

The Inventory

Issue 10,
June 2008

An Update Concerning the SRS FIA Program

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SRS FIA Informational Update (June 2008)

Data quality seems to be on everyone's mind lately. Not only to external partners, customers, and clients that use Forest Inventory and Analysis (FIA) data but also internally to FIA. Why, because more users of FIA data are using the information for policy, management, and economic decisions.

FIA has always and will continue to have a strong Quality Assurance (QA) program. The FIA QA program encompasses a series of processes, standard operating procedures, quality control (QC) tools, and analyses to track and document data quality for field operations, data processing, and reporting. In terms of field data collection, the goal of FIA is a minimum of 5% of the field plots to be checked by a FIA QA crew. In the latest published National FIA Business report (FY2006), almost 8% of the field plots were checked by a FIA QA crew. The other important aspects of the field QA program are: standardized field data collection procedures, field crew training, field crew certification, and range/logic checks built into the data recorder program.

QA is not only a field-related activity but also relates to data processing and reporting. Within the office, data checks are done on the processed data to determine items such as species presence within a State, comparison of data from previous time period, trend analyses, and documentation of data processing procedures. For analysis and reporting, QA includes a peer-review of all documents, additional trend analyses, and reviews of data across State lines.

In the future, we will be looking to document results of field crew QC checks, analyses of variables compared between QA and field crews, and use of Geographic Information Systems (GIS) analysis tools to examine spatial consistency within and between States. One other aspect of QA that is happening, is to move the QA checks as close to the beginning of the data collection process as possible. Ideally by moving most of these QA checks to the field allows for the best opportunity to correct and improve data quality. The use of portable electronic data recorders has made this possible. In addition, integrated portable data recorders and GPS systems eliminates the data entry errors of recording plot coordinates.

Regardless of the QA processes that are instituted, FIA needs to be transparent on our data quality and this level of documentation needs to be made available to data users. This allows for the user to determine the appropriateness of their data analyses for the interpretation and significance of their results.

As always, if you have any questions regarding FIA, please submit those questions to Charlene Walker (cwalker@fs.fed.us) and we will answer your questions in a future issue of *The Inventory*. Thank you for your interest in FIA and please let us know how we may serve you in the future.

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9th Annual FIA Symposium Scheduled

The National FIA program has announced the 2008 FIA Symposium. The symposium will emphasize innovative uses of FIA data that shed new light on contemporary issues, such as carbon, climate change, fire, bioenergy/biomass, forest health, and other topics. Plenary and breakout sessions from a variety of disciplines will be presented.

Symposium Goals

- Present ways that FIA has aided in policy and management decisions,
- Provide a forum for linking issue-focused analyses with techniques development,
- Exchange of science and technology between FIA regions,
- Showcase collaborative ventures and foster continued work with FIA partners,
- Display state-of-the-art science and tools, and
- Communicate utility of FIA data and analyses to the broader user community

Location and Format

The conference will be held October 21–23, 2008 in Park City, UT. The FIA Symposium is being held at the Grand Summit Hotel, 4000 The Canyons Resort Drive, Park City, UT. A block of rooms is held under *FIA Symposium* and reservations can be made by calling 888-226-9667 for a rate of \$80 U.S. The block of rooms will be held until September 5th. Reservations must be cancelled 7 days prior to arrival to avoid forfeiture of one night's lodging.

For updated information concerning arrangements and other details on the 9th FIA Symposium, visit the following website: <http://www.fia.fs.fed.us/symposium/>.

Copies of the proceedings of the 7th FIA Symposium (*Proceedings of the Seventh Annual Forest Inventory and Analysis Symposium*, USDA Forest Service Gen. Tech. Rep. WO-77) which was held in Portland, ME on October 3–6, 2005 are available by contacting Joyce Carmack at 865-862-2000 or jcarmack@fs.fed.us.

