Forest Inventory and Analysis Program: Updates for Georgia’s Forest Land – 2013 FIA Data

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FIA facts and history

- The Forest Inventory and Analysis (FIA) Program is a cooperative program between the U.S. Forest Service and the states to provide estimates of the condition of the forest and forest trend data.

- A forest inventory was mandated as necessary by the U.S. Congress in the 1930’s in order to provide status updates of the United States’ forest resources.

- The data can:
  - Indicate if forest resources are being managed sustainably.
  - Indicate trends such as gains or losses of forest acreage, the species composition of our forest, the age/quantity/quality of the timber resources and the health of our forests.

- Data are collected on research plots across the state on public and private land.

- Landowners have the opportunity to deny access to their property at any time.
FIA in Georgia

- Georgia assumed data collection responsibilities from U.S. Forest Service in 1998
- All data are given back to the USFS for compilation/analysis
- FIA is a 75% federally funded grant with 25% of funds matched by states with 5 year cycles
- We currently have 10 foresters collecting FIA data across Georgia
- All foresters on the FIA team in Georgia have degrees in forestry and are tested and certified prior to collecting data in order to maintain data integrity
- All data, once compiled, is made available to the public at www.fia.fs.fed.us/tools-data and through publications such as Forest Factsheets on the Georgia Forestry Commission website
- No individual landowner information from the FIA Plots is made public in order to protect privacy
Why is a Forest Inventory Needed?

• Without a forest inventory there is no scientific source for the trends of our forests – provides consistent metrics over time
• Without a forest inventory, forestry decisions in our agency, the state government and the federal government are made based on feelings and popular opinion instead of numbers
• Our numbers give forest industry the necessary information to decide to locate new wood using facilities here in Georgia – new mills = new jobs putting Georgians back to work
• FIA gives us the opportunity to correct undesirable forest trends before it is too late
• FIA data are based on ground observations and provide a comparison to other data sources, e.g. satellite spectrum data.
Each plot on which data are collected is made up of four 24’ radius subplots. Tree measurements are collected on trees 5 inches and greater within this radius. Information on smaller trees is collected within the microplot.
One plot is placed randomly within each ~6000 acre hex. Each plot is permanent until access to the property is denied. Each plot is remeasured about once every 5 years.
FIA Data Collected on Each Plot

Measurements include:

• Species
• Diameter
• Height
• Tree Class – is it straight enough?
• Log Grade
• Crown Position
• Live Crown Ratio
• Location of each tree from plot center using azimuth and distance
• Invasive exotic plant species, slope/aspect, forest type, stand age, disturbances/treatments, etc.
Timberland Acreage Through Time in Georgia

Survey Year


Million Acres

21.4 25.8 23.6 24.5 24.4 24.3 24.2 24.2

Source: US Forest Service 2013 Data and The Georgia Forestry Commission
Top Ten U.S. States in Total Timberland Acreage

Georgia is #1 in timberland acreage and privately owned timberland acreage in the U. S. While some western states have high timberland acreage, much of it is public land and unavailable for most forest products.

Source: US Forest Service FIA Data 2013 and The Georgia Forestry Commission
Timberland Acreage by Forest Type Group

Source: US Forest Service FIA Data 2013 and The Georgia Forestry Commission
Georgia Forest Land Acreage by Forest Type Group

- Pine Plantation: 6.9 Million Ac. (29%)
- Natural Pine: 4.1 Million Ac. (17%)
- Oak-Pine Mix: 2.7 Million Ac. (11%)
- Bottomland Hardwood: 3.7 Million Ac. (15%)
- Upland Hardwood: 6.2 Million Ac. (26%)
- Other: 1%

Note: Percentages do not equal 100 due to rounding

Source: US Forest Service FIA Data 2013 and The Georgia Forestry Commission
Ownership Trend in Georgia, 1953 to 2012

Source: US Forest Service FIA Data 2013 and The Georgia Forestry Commission
Pine Timberland Acreage by Age Class and Survey Period

Source: US Forest Service FIA Data 2013 and The Georgia Forestry Commission
Planted Pine Acreage in the 0-5 Year Age Class by Survey Year

Source: US Forest Service FIA Data 2013 and The Georgia Forestry Commission
Softwood Volume per Acre by Survey Year

Softwood Cubic Foot Volume per Acre

Survey Year

Source: US Forest Service FIA Data 2013 and The Georgia Forestry Commission
Volume of Softwood Trees by Diameter Class and Survey Period

Diameter Class

6"  8"  10"  12"  14"  16"  18"  20"

Million Cubic Feet

Source: US Forest Service FIA Data 2013 and The Georgia Forestry Commission
Volume of Hardwood Trees by Diameter Class and Survey Period

Source: US Forest Service FIA Data 2013 and The Georgia Forestry Commission
Net Growth versus Removals (Harvests) For Softwood by Survey Period

Net Growth Exceeds Removals by 34%

Source: US Forest Service FIA Data 2013 and The Georgia Forestry Commission
Net Growth versus Removals (Harvests) For Hardwood by Survey Period

- **Source**: US Forest Service FIA Data 2013 and The Georgia Forestry Commission

Net Growth Exceeds Removals by 91%
Net Growth versus Removals for All Tree Species Combined

Net Growth Exceeds Removals by 45%

Source: US Forest Service FIA Data 2013 and The Georgia Forestry Commission
Volume by Forest Type Group and Survey Period

Source: Forest Inventory and Analysis program, US Forest Service, 2012 Data
Our forests are being managed sustainably
Benefits all Georgians with a continuous flow of goods and services of traditional forest products
Also benefits society with clean air, clean water, wildlife habitat, soil conservation, recreation and aesthetic benefits
Remember that 2 out of 3 raindrops in Georgia fall on forestland
Planting pines now for the future is what Georgia needs to remain sustainable

www.gatrees.org