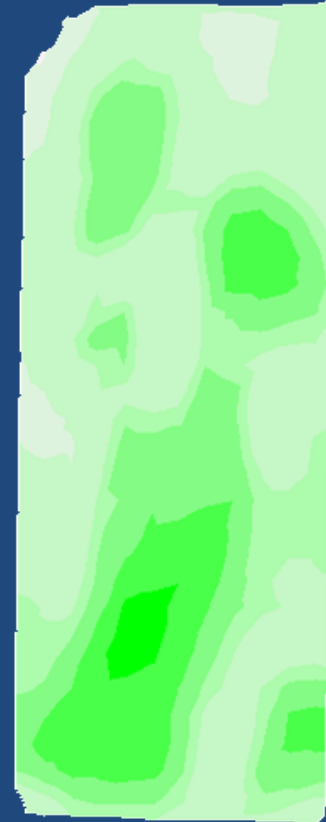
Profit Maps

*Yield
Map*



Address
field variability
so that your
PROFIT map reflects
a positive return!

*PROFIT
MAP!*



Some AgGIS software packages provide the ability to quickly produce profit maps.

PA Technology has improved profitability and environmental stewardship.



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