

The Inventory

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An Update Concerning the SRS FIA Program

SRS FIA Information Update

It's that time of year when individuals look back at what they accomplished during the year. It was a particularly difficult year as we lost 30+ days of work and production to the Federal furlough. Despite that lost time, SRS FIA still met our goals for the year—in my opinion. Data was posted and publications were completed.

Last month, SRS FIA hosted the Biennial National FIA Stakeholder Symposium in Knoxville. It was a tremendous success! Almost 300 individuals registered for the symposium and there were over 200 individual presentations. If that isn't a measurement of success and accomplishment for the National FIA Program, I don't know what is. I would like to publicly extend my thanks to the SRS FIA staff that handled the local logistics. If I tried to mention all of them by name, I'm sure that I'd leave someone off the list. One individual that I do want to specifically mention is Chris Oswalt. Chris led the planning and logistics committees. It was his leadership that contributed to the success. Thanks Chris!

The symposium was "kicked off" by Undersecretary Jim Hubbard who discussed the value of FIA to the Forest Service. It was followed by a panel with Regional Forester, Ken Arney of Region 8; Tennessee State Forester, David Arnold; and Southern Research Station Director, Rob Doudrick to discuss how FIA information was used by their organizations. There's more about the National FIA Symposium in an article in this issue of *The Inventory*.

As always, if you have any technical questions regarding FIA, please submit them to Janet Griffin (janet.griffin@usda.gov) and we'll answer them 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.

Bill

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***SRS FIA Hosts 2019
FIA Stakeholders
Science Meeting in
Knoxville, TN***

During three days in late November, the USDA Forest Service, Southern Research Station (SRS) Forest Inventory and Analysis (FIA) program, and Knoxville, TN became hosts to nearly 300 forest scientists, managers, and policy-makers from across the globe. Over 20 countries and more than 60 different organizations participated in the 2019 FIA Stakeholders Science Meeting. Meeting attendees met under the theme of “Celebrating Progress, Possibilities, and Partnerships” with significant help from FIA’s partner organization NCASI.

This biennial meeting draws a world-class group of partners, practitioners, and scientists with regional, national, and international inventory and monitoring missions. Maintaining the Forest Service’s leadership in this area requires both regular consultation with FIA’s users, as well as periodic technical exchange among scientists cooperating with FIA in fields such as data visualization, statistical inference, and remote sensing inventory techniques.

The meeting included over 190 presentations, 12 plenary speakers, and hands-on sharing of nearly 30 digital products from scientists and partners like ESRI, Texas A&M Forest Service, and Tableau (just to name a few). In addition, the USDA Forest Service

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International Programs office helped FIA coordinate a field tour of U.S. Inventory methods for international colleagues from across the globe. The plenary was headlined by Jim Hubbard, the current USDA Under Secretary of Natural Resources and the Environment, where he shared that FIA is one of the “crown jewels” of our great Agency. Other plenary speakers included Alex Friend (Deputy Chief for R&D, USDA Forest Service), Ken Arney (Regional Forester, Region 8, USDA Forest Service), Rob Doudrick (Station Director, Southern Research Station, USDA Forest Service), David Arnold (State Forester, Tennessee), Tom Martin (CEO, American Forest Foundation), Healey Hamilton (Chief Scientist, NatureServe), Andrew Hait (U.S. Census Bureau), and Songlin Fei (Professor, Purdue University).

My favorite part of the meeting was seeing so many partners and users of FIA data. Participation by so many highlights the fact that FIA could not accomplish so much without each of you! Partner and collaborator contributions serves as the backbone of our progress and our success story. Thank you and I look forward to seeing you somewhere in the north for the 2021 FIA Stakeholders Science Meeting.



University of Tennessee Forestry, Wildlife, and Fisheries Students and Professor Visit FIA

On October 21, five senior class members of the University of Tennessee Department of Forestry, Wildlife, and Fisheries forestry fall camp and class professor, Dr. Sheng-I Yang, visited the Southern Forest Inventory and Analysis (FIA) unit in Knoxville, Tennessee. The morning half of the day was spent in the office learning about FIA's history, sample design, database, and outputs from

KaDonna Randolph and Andy Hartsell. In the afternoon, John Simpson explained field data collection techniques at the FIA demonstration plot located at the University of Tennessee Arboretum in Oak Ridge. The inquisitive students also learned about different career pathways and heard many great stories about working for FIA.

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FIA forester John Simpson (red hat) discusses diameter measurements with students from the University of Tennessee Department of Forestry, Wildlife, and Fisheries.

