

# Forest Nursery Seedling Production in the United States—Fiscal Year 2020

Diane L. Haase, Carolyn Pike, Scott Enebak, Lori Mackey, Zhao Ma, Chelsea Silva, and Jim Warren

*Western Nursery Specialist, U.S. Department of Agriculture (USDA), Forest Service, Portland, OR; Northeastern Area Regeneration Specialist, USDA Forest Service, West Lafayette, IN; Director, Southern Forest Nursery Management Cooperative, School of Forestry and Wildlife Sciences, Auburn University, Auburn, AL; Special Projects Coordinator, Center for Forest Nursery and Seedling Research, Department of Forest, Rangeland, and Fire Sciences, University of Idaho, Moscow, ID; Professor, Purdue University, Department of Forestry and Natural Resources, West Lafayette, IN; Graduate Student, Department of Forestry and Natural Resources, Purdue University, West Lafayette, IN; Biological Scientist, USDA Forest Service, Northern Research Station, West Lafayette, IN*

## Abstract

Forest nursery production for the 2020 planting season was more than 1.27 billion tree seedlings (including about 18.5 million container seedlings imported from Canada). Approximately 73 percent of seedlings were produced as bareroot stock. Only a small portion (3 percent) of seedlings were hardwood species. Seedling production in some States was affected by the coronavirus pandemic which left some nurseries unable to lift and ship their stock. Based on this total number of seedlings and estimated planting densities in each State, more than 2.4 million ac (977,542 ha) were planted. Approximately 84 percent of production and planting occurred in the southern States.

## Background

This annual report summarizes forest nursery seedling production in the United States. The number of seedlings reported is used to estimate the number of acres of forest planting per year. Prepared by the U.S. Department of Agriculture, Forest Service, Forest Inventory and Analysis (FIA) and State and Private Forestry, this report includes State-by-State breakdowns, regional totals, and an analysis of data trends. Universities in the Southern, Northeastern, and Western Regions of the United States made an effort to collect data from all the major producers of forest and conservation seedlings in the 50 States. Forest and conservation nursery managers provided

the information presented in this report. Because all data are provided voluntarily by outside sources and some data are estimated, caution must be used in drawing inferences.

## Methodology

State and Private Forestry, in collaboration with Auburn University, the University of Idaho, and Purdue University, produced the data for this report. These universities collected forest tree seedling production data directly from the forest and conservation nurseries that grow forest tree seedlings in their region of the United States (Auburn University collected from 13 States in the Southeast, the University of Idaho collected from 17 States in the West, and Purdue University collected from 21 States in the Northeast and Midwest). The estimate of planted acres for each State was calculated using FIA estimates of planting densities. In addition, FIA average annual estimates of tree planting area based on ground-plot data that States collected during 5-, 7-, or 10-year periods is included. FIA estimates of acres of trees planted by State may not correlate with nursery production surveys because nurseries do not report shipments across State lines. Total acres by region, however, provide a reasonable estimate of planted acreage. Data collected are reported for both hardwood and conifer species by bareroot and container seedlings produced (table 1) and by estimated acreage planted of each (table 2).

Table 1. Hardwood and conifer tree seedling production for each State and each region during the 2020 planting year.

