Introduction

This science update contains the findings of a 2013 canvass of all primary wood-using plants in Arkansas, and presents changes in product output and residue use since 2011. 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 2013 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 Arkansas was conducted in 2014 to obtain information for 2013. In addition, roundwood from out-of-State mills known to be using logs or bolts harvested from Arkansas timberland was incorporated into Arkansas 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 used to update the current survey. 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 Forest Inventory and Analysis (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 Excel® core tables and figures that complement this science update are available on the FIA Web site: https://srsfia2.fs.fed.us/.

The SRS gratefully acknowledges the tremendous cooperation and assistance provided by the Arkansas Forestry Commission in collecting mill data. Appreciation is also extended to forest industry and mill managers for providing timber products information.

<table>
<thead>
<tr>
<th>Product and species group</th>
<th>2011</th>
<th>2013</th>
<th>Change</th>
<th>Change percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Saw logs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Softwood</td>
<td>176,471</td>
<td>182,481</td>
<td>6,010</td>
<td>3.4</td>
</tr>
<tr>
<td>Hardwood</td>
<td>39,777</td>
<td>42,541</td>
<td>2,764</td>
<td>6.9</td>
</tr>
<tr>
<td>Total</td>
<td>216,248</td>
<td>225,022</td>
<td>8,774</td>
<td>4.1</td>
</tr>
<tr>
<td><strong>Veneer logs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Softwood</td>
<td>46,689</td>
<td>26,421</td>
<td>-20,268</td>
<td>-43.4</td>
</tr>
<tr>
<td>Hardwood</td>
<td>954</td>
<td>78</td>
<td>-876</td>
<td>-91.8</td>
</tr>
<tr>
<td>Total</td>
<td>47,643</td>
<td>26,499</td>
<td>-21,144</td>
<td>-44.4</td>
</tr>
<tr>
<td><strong>Pulpwood</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Softwood</td>
<td>160,188</td>
<td>156,680</td>
<td>-3,508</td>
<td>-2.2</td>
</tr>
<tr>
<td>Hardwood</td>
<td>88,585</td>
<td>92,960</td>
<td>4,375</td>
<td>4.9</td>
</tr>
<tr>
<td>Total</td>
<td>248,773</td>
<td>249,640</td>
<td>867</td>
<td>0.3</td>
</tr>
</tbody>
</table>

**Table 1—Output of industrial products by product and species group, Arkansas, 2011 and 2013**
All Products

Industrial timber product output from roundwood experienced no significant change at 535.3 million cubic feet.

Output of industrial softwood roundwood products was down 3 percent, to 395.5 million cubic feet, while output of industrial hardwood roundwood products increased 8 percent to 139.8 million cubic feet (fig. 1).

Pulpwood and saw logs were the principal roundwood products in 2013. Combined output of these two products totaled 474.6 million cubic feet and accounted for 89 percent of the State's total industrial roundwood output (fig. 2). Total receipts at Arkansas mills, which included roundwood harvested and retained in the State and roundwood imported from other States, was up 1 percent from 589.8 million cubic feet to 592.9 million cubic feet.

The number of primary roundwood-using plants in Arkansas increased from 95 in 2011 to 99 in 2013 (fig. 3).

Across all products, 90 percent of roundwood harvested was retained for processing at Arkansas mills. Exports of roundwood to other States amounted to 51.7 million cubic feet, while imports of roundwood amounted to 109.2 million cubic feet making the State a net importer of roundwood.

---

Pulpwood

Total pulpwood production experienced no significant change at 249.6 million cubic feet but accounted for 47 percent of the State's total roundwood. Softwood output was down 2 percent to 156.7 million cubic feet. Although hardwood output increased 5 percent to 93 million cubic feet (fig. 4).

Six pulpmill facilities were operating and receiving roundwood in Arkansas in 2013, the same since 2002. Total pulpwood receipts for these mills decreased to 270.8 million cubic feet, accounting for 46 percent of total receipts for all mills.
Eighty-one percent of roundwood cut for pulpwood was retained for processing at Arkansas pulpmills. Roundwood pulpwood accounted for 92 percent of total known exports and 63 percent of total imports.

**Saw Logs**

Saw logs accounted for 42 percent of the State's total roundwood products. Output of softwood saw logs increased 3 percent to 182.5 million cubic feet, while that of hardwood saw logs increased 7 percent to 42.5 million cubic feet (fig. 5).

In 2013, Arkansas had 83 sawmills, 4 more mills than in 2011. Total saw-log receipts were up 3 percent to 245.3 million cubic feet. Softwood saw-log receipts increased 3 percent to 201.7 million cubic feet, while those of hardwoods increased 7 percent to 43.6 million cubic feet.

Arkansas retained 99 percent of its saw-log production for within State manufacture, with saw-log imports exceeding exports by 57.5 million cubic feet in 2013.

**Veneer Logs**

Output of veneer logs in 2013 totaled 26.5 million cubic feet, a 44 percent decrease since 2011, and accounted for 5 percent of the State's total roundwood TPO volume (fig. 6).

The number of veneer mills operating in Arkansas decreased to 3 for 2013. Receipts of veneer logs decreased 33 percent to 39.4 million cubic feet.

**Other Industrial Products**

Roundwood harvested for other industrial uses such as poles, posts, mulch, residential firewood, industrial fuel, logs for log homes, composite panels, and all other industrial products totaled 34.1 million cubic feet. Softwood made up 88 percent of the other industrial products volume.

The number of plants producing other industrial products totaled 7 in 2013. Receipts of other industrial products totaled 37.3 million cubic feet.
Plant Byproducts

In 2013, processing of primary products in Arkansas mills generated 219.5 million cubic feet of wood and bark residues. Coarse residues from all primary products amounted to 96.4 million cubic feet, while bark volume totaled 56.0 million cubic feet. Collectively, sawdust and shavings made up 33 percent of total residues, or 72.3 million cubic feet (fig. 7).

The processing of saw logs generated 160.3 million cubic feet of mill residues, accounting for 75 percent of the total residues produced (fig. 8).

Nearly 219.3 million cubic feet, or 100 percent, of the wood and bark residues were used for a product. While <1 percent of the residues were not used for a product, 54 percent of the residues were used for industrial fuel and 43 percent were used for fiber products (fig. 9).

Ninety-three percent, or 89.7 million cubic feet, of the coarse residues were used for fiber products. Ninety-eight percent of the bark was used for industrial fuel, while 83 percent of the sawdust and shavings were used for industrial fuel.

How to Cite This Publication

Contact Information
David J Wall, Forester
Forest Inventory and Analysis
Southern Research Station, USDA Forest Service
4700 Old Kingston Pike
Knoxville, Tennessee 37919
Phone: 601-384-5876x160 / Fax: 865-862-0248
Email: djwall@fs.fed.us
Southern FIA: https://srsfia2.fs.fed.us
National FIA: https://fia.fs.fed.us

James Bentley, Forester
Forest Inventory and Analysis
Southern Research Station, USDA Forest Service
4700 Old Kingston Pike
Knoxville, Tennessee 37919
Phone: 865-862-2056 / Fax: 865-862-0248
Email: jamesbentley@fs.fed.us
Southern FIA: https://srsfia2.fs.fed.us
National FIA: https://fia.fs.fed.us

USDA is an equal opportunity provider and employer

The published report is available online at https://treesearch.fs.fed.us