Status of Current Field Inventories

State	Cycle start date	Subcycle start date	Cycle and sub-cycle of current inventory	Percent of current subcycle collection completed
Alabama	2005	Sept-07	9-6	64
Arkansas	2005	Oct-07	9-5	60
Florida	2001	Mar-07	8-2	82
Georgia	2004	Aug-07	9-5	80
Kentucky	2005	Jun-07	6-4	66
Louisiana	2000	Nov-04	3-3	100
Mississippi	2005	Nov-05	8-6	100
North Carolina	2003	May-07	8-4	75
Oklahoma	2007	Oct-07	7-6	73
Puerto Rico	2006	Apr-07	4-2	100
South Carolina	2006	Jan-08	10-5	35
Tennessee	2005	Feb-08	8-5	24
Texas (east)	2003	Jun-07	8-5	87
Texas (west)	2004	Feb-08	51-5	13
U.S. Virgin Islands	2004	Jul-04	1	100
Virginia	2007	Aug-07	9-5	88

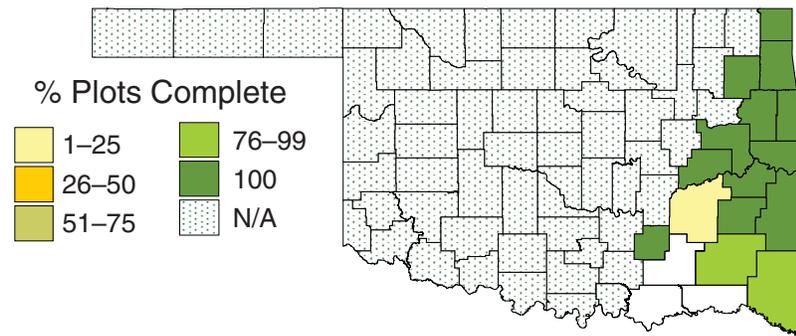
Information compiled May 22, 2008.

For more information, contact Dale Trenda at dtrenda@fs.fed.us or 865-862-2039.

Oklahoma Inventory Over 70% Complete!

As of mid-May the seventh inventory of eastern Oklahoma is 73% complete. The southern unit has been a challenge due to weather events during this last quarter from spring snow to torrential rains to the ever present threat of tornadoes. The heavy rains have thwarted access

for the crews due to low water crossings in McCurtain and Pushmataha Counties and have forced many plots to be put on hold until drier conditions prevail. A summer completion date is still anticipated.



For more information, please contact Kathy Tillman at kmtillman@fs.fed.us or 936-569-7981, ext. 4002.

Kenneth Grayson working in McCurtain County, March 4, 2008. Picture taken by Keith Gustafson. Both Kenneth and Keith are federal FIA foresters.

***FY2008 Research
Publications
Published Since
March 2008***

- Bentley, James W.; Howell, Michael; Johnson, Tony G.** 2008. Arkansas's timber industry—an assessment of timber product output and use, 2005. Resour. Bull. SRS-132. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 31 p.
- Bentley, James W.; Howell, Michael; Johnson, Tony G.** 2008. Louisiana's timber industry—an assessment of timber product output and use, 2005. Resour. Bull. SRS-130. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 32 p.
- Bentley, James W.; Howell, Michael; Johnson, Tony G.** 2008. Mississippi's timber industry—an assessment of timber product output and use, 2005. Resour. Bull. SRS-131. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 32 p.
- Coulston, John; Randolph, KaDonna; Rose, Anita; Bechtold, William.** 2008. Geographic surveillance of plot-level forest health indicators. Forest Health Monitoring Workgroup Meeting, San Antonio, TX, Feb. 11-14, 2008 [Published Abstract].
- Johnson, Tony G.; Bentley, James W.; Howell, Michael.** 2008. Florida's timber industry—an assessment of timber product output and use, 2005. Resour. Bull. SRS-133. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 31 p.
- Rose, Anita K.** 2008. The status of oak and hickory regeneration in forests of Virginia. In: Jacobs, Douglass F.; Michler, Charles H., eds. Proceedings, 16th Central Hardwood Forest Conference; 2008 April 8-9; West Lafayette, IN. Gen. Tech. Rep. NRS-P-24. Newtown Square, PA: U.S. Department of Agriculture Forest Service, Northern Research Station: 70-79.
- Rosson, James F., Jr.** 2008. Current forest conditions of older stands of the mixed mesophytic forest region on the Appalachian plateaus province of eastern Kentucky. In: Jacobs, Douglass F.; Michler, Charles H., eds. Proceedings, 16th Central Hardwood Forest Conference; 2008 April 8-9; West Lafayette, IN. Gen. Tech. Rep. NRS-P-24. Newtown Square, PA: U.S. Department of Agriculture Forest Service, Northern Research Station: 213-222.
- Turner, Jeffery A.; Oswalt, Christopher M.; Chamberlain, James L. [and others].** 2008. Kentucky's forests, 2004. Resour. Bull. SRS-129. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 101 p.