| State                  | Bareroot<br>hardwood | Container<br>hardwood | Total<br>hardwood | Bareroot<br>conifer | Container<br>conifer | Imported<br>container<br>conifer | Total<br>conifer   | Total<br>seedlings<br>produced |
|------------------------|----------------------|-----------------------|-------------------|---------------------|----------------------|----------------------------------|--------------------|--------------------------------|
| <b>Southeast</b>       |                      |                       |                   |                     |                      |                                  |                    |                                |
| Florida                | 1,547,000            | 174,000               | 1,721,000         | 47,614,000          | 3,368,000            | —                                | 50,982,000         | 52,703,000                     |
| Georgia                | 3,927,000            | —                     | 3,927,000         | 199,645,000         | 133,732,000          | —                                | 333,377,000        | 337,304,000                    |
| North Carolina         | 231,000              | —                     | 231,000           | 54,310,000          | 12,204,000           | —                                | 66,514,000         | 66,745,000                     |
| South Carolina         | —                    | —                     | —                 | 148,944,000         | —                    | —                                | 148,944,000        | 148,944,000                    |
| Virginia               | 1,206,000            | —                     | 1,206,000         | 29,115,000          | 427,000              | —                                | 29,542,000         | 30,748,000                     |
| <b>Regional Totals</b> | <b>6,911,000</b>     | <b>174,000</b>        | <b>7,085,000</b>  | <b>479,628,000</b>  | <b>149,731,000</b>   | <b>0</b>                         | <b>629,359,000</b> | <b>636,444,000</b>             |
| <b>South Central</b>   |                      |                       |                   |                     |                      |                                  |                    |                                |
| Alabama                | 5,051,000            | 10,000                | 5,061,000         | 87,845,000          | 28,455,000           | —                                | 116,300,000        | 121,361,000                    |
| Arkansas               | 9,149,000            | —                     | 9,149,000         | 84,245,000          | —                    | —                                | 84,245,000         | 93,394,000                     |
| Kentucky               | 546,240              | —                     | 546,240           | 7,683,000           | —                    | —                                | 7,683,000          | 8,229,240                      |
| Louisiana              | —                    | —                     | —                 | —                   | 44,904,000           | —                                | 44,904,000         | 44,904,000                     |
| Mississippi            | 1,000,000            | 154,000               | 1,154,000         | 73,718,000          | 11,000,000           | —                                | 84,718,000         | 85,872,000                     |
| Oklahoma               | 451,000              | 3,000                 | 454,000           | 2,396,000           | 160,000              | —                                | 2,556,000          | 3,010,000                      |
| Tennessee              | 1,750,000            | —                     | 1,750,000         | 3,400,000           | —                    | —                                | 3,400,000          | 5,150,000                      |
| Texas                  | —                    | —                     | —                 | 76,781,000          | —                    | —                                | 76,781,000         | 76,781,000                     |
| <b>Regional Totals</b> | <b>17,947,240</b>    | <b>167,000</b>        | <b>18,114,240</b> | <b>336,068,000</b>  | <b>84,519,000</b>    | <b>0</b>                         | <b>420,587,000</b> | <b>438,701,240</b>             |
| <b>Northeast</b>       |                      |                       |                   |                     |                      |                                  |                    |                                |
