Precision Agriculture

Virtual Alabama User Forum
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Our organization

• To deliver research-based educational programming that will improve the economic well-being and quality of life of Alabama citizens

• 13 Program Priority Teams
  – Agriculture and Natural Resources
  – Family and Consumer Sciences
  – 4-H
  – Urban and Non-traditional

• Office in every county in the state
  – Regional Extension Centers
Tennessee Valley Research & Extension Center
Precision Agriculture Team

• Assist farmers & agribusiness with the adoption of Geospatial Technologies: GPS, GIS and RS.

• Current initiatives:
  – Use of CORS in agriculture
  – Variable-rate technologies
  – Data analysis and management

• www.alabamaprecisionagonline.com
Precision Agriculture Team
Working with non-GIS people

- Limitations
  - ArcGIS complex, learning curve
  - Don’t recognize all benefits of technology
  - Financial limitations for GPS equipment purchases
  - Wanted one program to support for statewide staff
Working with non-GIS people

• What Extension needed was a platform:
  – easily accessible
  – easy to use
  – low-cost
  – Interface with handheld GPS

• Google Earth EC was the solution
Handheld GPS
Acreage Calculations

- Area of pond critical for treatment
- Routinely see misconceptions about acreage
Hunting Preserve Management

- Great teaching tool!
- Assist with navigation, land management
Pasture Management

• Define areas for paddocks to be used in rotational grazing
Premise Identification

- Livestock producers need location information
- Tracing your food back to source
Watershed Estimation
Forest Management

• http://shrmc.ggy.uga.edu/maps/screen.html
Forest Management

- Wildlife
- Water
- Treasure Forest
Gypsy Moth Monitoring
Fire Ant Management

- Fire ants issue in public areas
  - Schools
  - Parks
  - Ballfields
  - Cemetery
Fire Ant Management
Monitoring Problem Weeds

- Invasive Weeds
  - Monitor following treatment

- Resistant Weeds
  - Identify infested areas to prevent further spread
Nutrient Management Plans

• For manure applications
• Setbacks apply for bodies of water, churches, roads, schools, etc.
• Recordkeeping
Nutrient Management Plans

- Considerations
  - School
  - Church
  - Water
  - Subdivision
Geocaching

- GPS
- Navigation
- GIS
Closing Comments

- Huntsville is a high-tech city, and the farmers are also using technology!

Visit our website
www.alabamaprecisionagonline.com
Closing Comments

• Google Earth EC allows the Alabama Cooperative Extension System to rapidly and efficiently integrate geospatial technologies

• Thanks to Chris Johnson!