Study on Southern Wood Pellets Mills Roundwood Consumption

Increasing wood pellet production in the southern region creates various concerns, including sustainable use of the forest resource as well as the potential effects to traditional industries using similar feedstocks (low-value roundwood and mill residues) among others. In a recent *Journal of Forestry* article (Brandeis and Abt 2019) we present an analysis of FIA's Timber Products Output (TPO) mill survey data, evaluating the changes in pellet mill roundwood use across the southern region between 2011 and 2015. We found wood pellet mills representing less than 2 percent of the region's total roundwood output in 2015, with softwood species the primary feedstock across all years. The proportion of hardwoods increased, however, as new mill capacity located within areas with available hardwood feedstocks increased.

TPO mill residue data revealed volume sold to wood pellet production increasing from nearly 1 percent to 5 percent of the 2011 and 2015 total mill residues, respectively. The sensitivity of the wood pellet industry to changes in mill residue availability and extent of shifts in mill residue use could be explored as more TPO data become available. A shift in mill residue

use from on-site fuel use to wood pellets, for instance, could have implications for energy portfolios at the local level as mills shift from on-site energy production to other energy sources.

Lastly our analysis also showed a tendency towards greater wood procurement distances with the increase in number of roundwood-using pellet mills (4 mills in 2011 to 9 mills in 2015). We expect these larger procurement areas will result in higher competition due to increase in overlap with other mills procuring similar materials, such as low grade and/or small logs. Research using TPO survey data to evaluate effects of changes likely motivated by this interaction across pulp and pellet mills is currently under way.

The article can be accessed at <https://www.fs.usda.gov/treesearch/pubs/59055>.

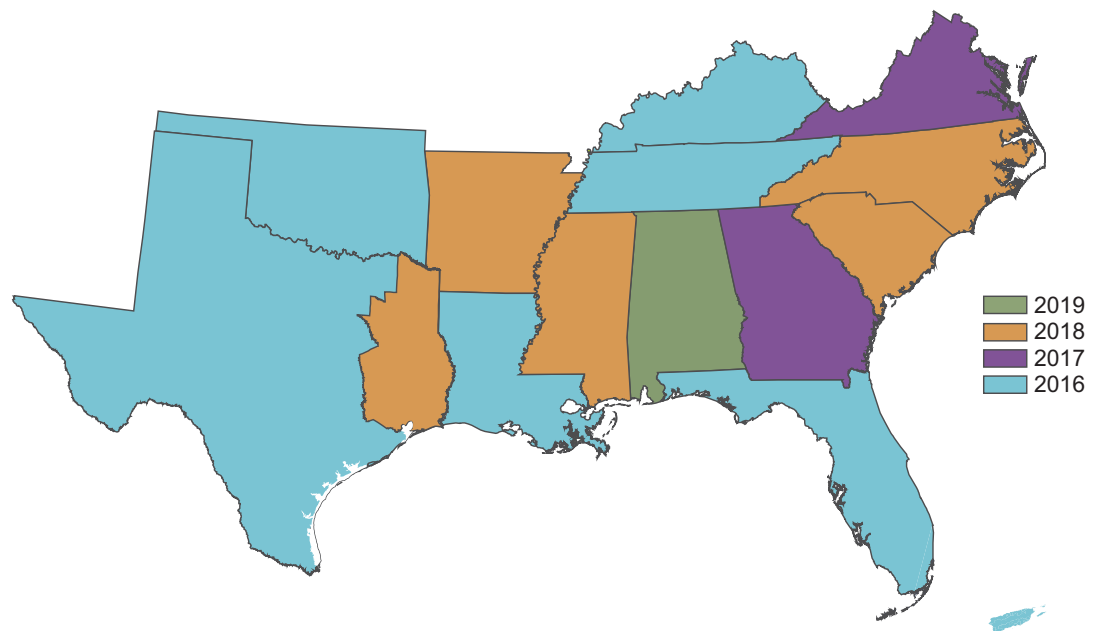
Citation: Brandeis, Consuelo; Abt, Karen Lee. 2019. Roundwood use by southern wood pellet mills: Findings from timber product output mill surveys. *Journal of Forestry*. 117(5): 427–434. <https://doi.org/10.1093/jofore/fvz042>.