| Connecticut            | —                    | 2,000                 | 2,000             | —                   | 500                  | —                                | 500                | 2,500                          |
| Delaware               | —                    | —                     | —                 | —                   | —                    | —                                | —                  | —                              |
| Maine <sup>1</sup>     | —                    | 2,055                 | 2,055             | 2,000               | 1,100                | 3,600,000                        | 3,603,100          | 3,605,155                      |
| Maryland               | 1,006,420            | 50,500                | 1,056,920         | 639,775             | 400                  | —                                | 640,175            | 1,697,095                      |
| Massachusetts          | 5,001                | 50,010                | 55,011            | —                   | 4,000                | —                                | 4,000              | 59,011                         |
| New Hampshire          | 16,850               | —                     | 16,850            | 184,910             | —                    | —                                | 184,910            | 201,760                        |
| New Jersey             | 35,550               | —                     | 35,550            | 17,375              | —                    | —                                | 17,375             | 52,925                         |
| New York               | 90,900               | 20,678                | 111,578           | 445,000             | 25,140               | —                                | 470,140            | 581,718                        |
| Pennsylvania           | 54,333               | 25,500                | 79,833            | 10,826              | 100                  | —                                | 10,926             | 90,759                         |
| Rhode Island           | —                    | —                     | —                 | —                   | —                    | —                                | —                  | —                              |
| Vermont                | 500                  | 100                   | 600               | 100                 | 150                  | —                                | 250                | 850                            |
| West Virginia          | 82,908               | —                     | 82,908            | 45,535              | —                    | —                                | 45,535             | 128,443                        |
| <b>Regional Totals</b> | <b>1,292,462</b>     | <b>150,843</b>        | <b>1,443,305</b>  | <b>1,345,521</b>    | <b>31,390</b>        | <b>3,600,000</b>                 | <b>4,976,911</b>   | <b>6,420,216</b>               |
| <b>North Central</b>   |                      |                       |                   |                     |                      |                                  |                    |                                |
| Illinois               | 590,000              | 7,025                 | 597,025           | 175,000             | 2,040                | —                                | 177,040            | 774,065                        |
| Indiana                | 1,905,465            | 810                   | 1,906,275         | 757,800             | 450                  | —                                | 758,250            | 2,664,525                      |
| Iowa                   | 315,620              | 500                   | 316,120           | 10,125              | 2,500                | —                                | 12,625             | 328,745                        |
| Michigan <sup>1</sup>  | 4,792,593            | 500                   | 4,793,093         | 3,716,203           | 20,000               | 7,920,888                        | 11,657,091         | 16,450,184                     |
| Minnesota <sup>1</sup> | 23,725               | 2,250                 | 25,975            | 931,725             | 60,015               | 91,720                           | 1,083,460          | 1,109,435                      |
| Missouri               | 1,035,770            | —                     | 1,035,770         | 498,900             | —                    | —                                | 498,900            | 1,534,670                      |