***Current Status of
FIA Data Posted to
Mapmaker***

State	FIADB cycle	Survey	Periodic/annual	Date year
Alabama	9	9	A	2006
Arkansas	9	9	A	2006
Florida	8	8	A	2006
Georgia	9	9	A	2006
Kentucky	6	6	A	2006
Louisiana	7	7	A	2005
Mississippi	8	8	A/P	2006
North Carolina	8	8	A	2005
Oklahoma (east)	1	6	P	1993
South Carolina	9	9	A	2006
Tennessee	8	8	A	2006
Texas (east)	8	8	A	2006
Texas (west)	51	51	A	2006
Virginia	8	8	A	2006

For more information, contact Ali Conner at aconner@fs.fed.us or 865-862-2228.

Forest Inventory and Analysis and Forest Health Monitoring on a Unique Caribbean Natural Reserve; Mona Island, Puerto Rico

SRS FIA, Puerto Rico Department of Natural and Environmental Resources (DNER), University of Puerto Rico Center for Applied Tropical Ecology and Conservation, the International Institute of Tropical Forestry, and Northern Research Station FIA collaborated to establish forest inventory and forest health monitoring plots across Mona Island, PR.

The 55 km² island, administered as a natural reserve by the Puerto Rico DNER, rises sharply out of the Caribbean Sea between Puerto Rico and the Dominican Republic. The island's subtropical dry forest is critical habitat for the threatened Mona ground iguana, home to the endemic Mona coquí tree frog and the threatened, endemic Mona boa constrictor, as well as an endemic subspecies of the endangered yellow-shouldered blackbird. The forests on Mona

Island are also important wintering habitat for Neotropical migrants, several species of seabirds nest along its cliffs, and the beaches are critical habitat for leatherback, green and hawksbill sea turtles.

This work completes a 360 km long monitoring network that stretches across Puerto Rico and the U.S. Virgin Islands. These islands share similar climates and pre-European colonization plant communities while having vastly different land use histories. By gaining forest inventory, down woody materials, tree crown assessment, forest soils and vegetation diversity and structure data from this unique protected area, we increase our assessment capabilities in Caribbean subtropical dry forest and their responses to human-induced change and catastrophic disturbances such as hurricanes or droughts.



Mona Island rises sharply out of the Caribbean in the Mona passage between Puerto Rico and the Dominican Republic.

For additional information, contact Thomas Brandeis at 856-862-2030 or tbrandeis@fs.fed.us.

New Ownership Tool Available

A new ownership analysis tool was released this spring. Brett Butler of the Family Forest Research Center and lead for the National Woodland Ownership Survey (NWOS) announced a new, on-line data access tool called NWOS Table Maker. FIA's NWOS program launched this tool to give users the capability of generating custom tables from the 2002–2006 NWOS data. Analysts are enthusiastic about the ability to select their State(s) of interest, the variable(s) of interest, and stratify based on size of forest holdings, if desired. The new NWOS Table Maker allows summarization from more

than 50 variables. Key variables of interest to many analysts are landowners concerns, demographics, forest holding descriptors, future intentions, leasing, forest management practices, nontimber forest products, owner type, program participation, ownership objectives, and timber harvesting. Users can access this tool through the:

NWOS website www.fia.fs.fed.us/nwos/, FIA tools page <http://www.fia.fs.fed.us/tools-data/> or directly via <http://fiatools.fs.fed.us/NWOS/table-maker.jsp>.

