



South

# Barriers to Increased Tree Seedling Production in the South



In 2019, the South produced **1.09 billion seedlings**, or 78% of the nation's seedling output. That is enough to cover nearly 2 million acres of land. But it does not come close to meeting the full opportunity to plant on the more than 63 million acres of land that were once forested and are suitable for reforestation.

To better understand this challenge and then develop solutions, American Forests and The Nature Conservancy led a research team that **surveyed and interviewed public, private and tribal nurseries across the country, including 26 in the South, in 2020**. These 26 nurseries represent more than 28% of the region's seedling output. Key regional findings from the research are summarized in this document.

With investments from the public and private sectors over the next decade, **annual production in the region could more than double, to 2.27 billion seedlings**. And at that level, more than half of the land suitable for reforestation in the South could be reforested by 2040. It will take time and resources, but this is an essential step to creating healthy and resilient forests in the region for this and future generations.



# The Barriers

## Factors Limiting Expansion of Production

- 1 market
- 2 financing
- 3 infrastructure
- 4 labor
- 5 land
- 6 seed availability
- 7 water
- 8 lack of desire to expand
- 9 transportation logistics
- 10 fiscal constraints
- 11 management constraints



Systemic barriers need to be addressed in order to increase seedling production and reforestation activities.

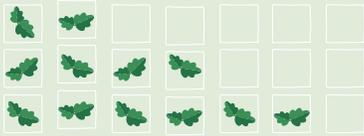
For **public** nurseries surveyed, top concerns were (in order of importance) labor shortages, the need to upgrade infrastructure and a decline in public funding (which impacts ability to expand or even maintain production levels, particularly with regard to staffing).

Among **private** nurseries surveyed, top concerns were (in order of importance) the need for larger and longer contracts to warrant expansion, as well as access to financing and land.



South

## More Regional Context



**Dwindling budgets** have led to lower production and even some nurseries closing, while others say **unclear market demand** keeps them from making major investments.

Despite the scope of land suitable for reforestation in the South, production at some nurseries has declined, with some closing altogether. **From the mid-1990s to mid-2000s, 10 public nurseries closed across the South. A remaining public nursery reported a precipitous decline in annual production, from a high of 200 million seedlings in the 1980s down to 10 million today.** Many public nurseries reported that declining budgets and a lack of staffing contribute to lower output, as does a desire to avoid competition with private nurseries.

Some private nursery managers interviewed suggested that **financing expansion is not a problem as long as the market signals are present.**



JAMES FOGUTH / AMERICAN FORESTS

Nurseries can expand production relatively quickly **if demand materializes and if barriers can be addressed.**

**A full 65% of the reforestation opportunity (41 million acres) across the South is currently in pasture, most of which is on private lands.** Historically, the largest mechanisms driving reforestation of such areas have been timber market demand and Farm Bill incentives (e.g., the Conservation Reserve Program). Income from either would need to be significant to shift large areas of pasture back to forests. Seedling demand would be massive.

Public nurseries are more likely than private nurseries to have idled capacity in the form of fallow bareroot seedbeds, which assuming labor and growing contracts were in place, could quickly be put back into seedling production. **Container seedling production can expand quickly too, as it is done without greenhouses across much of the South.**

**Investments need to be made in the entire reforestation pipeline,** from collecting genetically diverse seeds needed to produce seedlings, to investing in field forestry.



More information is available at [americanforests.org/nurseries](http://americanforests.org/nurseries).

*\*This project was made possible with generous support from the Paul and June Rossetti Foundation and Sant Foundation.*



AMERICAN FORESTS  
- SINCE 1875 -