| State                    | Bareroot<br>hardwood | Container<br>hardwood | Total<br>hardwood | Bareroot<br>conifer | Container<br>conifer | Imported<br>container<br>conifer | Total<br>conifer     | Total<br>seedlings<br>produced |
|--------------------------|----------------------|-----------------------|-------------------|---------------------|----------------------|----------------------------------|----------------------|--------------------------------|
| Ohio                     | 2,000                | 4,000                 | 6,000             | —                   | —                    | —                                | —                    | 6,000                          |
| Wisconsin <sup>1</sup>   | 173,595              | 114,120               | 287,715           | 592,915             | 546,550              | 131,660                          | 1,271,125            | 1,558,840                      |
| <b>Regional Totals</b>   | <b>8,838,768</b>     | <b>129,205</b>        | <b>8,967,973</b>  | <b>6,682,668</b>    | <b>631,555</b>       | <b>8,144,268</b>                 | <b>15,458,491</b>    | <b>24,426,464</b>              |
| <b>Great Plains</b>      |                      |                       |                   |                     |                      |                                  |                      |                                |
| Kansas                   | —                    | 25,000                | 25,000            | —                   | 50,000               | —                                | 50,000               | 75,000                         |
| Nebraska                 | 402,545              | 4,000                 | 406,545           | 360,000             | 850,000              | —                                | 1,210,000            | 1,616,545                      |
| North Dakota             | 19,575               | 14,856                | 34,431            | 548,196             | 78,552               | —                                | 626,748              | 661,179                        |
| South Dakota             | 234,822              | 1,070                 | 235,892           | 273,975             | 12,780               | —                                | 286,755              | 52,2647                        |
| <b>Regional Totals</b>   | <b>656,942</b>       | <b>44,926</b>         | <b>701,868</b>    | <b>1,182,171</b>    | <b>991,332</b>       | <b>0</b>                         | <b>2,173,503</b>     | <b>2,875,371</b>               |
| <b>Intermountain</b>     |                      |                       |                   |                     |                      |                                  |                      |                                |
| Arizona                  | —                    | 5,120                 | 5,120             | -                   | 680                  | —                                | 680                  | 5,800                          |
| Colorado                 | 60,225               | 39,124                | 99,349            | 12,925              | 119,114              | —                                | 132,039              | 231,388                        |
| Idaho <sup>1</sup>       | —                    | 63,739                | 63,739            | 1,994,408           | 5,118,614            | 3,942,980                        | 11,056,002           | 11,119,741                     |
| Montana <sup>1</sup>     | 89,766               | 140,384               | 230,150           | —                   | 673,647              | 64,000                           | 737,647              | 967,797                        |
| Nevada                   | —                    | 2,600                 | 2,600             | —                   | 170                  | —                                | 170                  | 2,770                          |
| New Mexico               | —                    | 4,500                 | 4,500             | —                   | 54,000               | —                                | 54,000               | 58,500                         |
| Utah                     | 20,000               | 1,500                 | 21,500            | 5,000               | 2,000                | —                                | 7,000                | 28,500                         |
| Wyoming                  | —                    | —                     | —                 | —                   | —                    | —                                | —                    | —                              |
| <b>Regional Totals</b>   | <b>169,991</b>       | <b>256,967</b>        | <b>426,958</b>    | <b>2,012,333</b>    | <b>5,968,225</b>     | <b>4,006,980</b>                 | <b>11,987,538</b>    | <b>12,414,496</b>              |
| <b>Alaska</b>            |                      |                       |                   |                     |                      |                                  |                      |                                |
| Alaska                   | —                    | —                     | —                 | —                   | —                    | —                                | —                    | —                              |
| <b>Pacific Northwest</b> |                      |                       |                   |                     |                      |                                  |                      |                                |
| Oregon <sup>1</sup>      | 1,806,650            | 2,309,540             | 4,116,190         | 33,924,235          | 37,864,909           | 786,850                          | 72,575,994           | 76,692,184                     |
| Washington <sup>1</sup>  | 169,400              | 48,920                | 218,320           | 3,1457,050          | 18,315,297           | 2,008,550                        | 51,780,897           | 51,999,217                     |
| <b>Regional Totals</b>   | <b>1,976,050</b>     | <b>2,358,460</b>      | <b>4,334,510</b>  | <b>65,381,285</b>   | <b>56,180,206</b>    | <b>2,795,400</b>                 | <b>124,356,891</b>   | <b>128,691,401</b>             |
| <b>Pacific Southwest</b> |                      |                       |                   |                     |                      |                                  |                      |                                |
| California               | —                    | 72,900                | 72,900            | 1,155,489           | 23,334,217           | —                                | 24,489,706           | 24,562,606                     |
| Hawaii                   | —                    | 10,500                | 10,500            | —                   | 500                  | —                                | 500                  | 11,000                         |
| <b>Regional Totals</b>   | <b>0</b>             | <b>83,400</b>         | <b>83,400</b>     | <b>1,155,489</b>    | <b>23,334,717</b>    | <b>0</b>                         | <b>24,490,206</b>    | <b>24,573,606</b>              |
| <b>Totals</b>            | <b>37,792,453</b>    | <b>3,364,801</b>      | <b>41,157,254</b> | <b>893,455,467</b>  | <b>321,387,425</b>   | <b>18,546,648</b>                | <b>1,233,389,540</b> | <b>1,274,546,794</b>           |

