Introduction

This science update contains the findings of a 2011 canvass of all primary wood-using plants in Kentucky, and presents changes in product output and residue use since 2009. It complements the Forest Inventory and Analysis (FIA) annual inventory of volume and removals from the State’s timberland. The canvass was conducted to determine the amount and source of wood receipts and annual timber product drain, by county, in 2011 and to determine interstate and cross-regional movement of industrial roundwood. Only primary wood-using mills were canvassed. Primary mills are those that process roundwood in log or bolt form or as chipped roundwood. Examples of industrial roundwood products are saw logs, pulpwood, veneer logs, poles, and logs used for composite board products. Mills producing products from residues generated at primary and secondary processors were not canvassed. Trees chipped in the woods were included in the estimate of timber drain only if they were delivered to a primary domestic manufacturer.

A 100-percent canvass of all wood processors in Kentucky was conducted in 2012 to obtain information for 2011. In addition, roundwood from out-of-State mills known to be using logs or bolts harvested from Kentucky timberland was incorporated into Kentucky production estimates. Each mill was canvassed by mail or through personal contact at plant locations. Telephone contacts followed mailed questionnaire responses when additional information or clarification of a response was necessary. In the event of a nonresponse, data collected in previous surveys were updated using current data collected for mills of similar size, product type, and location. Surveys for all timber products other than pulpwood began in 1948, and are currently conducted every 2 years.

Pulpwood production data were taken from an annual canvass of all southern pulpmills. Medium density fiberboard, insulating board, and hardboard plants were included in this survey. The FIA Research Work Unit of the Forest Service, U.S. Department of Agriculture developed the Timber Product Output (TPO) Database Retrieval System to help customers answer questions about timber harvesting and use in the Southern region. This system acts as an interface to a standard set of consistently coded TPO data for each State and county in the region and Nation. The database is well documented and easy to use. The retrieval system allows the user to select the TPO variables of interest and generate a standard set of timber products, removals, and mill residue tables for the specified resource area, State, or region. The system is available through the FIA Web site: http://srsfia2.fs.fed.us/. The Excel® core tables and figures that complement this science update are available on the TPO database.

The Southern Research Station gratefully acknowledges the tremendous cooperation and assistance provided by the Kentucky Division of Forestry in collecting mill data. Appreciation is also extended to forest industry and mill managers for providing timber products information.
**All Products**

- Industrial timber product output from roundwood increased 17.6 million cubic feet, or 13 percent, to 153.9 million cubic feet.

- Output of industrial hardwood roundwood products was up 16 percent to 147.0 million cubic feet, while output of industrial softwood roundwood products decreased 30 percent to 6.9 million cubic feet (fig. 1).

- Saw logs and pulpwood were the principal roundwood products in 2011. Combined output of these two products totaled 147.6 million cubic feet and accounted for 96 percent of the State’s total industrial roundwood output (fig. 2).

- Total receipts at Kentucky mills, which included roundwood harvested and retained in the State and roundwood imported from other States, was up 19 percent from 146.7 million cubic feet to 174.8 million cubic feet.

- In 2011, the number of primary roundwood-using plants in Kentucky was 225, the same as in 2009 (fig. 3). The number of sawmills decreased by four, while the number of pulpmills, veneer, and composite panel mills remained stable and other miscellaneous mills increased by four.

- Across all products, 84 percent of roundwood harvested was retained for processing at Kentucky mills. Exports of roundwood to other States amounted to 24.6 million cubic feet, while imports of roundwood amounted to 45.5 million cubic feet, making the State a net importer of roundwood.
Saw Logs

- Saw logs accounted for 74 percent of the State’s total roundwood products. Output of hardwood saw logs increased 12 percent to 111.4 million cubic feet, while that of softwood saw logs dropped 10 percent to 2.5 million cubic feet (fig. 4).

- In 2011, Kentucky had 213 sawmills, 4 fewer mills than in 2009. Total saw-log receipts were up 10.6 million cubic feet to 110.6 million cubic feet. Hardwood saw-log receipts increased 12 percent to 108.1 million cubic feet, while those of softwoods declined 21 percent to 2.4 million cubic feet.

- Kentucky retained 90 percent of its saw-log production for within-State manufacture, with saw-log exports exceeding imports by 3.3 million cubic feet in 2011.

Other Industrial Products

- Roundwood harvested for other industrial uses such as poles, posts, mulch, residential firewood, industrial fuel, logs for log homes, veneer, and all other industrial products totaled 6.3 million cubic feet. Hardwood made up 69 percent of the other industrial products volume.

- The number of plants producing other industrial products totaled 10 in 2011. Combined receipts of other industrial and pulpwood products from softwood and hardwood totaled 64.3 million cubic feet. Industrial fuel accounted for 724,000 cubic feet, or 1 percent, of receipt volume for this category.

Pulpwood

- Total pulpwood production increased 21 percent to 33.7 million cubic feet and accounted for 22 percent of the State’s total roundwood TPO compared to 21 percent of total roundwood TPO in 2009. Hardwood output was up 41 percent to 31.2 million cubic feet; softwood output decreased 57 percent to 2.5 million cubic feet (fig. 5).

- The processing of saw logs generated 71.0 million cubic feet of mill residues, accounting for 90 percent of the total residues produced (fig. 7).

Plant Byproducts

- In 2011, processing of primary products in Kentucky mills generated 79.0 million cubic feet of wood and bark residues. Coarse residues from all primary products amounted to 36.7 million cubic feet, while bark volume totaled 19.1 million cubic feet. Collectively, sawdust and shavings made up 29 percent of total residues, or 23.1 million cubic feet (fig. 6).
• Ninety-nine percent, or 78.3 million cubic feet, of the wood and bark residues were used for a product. While 1 percent of the residues were not used for a product, 30 percent of the residues were used for industrial fuel, 25 percent were used for charcoal/chemical wood, and 20 percent were used for fiber products (fig. 8). Forty-four percent, or 16.1 million cubic feet, of the coarse residues were used for fiber products. Forty-six percent of the bark was used for industrial fuel, while 48 percent of the sawdust and shavings were used for industrial fuel.

**How to Cite this Publication**