



# Enhancing a Science-Based Seedling Supply Chain

Recommendations for the upcoming Farm Bill

## TITLE VIII: FORESTRY

### Tree nurseries and seed extractories play a critical role in supplying the seeds and seedlings needed to bolster forest carbon sinks.

To meet ambitious reforestation targets by 2040, we'll need to more than double annual seedling production.<sup>1</sup> Reforestation involves more than just planting and depends on several key steps: Tree seeds must be collected, stored and transported safely, and cultivated by nurseries into young saplings before touching the forest floor. These steps require specialized treatment depending on tree species, regional ecosystem needs, and climate. To ensure that producers and forest landowners can replant and remove carbon at scale, we must bolster each step in the seed and seedling supply chain.

#### SEEDLING SUPPLY CHALLENGES

- A national seedling shortage hinders reforestation efforts, especially as wildfires ramp up replanting needs.
- Climate change and diverse ecosystem needs make it difficult to develop universal protocols for seed sourcing and seedling cultivation.
- Seed extractories and tree nurseries do not have the capacity or workforce to meet replanting targets.

#### THE FARM BILL OPPORTUNITY

- Invest in private tree nurseries to ensure that seedling supply meets replanting demand.
- Center climate science, economic research, and regional landscape analyses into seed sourcing and seedling cultivation.
- Expand and develop an expert workforce to carry out specialized seed, seedling, and genetic resource conservation.

*Root existing forestry programs in the latest science and economic research to support nursery capacity expansion and seed collection activities.*

The national seedling shortage has illuminated the critical role that tree nurseries and seed extractories play in supplying the young trees required to restore forests at scale.<sup>2</sup> Through the Farm Bill, Congress can improve science and

research integration into programs that already support state seed sourcing, seedling cultivation, and genetic resource management to maximize their impact and address the national seedling shortage.

- **Integrate the best available research to guide the Forest Stewardship Program’s Rural Forestry Assistance Program (RFA) and Reforestation, Nurseries, and Genetic Resources (RNGR) programs.** RFA should utilize the latest climate science and economic research to identify priority areas for enhanced nursery and seed sourcing activities.
- **Prioritize climate-focused genetic work that centers climate-resilient and regionally appropriate tree species across different ecologies and climates.** For example, selective breeding can focus on traits for resistance to drought, fire, and other severe disturbances.
- **Include workforce development as a form of technical assistance delivery under RNGR** to ensure that state nurseries and seed extractories are well-staffed and create high-quality career pathways.

<sup>1</sup> Challenges to the Reforestation Pipeline in the United States, Fargione et al.

<sup>2</sup> Ramping up Reforestation in the United States: A Guide for Policymakers, American Forests

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