<sup>1</sup>Totals include an estimate of container conifers produced in Canada; bareroot imports for Maine and containers for other States.

Table 2. Esitmated hardwood and conifer tree seedling acres planted for each State and each region during the 2020 planting year.

| State                       | Hardwood<br>acres planted | Conifer acres<br>planted | Total acres<br>planted | FIA estimated<br>acres planted <sup>9</sup> |
|-----------------------------|---------------------------|--------------------------|------------------------|---------------------------------------------|
| <b>Southeast</b>            |                           |                          |                        |                                             |
| Florida <sup>2</sup>        | 3,129                     | 92,695                   | 95,824                 | 150,006                                     |
| Georgia <sup>2</sup>        | 7,140                     | 606,140                  | 613,280                | 212,353                                     |
| North Carolina <sup>2</sup> | 420                       | 120,935                  | 121,355                | 108,401                                     |
| South Carolina <sup>2</sup> | —                         | 270,807                  | 270,807                | 88,362                                      |
| Virginia <sup>2</sup>       | 2,193                     | 53,713                   | 55,905                 | 57,031                                      |
| <b>Regional Totals</b>      | <b>12,882</b>             | <b>1,144,289</b>         | <b>1,157,171</b>       | <b>616,153</b>                              |
| <b>South Central</b>        |                           |                          |                        |                                             |
| Alabama <sup>2</sup>        | 9,202                     | 211,455                  | 220,656                | 218,748                                     |
| Arkansas <sup>2</sup>       | 16,635                    | 153,173                  | 169,807                | 89,136                                      |
| Kentucky <sup>3</sup>       | 1,256                     | 17,662                   | 18,918                 | 1,142                                       |
| Louisiana <sup>2</sup>      | —                         | 81,644                   | 81,644                 | 160,561                                     |
| Mississippi <sup>2</sup>    | 2,098                     | 154,033                  | 156,131                | 140,495                                     |
| Oklahoma <sup>2</sup>       | 825                       | 4,647                    | 5,473                  | 31,659                                      |
| Tennessee <sup>2</sup>      | 3,182                     | 6,182                    | 9,364                  | 24,386                                      |
| Texas <sup>2</sup>          | —                         | 139,602                  | 139,602                | 126,044                                     |
| <b>Regional Totals</b>      | <b>33,198</b>             | <b>768,397</b>           | <b>801,594</b>         | <b>792,171</b>                              |
| <b>Northeast</b>            |                           |                          |                        |                                             |
| Connecticut <sup>3</sup>    | 5                         | 1                        | 6                      | -                                           |
| Delaware <sup>2</sup>       | -                         | -                        | -                      | 515                                         |
| Maine <sup>5</sup>          | 3                         | 6,005                    | 6,009                  | 4,069                                       |
| Maryland <sup>2</sup>       | 1,922                     | 1,164                    | 3,086                  | —                                           |
| Massachusetts <sup>3</sup>  | 126                       | 9                        | 136                    | —                                           |
| New Hampshire <sup>3</sup>  | 39                        | 425                      | 464                    | 402                                         |
| New Jersey <sup>3</sup>     | 82                        | 40                       | 122                    | —                                           |
| New York <sup>5</sup>       | 186                       | 784                      | 970                    | 2,077                                       |
| Pennsylvania <sup>3</sup>   | 184                       | 25                       | 209                    | 1,847                                       |
| Rhode Island                | —                         | —                        | —                      | —                                           |
| Vermont <sup>3</sup>        | 1                         | 1                        | 2                      | —                                           |
| West Virginia <sup>3</sup>  | 191                       | 105                      | 295                    | —                                           |
| <b>Regional Totals</b>      | <b>2,738</b>              | <b>8,558</b>             | <b>11,297</b>          | <b>8,910</b>                                |
| <b>North Central</b>        |                           |                          |                        |                                             |
| Illinois <sup>3</sup>       | 1,372                     | 407                      | 1,779                  | 1,667                                       |
| Indiana <sup>4</sup>        | 2,933                     | 1,167                    | 4,099                  | 2,413                                       |
| Iowa <sup>5</sup>           | 527                       | 21                       | 548                    | —                                           |
| Michigan <sup>2</sup>       | 8,715                     | 21,195                   | 29,909                 | 6,330                                       |
| Minnesota <sup>2</sup>      | 47                        | 1,970                    | 2,017                  | 8,403                                       |
| Missouri <sup>3</sup>       | 2,381                     | 1,147                    | 3,528                  | 223                                         |
| Ohio <sup>3</sup>           | 14                        | —                        | 14                     | 2,173                                       |
| Wisconsin <sup>6</sup>      | 360                       | 1,589                    | 1,949                  | 8,256                                       |
| <b>Regional Totals</b>      | <b>14,976</b>             | <b>27,088</b>            | <b>42,064</b>          | <b>29,465</b>                               |

