

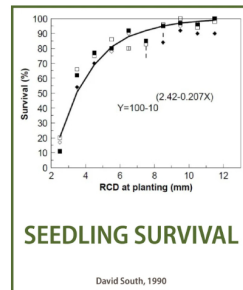


Good seedling quality is one of the components of a successful forest regeneration project.

ArborGen is unique in the nursery business as the only company with a Seedling Quality Assessment (SQA) program that includes seedling quality measurements we take at each nursery and quality measurements taken by the Auburn University Southern Forest Nursery Management Cooperative. Seedling quality is critical because a high-quality seedling will survive prolonged periods of environmental stress and grow well following out-planting. While there have been many definitions of seedling quality over the years, at ArborGen, we follow the bareroot specifications detailed in this graphic from Auburn University Southern Forest Nursery Management Cooperative. We produce seedlings with a woody stem, secondary needles (in bundles), and a 10 to 12-inch top. We also specify a 6-inch tap root with preferably eight or more primary lateral roots, an average root collar diameter (RCD) of 5mm or more, and a seedling free from the incidence of insects and disease. These specifications produce seedlings that work well for hand or machine planting operations. Our container seedlings have similar specifications, with the critical differences from bareroot being that the root length is limited to the size of the container, and container seedlings have a slightly smaller target RCD of 4 mm.

What is our process for assessing seedling quality and health?

Our commitment to seedling quality is evident in the significant resources we invest in our SQA program, making it a top priority at every ArborGen nursery. Our nursery teams diligently monitor seedling health, growth, soil moisture, and fertility to ensure the production of top-quality seedlings. The ArborGen Product Development Seedling Quality Team provides an independent, second set of eyes, scrutinizing the quality of seedlings at every nursery. We meticulously track seedling growth throughout the growing season, comparing the current season's growth with previous seasons and the nursery teams' results. This ensures that seedlings grow at the rates necessary to achieve the proper shoot and root dimensions at lifting. In December, our Product Development Team lifts and measures seedling height, diameter, and root length, and counts root numbers to determine the tree percentage that meets our specifications. We also send seedlings to Auburn University for a third independent seedling quality assessment, where they measure many of the same traits and calculate the root weight ratio.



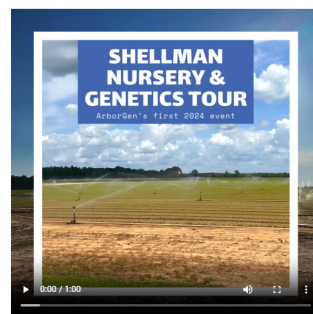
Why do we emphasize seedling root collar diameter in our assessments?

A sound root system is vital to seedling survival. It is like the foundation of a house. It supports everything that is going on above ground. A sound root system will quickly generate new roots at the planting time. When spring arrives, these new roots are necessary, and the seedling starts new top growth. Without a sound root system, there is not enough water and nutrient uptake to support the new top growth, and the seedling is prone to a slow start or may even suffer top dieback. Root collar diameter (RCD) is directly related to root mass. So, by monitoring our seedling RCD, we indirectly monitor root system development. Several research studies have shown a positive link between seedling caliper and bareroot seedling survival, like the provided chart from David South. Factors such as the quality of site preparation, planting date, planting quality, and weather also affect survival beyond RCD.

Whether you are purchasing our advanced genetic seedlings such as MCP® or Open Pollinated (OP) seedlings, rest assured of ArborGen's unwavering commitment to delivering the highest quality seedlings available in the market. Our dedication to quality is not just a promise, but a guarantee that we uphold in every seedling we produce.

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ArborGen Shellman Nursery & Genetics Tour



Thank you to everyone who attended the ArborGen Shellman Nursery and Genetics Tour. We enjoyed seeing familiar faces and meeting many new ones.

This tour offered an excellent opportunity for forest landowners and forest operators to share experiences from multiple angles, sharpen their skills, and learn firsthand about new options for their tracts. Without a doubt, the friendly environment provided by the entire Shellman team made the difference for more effective and impactful take-home messages.

The Shellman Nursery & Genetics Tour was one of the most successful tours ever held by ArborGen. We look forward to hosting more events this year across our many locations. Stay tuned for events in your area. Click on the video to watch a recap of the days events.

The American Landowner Podcast Featuring Dr. Paul Jeffreys

This episode of The American Landowner podcast features Dr. Paul Jeffreys from ArborGen. Paul discusses the importance of selecting the proper pine tree seedlings for reforestation projects. He talks about factors like climate, soil type, and intended use. Paul also explains how improved genetics have led to faster growth while maintaining wood quality. Landowners learn about best practices like proper site preparation and planting density to maximize returns. Paul is passionate about assisting landowners and being involved throughout the life of their stands. He encourages working with a consulting forester and seeing reforestation as an investment for future generations.

[Listen To The Podcast](#)



Comparing the Pros and Cons of Different Pine Tree Seedlings

by The American Landowner with Dr. Paul Jeffreys

Client Results



25' MCP® at 5 years
Abbeville, Alabama



OP-Select at 2 years
Midway, Georgia

[See More Client Results](#)

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