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***FY 2020 Publications
Published since
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- Brandeis, C.; Abt, K.L.** 2019. Roundwood use by southern wood pellet mills: Findings from timber product output mill surveys. *Journal of Forestry*. 117(5): 427–434. <https://doi.org/10.1093/jofore/fvz042>. <https://srs.fs.usda.gov/pubs/59055>.
- Frey, G.E.; Alexander, S.J.; Chamberlain, J.L.; Blatner, K.A.; Coffin, A.W.; Barlow, R.J.** 2019. Markets and market values of nontimber forest products in the United States: A review, synthesis, and identification of future research needs. *Journal of Forestry*. 117(6): 613–631. <https://doi.org/10.1093/jofore/fvz051>. <https://srs.fs.usda.gov/pubs/59070>.
- Gopalakrishnan, R.; Kauffman, J.; Fagan, M.; Coulston, J.; Thomas, V.; Wynne, R.; Fox, T.; Quirino, V.** 2019. Creating landscape-scale site index maps for the southeastern US is possible with airborne LiDAR and Landsat imagery. *Forests*. 10(3): 234. <https://doi.org/10.3390/f10030234>. <https://srs.fs.usda.gov/pubs/59024>.
- Haight, R.G.; Bluffstone, R.; Kline, J.D.; Coulston, J.W.; Wear, D.N.; Zook, K.** 2019. Estimating the Present Value of Carbon Sequestration in U.S. Forests, 2015–2050, for Evaluating Federal Climate Change Mitigation Policies. *Agricultural and Resource Economics Review*. 2019: 1–28. <https://doi.org/10.1017/age.2019.20>. <https://srs.fs.usda.gov/pubs/59119>.
- Pengra, B.W.; Stehman, S.V.; Horton, J.A.; Dockter, D.J.; Schroeder, T.A.; Yang, Z.; Cohen, W.B.; Healey, S.P.; Loveland, T.R.** 2019. Quality control and assessment of interpreter consistency of annual land cover reference data in an operational national monitoring program. *Remote Sensing Environ.* doi: <https://doi.org/10.1016/j.rse.2019.111261>. <https://srs.fs.usda.gov/pubs/58617>.
- Trout Fryxell, R T; Vogt, J.T.** 2019. Collaborative-tick surveillance works: An academic and government partnership for tick surveillance in the southeastern United States (Acari: Ixodidae). *J. Medical Entomology*. 8: 1411–1419. <https://doi.org/10.1093/jme/tjz055>. <https://srs.fs.usda.gov/pubs/58358>.
- Vissage, J.S.; Greer, T.R., Jr.; Brandeis, T.J.** 2019. Site class and site index: two estimates of site quality for the Southern Research Station Forest Inventory and Analysis Program. e-Res. Note SRS–025. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 13 p. <https://srs.fs.usda.gov/pubs/59065>.
- Wear, D.N.; Coulston, J.W.** 2019. Specifying forest sector models for forest carbon projections. *Journal of Forest Economics*. 34(1-2): 73–97. <https://srs.fs.usda.gov/pubs/58995>.

Current Status of FIA Data Posted



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Status of Current Field Inventories

| State | Cycle start date | Subcycle start date | Cycle and inventory year of current inventory | Percent of current subcycle collection completed |
|---------------------------|------------------|---------------------|---|--|
| Alabama | 2016 | Apr., 2019 | 10:2020 | 74 |
| Arkansas | 2017 | Mar., 2019 | 11:2019 | 81 |
| Florida | 2014 | June, 2018 | 10:2019 | 40 |
| Georgia | 2015 | June, 2019 | 11:2019 | 39 |
| Kentucky | 2016 | June, 2018 | 08:2017 | 97 |
| Kentucky ^o | 2017 | Sep., 2019 | 08:2018 | 8 |
| Louisiana | 2016 | Oct., 2019 | 09:2018 | 16 |
| Mississippi | 2017 | Mar., 2019 | 10:2019 | 85 |
| North Carolina | 2016 | Oct., 2019 | 10:2020 | 15 |
| Oklahoma (east) | 2015 | Nov., 2019 | 09:2018 | 4 |
| Oklahoma (west) | 2009 | Mar., 2018 | 02:2018 | 99 |
| Puerto Rico | 2016 | Nov., 2017 | 06:2018 | 84 |
| Puerto Rico ^o | 2016 | Apr., 2019 | 06:2019 | 100 |
| South Carolina | 2017 | May 2019 | 12:2019 | 58 |
| Tennessee | 2016 | Oct., 2019 | 10:2018 | 12 |
| Texas (east) | 2013 | Dec., 2018 | 10:2020 | 25 |
| Texas (west) | 2015 | Nov., 2018 | 02:2017 | 94 |
| Texas (west) ^o | 2016 | Aug., 2019 | 02:2018 | 13 |
| U.S. Virgin Islands | 2014 | Sep., 2014 | 03:2014 | 100 |
| Virginia | 2017 | June, 2019 | 11:2019 | 12 |

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Information compiled December 6, 2019.

^oClosing out prior panel—beginning new panel.

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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.

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National and Southern FIA Web sites of Interest

National FIA Web site: <http://www.fia.fs.fed.us>
 National FIA database available at: <http://www.fia.fs.fed.us/tools-data/>
 National Timber Product Output (TPO) database available at: <http://srsfia2.fs.fed.us/>
 National Woodland Owner Survey Web site: <http://www.fia.fs.fed.us/nwos/>
 Information specific to Southern States: <http://srsfia2.fs.fed.us/>
 Electronic copies of SRS FIA publications at: <http://www.srs.fs.usda.gov/pubs/>