| State                     | Hardwood<br>acres planted | Conifer acres<br>planted | Total acres<br>planted | FIA estimated<br>acres planted <sup>9</sup> |
|---------------------------|---------------------------|--------------------------|------------------------|---------------------------------------------|
| <b>Great Plains</b>       |                           |                          |                        |                                             |
| Kansas <sup>2</sup>       | 45                        | 91                       | 136                    | 1,012                                       |
| Nebraska <sup>2</sup>     | 739                       | 2,200                    | 2,939                  | —                                           |
| North Dakota <sup>2</sup> | 63                        | 1,140                    | 1,202                  | —                                           |
| South Dakota <sup>2</sup> | 429                       | 521                      | 950                    | 164                                         |
| <b>Regional Totals</b>    | <b>1,276</b>              | <b>3,952</b>             | <b>5,228</b>           | <b>1,176</b>                                |
| <b>Intermountain</b>      |                           |                          |                        |                                             |
| Arizona <sup>2</sup>      | 9                         | 1                        | 11                     | -                                           |
| Colorado <sup>2</sup>     | 181                       | 240                      | 421                    | 669                                         |
| Idaho <sup>2</sup>        | 116                       | 20,102                   | 20,218                 | 10,016                                      |
| Montana <sup>2</sup>      | 418                       | 1,341                    | 1,760                  | 4,506                                       |
| Nevada <sup>2</sup>       | 5                         | —                        | 5                      | —                                           |
| New Mexico <sup>2</sup>   | 8                         | 98                       | 106                    | —                                           |
| Utah <sup>2</sup>         | 39                        | 13                       | 52                     | —                                           |
| Wyoming                   | —                         | —                        | —                      | 846                                         |
| <b>Regional Totals</b>    | <b>776</b>                | <b>21,796</b>            | <b>22,572</b>          | <b>16,037</b>                               |
| <b>Alaska</b>             |                           |                          |                        |                                             |
| Alaska <sup>2</sup>       | —                         | —                        | —                      | —                                           |
| <b>Pacific Northwest</b>  |                           |                          |                        |                                             |
| Oregon <sup>7</sup>       | 11,761                    | 207,360                  | 219,121                | 118,350                                     |
| Washington <sup>7</sup>   | 624                       | 147,945                  | 148,569                | 96,376                                      |
| <b>Regional Totals</b>    | <b>12,384</b>             | <b>355,305</b>           | <b>367,690</b>         | <b>214,726</b>                              |
| <b>Pacific Southwest</b>  |                           |                          |                        |                                             |
| California <sup>8</sup>   | 162                       | 54,422                   | 54,584                 | 36,986                                      |
| Hawaii <sup>8</sup>       | 23                        | 1                        | 24                     | 568                                         |
| <b>Regional Totals</b>    | <b>185</b>                | <b>54,423</b>            | <b>54,608</b>          | <b>37,554</b>                               |
| <b>TOTALS</b>             | <b>78,416</b>             | <b>2,383,808</b>         | <b>2,462,223</b>       | <b>1,716,192</b>                            |

<sup>1</sup> Acres planted were estimated assuming:

<sup>2</sup> 550 stems/acre.

<sup>3</sup> 435 stems/acre.

<sup>4</sup> 650 stems/acre.

<sup>5</sup> 600 stems/acre.

<sup>6</sup> 800 stems/acre.

<sup>7</sup> 350 stems/acre.

<sup>8</sup> 450 stems/acre.

<sup>9</sup> FIA = Forest Inventory and Analysis; average annual acreage planted estimated for all States on 5-year cycles, except for Alabama, Louisiana, Mississippi, and North Carolina, which are on 7-year cycles, and for Alaska, Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, and Washington, which are on 10-year cycles. Data generated by Andy Hartsell, USDA Forest Service.

## Assumptions

The following assumptions were used in compiling this report.

1. *The number of seedlings reported by the participating forest and conservation nurseries was the number of shippable seedlings produced for distribution in the 2020 planting season (i.e., seedlings that were planted from fall of 2019 through spring of 2020).*

Some species of forest seedlings require two or more growing seasons to reach accepted forest and conservation seedling size standards, so not all seedlings in production at a nursery at any given time are considered shippable (i.e., available for distribution). Therefore, only shippable seedlings were counted.

2. *All seedling production reported in this survey met the grading standards for the respective nurseries (i.e., cull seedlings were not included in the estimates).*

Production estimates are often based on seedbed inventories of seedlings meeting grading standards. For cases in which nurseries ship seedlings by weight, as opposed to examining and counting each seedling, landowners and tree planters often plant every seedling that is shipped to them.