For more information contact, Brett Butler at 413-545-1387 or bbutler01@fs.fed.us.

New Pellet Mill Opens in Cottondale, FL

In April 2008, SRS FIA, and Florida Forestry Division personnel, toured the new pellet mill in Cottondale, FL. Green Circle Bio Energy Inc. opened the world's largest pellet manufacturing facility in March 2008. Bill Waller, the plant manager, told the group that when this facility is fully operational it will run 24 hours a day using 160 truckloads of wood per day and produce 555,000 tons of pellets per year. The pellets will be sent to the port in Panama City, FL and then loaded on ships destined for northern Europe. The pellets will then be burned along with coal in coal-fired power plants to reduce SO₂ and NO₂ emissions from those power plants. Most pellet mills use hardwood sawdust to create the end product; however, this pellet mill is unique in the fact that it uses mostly green pine trees. Dead pine trees, such as those salvaged from insect or storm-damaged mortality, can be utilized as well. Harvested pine trees are brought to the plant, debarked, and then chipped much like traditional pulpmills or mulch mills. The bark is used to fuel a massive dryer that takes green chips from roughly 50% moisture content to 8% moisture content in 5 to 6 minutes at a temperature of 1700° F. The chips are then

pulverized by 13 large hammermills capable of handling 2 tons per hour. The pulverized sawdust is then compacted under great pressure, pelletized, and loaded into rail cars. Mr. Waller told the group that all wood coming into the plant was tracked from the forest to the plant and had to be Sustainable Forestry Initiative certified to meet the European contract specifications. Currently the mill is under contractual obligations for the next 5 years to European markets. He also stated that other areas are being studied and that more of these mills will be built around the South and in other parts of the world.



The final product, pellets by the handful.

News From Resource Use

For additional information about individual State TPO assessments, the Southern Pulpwood reports, or the TPO database contact Tony Johnson at 865-862-2042 or tjohnson09@fs.fed.us. For information regarding the Harvest and Utilization reports contact James Bentley at 865-862-2056 or jbentley@fs.fed.us.

With the ever increasing interest in the use of wood for energy, it is imperative that we canvass and report the volume of wood being used for these purposes. We are currently conducting Industry Surveys for 2007 in 10 of the 13 Southern States and will have Harvest and Utilization studies ongoing in 7 States (including FL) by the end of the summer. Information gathered from these studies should yield a much-needed update on the current status of the South's forest industry and use of wood for energy purposes.

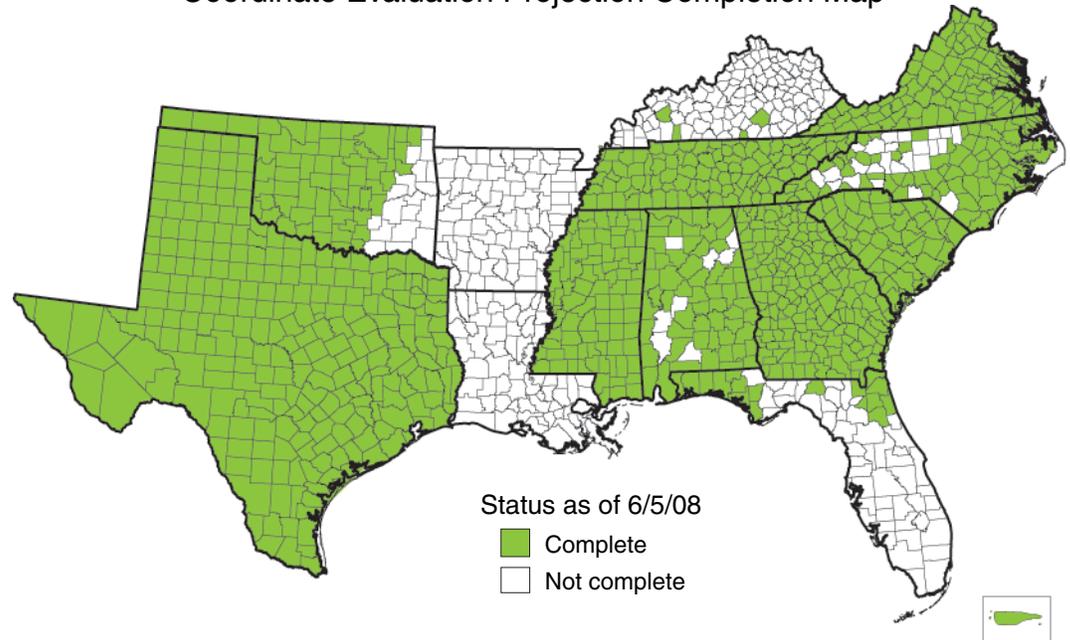
In fiscal year 2008, 12 individual State-level Timber Product Output (TPO) assessments will have been published for the 2005 survey year. In addition to updating the TPO database, the Resource Use Section has published the Southern TPO Assessment for 2005, the annual Southern Pulpwood Report for 2006, and is currently working on the Southern Pulpwood Trends 1953 to 2006, Historical Trends in Timber Product Output for the South, and Harvest and Utilization reports for South Carolina, Virginia, and Alabama.

