

A New Service for Coop Members: “Seedlings Quality Evaluation”

Tom Starkey

Southern Forest Nursery
Management Cooperative
Auburn University



A little history

- The Oregon Coop has for years provided a seedling quality evaluation.
- The SFNMC has not been able to help in this area due to Auburn University restrictions.
- The AU Forest Health Cooperative has found a way to provide a service for their membership which we have adapted to provide our membership with Seedling Quality Service.
- In 2014 we worked with several nurseries to develop a functional procedure for this assessment service

The Nuts and Bolts

- Starting this Fall (limited). January, 2015 for all nurseries (conifers only)
- Price - \$35/Bareroot sample/submission
 \$40/Container sample/submission
- Each report is based upon our measuring of 30 seedlings. 1 Report = 30 Seedlings = \$35/\$40
- A "Sample Submission Form" should be filled in for each seedling sample (group of 30 seedlings).

The Nuts and Bolts

- Sample at least 4 groups of 10 seedlings (more is fine, we still randomly choose 30).
- You must decide if you sample seedlings from only inside drills or include the larger seedlings in outside drills.
- If you decide to include outside drills, one suggestion is to only sample 10 seedlings from outside drills and then 30 from inside drills (2,4,6). We will still randomly choose 30 seedlings if 40 are sent in.

The Nuts and Bolts

- Ship seedlings that are dry – do not use ice
- Place each group (sample) in a clearly labeled bag
- Multiple samples can be shipped in a box, just be sure to identify each group. Include all submission forms in the box with the seedlings
- Ship so they arrive in 2 days (ex. 2-day Air UPS)
- Do not ship on a Thursday or a Friday

The Nuts and Bolts

- Send me an email when shipping with method of shipping (Fed Exp or UPS) – If you don't your seedling may sit unnoticed in a storage room
- We will send an invoice at season end for all your samples.
- Ship to:

Tom Starkey
School of Forestry & Wildlife
602 Duncan Dr
Auburn University, AL 36849

334-844-8069

The Nuts and Bolts

- Our ability to provide this evaluation in a timely manner is dependent upon completion of other Coop research seedling evaluation
- **Bareroot Seedlings:**
 - After January 1st
 - Not limited on number of samples
 - If you know ahead of time, let us know approximate number and time of submission
 - \$35/sample
- **Container Seedlings:**
 - After January – no problem
 - Before January , **ONLY** by prior arrangement and **agreement on time to ship**
 - \$40/sample

Submission Form & 2 Page Report

Seedling Quality Submission Form

Contact Information

Dated Submitted _____

Name: _____

Email: _____

Nursery Location _____

Company _____

Also send a copy of report to: _____

Sample Information: (Fill in completely for each sample)

Sample Identification Number (6 Characters or less) _____

Species (circle one): Loblolly Slash Longleaf Sand other _____

Stock Type (circle one) Bareroot Container

Province:

Coastal _____
Upper Coastal _____
Piedmont _____

Genetics:

2nd Gen _____
3rd Gen _____
Advanced _____

Lifted by (circle one) hand machine

Other Information _____

Southern Forest Nursery Management Cooperative
School of Forestry & Wildlife
602 Duncan Drive
Auburn University, AL 36849



Auburn University Southern Forest Nursery Management Cooperative Seedling Evaluation Report

1/15/2015

AR-G334S

Company: Forest Tree Nursery
Contact: Jim Simpson
Nursery/State: Arkansas

Species: Loblolly
Stock: Bareroot
Source: Piedmont
Genotype: Adv
Hand or Machine Lifted: Hand

Measure of Central Tendency

Average Height (in)	10.64
Average RCD (mm)	4.63
Median Height (in)	10.63
Median RCD (mm)	4.69

Measure of Spread (Dispersion)

95% Confidence Interval for RCD	4.63	±	0.25
98% Confidence Interval for RCD	4.63	±	0.30
Standard Deviation of Height	2.03		
Standard Deviation of RCD	0.70		
Coefficient of Variation of Height	8%		
Coefficient of Variation of RCD	15%		
Range (maximum - minimum) of Height (in)	3.90		
Range (maximum - minimum) of RCD (mm)	3.02		

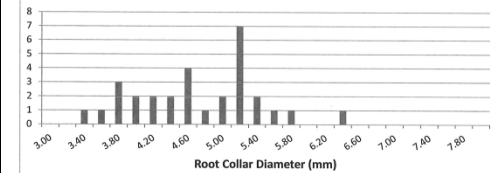
Ratio

Root Weight Ratio	19.6%
Height:Diameter Ratio	60
Top Dry Weight (g)	3.86
Root Dry Weight (g)	0.94

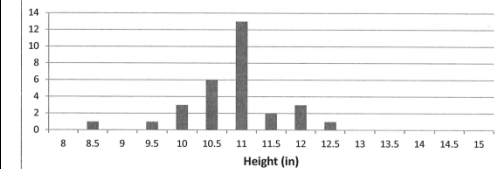
Sample # AR-G334S

PAGE 2

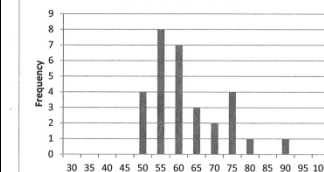
RCD Frequency



Height Frequency



Height:Diameter Ratio (Height (mm): RCD(mm))



H:D is a ratio of sturdiness
Height (mm):RCD (mm)
A high ratio = "spindly"
A low ratio = "stouter"

Example

RCD (mm)	Ht (in)	H:D Ratio
4.5	10	56
5	10	51
4.5	12	68
5	12	61
4.5	14	79
5	14	71