3. *Seedling production data were collected from all the major nurseries that produced forest and conservation tree seedlings for the planting season.*

Considerable effort was made to contact all major producers of forest and conservation seedlings. The universities collecting the survey data reported, with few exceptions, that the major producers were included in the results.

4. *All seedlings reported in this survey were produced for reforestation and conservation projects.*

Some of the nurseries that participated in this survey also produce seedlings for ornamental use, Christmas tree production, or other horticultural purposes. Private nurseries were asked to report only seedling production destined for conservation and reforestation planting.

5. *Forest tree seedlings remain in the general area where they are produced.*

Forest and conservation seedlings are routinely shipped across State borders and at times across international borders. It is assumed that, on average, the number of

seedlings imported into a State is equal to the number of seedlings exported from that State. In some States, a significant number of seedlings are produced in Canada and imported for planting in those States. Estimates of the amount of seedlings shipped from Canada were obtained from Canadian nurseries that routinely export seedlings to the United States.

6. *Dividing the number of seedlings shipped from forest and conservation nurseries by the average number of stems planted per acre in a specific State is an appropriate proxy of the number of acres of trees planted during the planting season.*

These estimations do not include direct seeding or natural forest regeneration activities. Average tree planting densities for each State were provided by FIA.

7. *Respondents to the production survey reported only hardwood and conifer trees produced.*

Nurseries were asked not to include shrubs in their production estimates. Many conservation and restoration plantings include shrubs and herbaceous plants to address wildlife, biodiversity, or other management objectives. Using only tree production to estimate acres planted results in an underestimate of planted acreage where a mixed planting of shrubs and trees occurred.

## Data Trends

More than 1.27 billion forest tree seedlings were planted in the United States in fiscal year (FY) 2020. This production level is a decrease from FY 2019 (table 3).

**Table 3.** Annual forest nursery seedling production in each region for FY 2012 to FY 2020.

| Year    | Total seedling production | West (17 States) | East (20 States) | South (13 States) |
|---------|---------------------------|------------------|------------------|-------------------|
| FY 2020 | 1,274,546,794             | 168,554,874      | 30,846,680       | 1,075,145,240     |
| FY 2019 | 1,302,362,378             | 166,043,690      | 47,691,098       | 1,088,627,590     |
| FY 2018 | 1,187,282,896             | 76,253,776       | 46,667,266       | 1,064,361,854     |
| FY 2017 | 1,284,824,689             | 151,321,764      | 67,595,266       | 1,065,907,659     |
| FY 2016 | 1,260,216,076             | 152,785,327      | 72,314,630       | 1,035,094,369     |
| FY 2015 | 1,302,237,795             | 175,464,446      | 95,417,986       | 1,031,355,363     |
| FY 2014 | 1,217,607,888             | 115,620,820      | 85,684,417       | 1,015,564,370     |
| FY 2013 | 1,181,554,535             | 96,344,063       | 102,066,671      | 983,143,801       |
| FY 2012 | 1,190,552,819             | 170,975,830      | 81,672,547       | 936,918,542       |

FY = fiscal year.

Sources: This report, Haase et al. (2019, 2020), Harper et al. (2013, 2014), Hernández et al. (2015, 2016, 2017, 2018)

In spring 2020, coronavirus pandemic restrictions coincided with lifting season and resulted in an inability of some nurseries to finish lifting seedlings. This decline in seedling production is especially notable in the Eastern States (Pennsylvania, Michigan, and Minnesota). In addition, year-to-year variation is attributed to inconsistent participation from nurseries during data collection and shifting planting needs following wildfires, pests, and harvests. Based on the total number of seedlings shipped and the average number of seedlings planted per acre in each State, more than 2.4 million ac (977,542 ha) of tree seedlings were planted during the fall 2019 through spring 2020 planting season.

### Address correspondence to—

Diane L. Haase, Western Nursery Specialist, U.S. Department of Agriculture, Forest Service, P.O. Box 3623, Portland, OR 97208; email: [diane.haase@usda.gov](mailto:diane.haase@usda.gov); phone: 503–808–2349.

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