Improvements to the Collection and Storage of Plot Coordinates

To enable faster data processing, minimize setbacks in the field, and to widen the use of coordinates for analysis of spatial data, the SRS FIA Coordinate Task Team recommended a series of steps to improve the quality of the unit's coordinate database and process of GPS data collection. Data preparation is in the process of assigning a best coordinate for all plot locations in the southern region. Field records and a Geographic Information System are used to determine the level of accuracy of the best coordinate. The project is scheduled to be completed in September 2008. Updates to the status map below can be seen at http://srsfia2.fs.fed.us/data_center/plot_tracking.shtml. The next States in queue are FL, KY, and AR.

In the next step to acquire high-quality GPS data, Bluetooth™ technology and EMTAC™ mini-S3 GPS receivers will be implemented in the field this year. The EMTAC™ mini-S3, about the size of a small cell phone, can be placed at plot center while the field crew collects plot data. After a few minutes of receiving satellite data, the wireless mini-S3 is ready to send the averaged plot coordinate to an Allegro™ CX (or CE) field computer. These changes are expected to eliminate transcription errors and improve database quality.

Coordinate Evaluation Projection Completion Map



For more information, contact Doug Shipley at 865-862-2049 or dshipley@fs.fed.us, or Sam Lambert at 865-862-2097 or slambert@fs.fed.us.

Knox County Elementary School Children Learn the Importance of Forests

In the early spring of this year KaDonna Randolph was invited to speak to two Knox County elementary school classes during their career week celebration. During her visit, KaDonna explained career opportunities within forestry and discussed the importance of forests to our communities. The students were introduced to some tools of the forestry

trade including the cruiser's vest, compass, and diameter tape, and were particularly impressed with the growth rings on a large tree *cookie*. The students had many questions for KaDonna including *have you seen a bear in the forest? how is paper made?*, and *how do you count all of the trees?*

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FIA is a USDA Forest Service research work unit which collects, analyzes, and reports on data pertaining to our forest land in the Southern region. This region includes Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, Puerto Rico, South Carolina, Tennessee, Texas, the U.S. Virgin Islands, and Virginia.

FIA conducts this program of research to improve the understanding of the Southern forest ecosystem.

Government and private agencies utilize this data to monitor forest resources, forest use, and forest health. The collection of data is done on private and public land.

Our system development success is a direct result of our partners, our talented scientists, analysts, computer specialists, and other staff members who have continually contributed to the mission of this complex project.

National and Southern FIA Websites of Interest

National FIA website: <http://www.fia.fs.fed.us>

National FIA database available at: <http://fia.fs.fed.us/tools-data/other/default.asp>

National Timber Product Output (TPO) database available at: <http://srsfia2.fs.fed.us/php/tpo2/tpo.php>

National Woodland Owner Survey website: <http://www.fia.fs.fed.us/nwos/>

Information specific to Southern States: http://srsfia2.fs.fed.us/states/state_information.shtml/

Electronic copies of SRS FIA publications at: <http://www.srs.fs.usda.gov/pubs/>