



IFCO

INTERNATIONAL FOREST CO.

3rd Biennial Shortleaf Pine Conference
The Return of An American Forest Legacy
“Shortleaf Seedling Production and Quality
Seedlings”

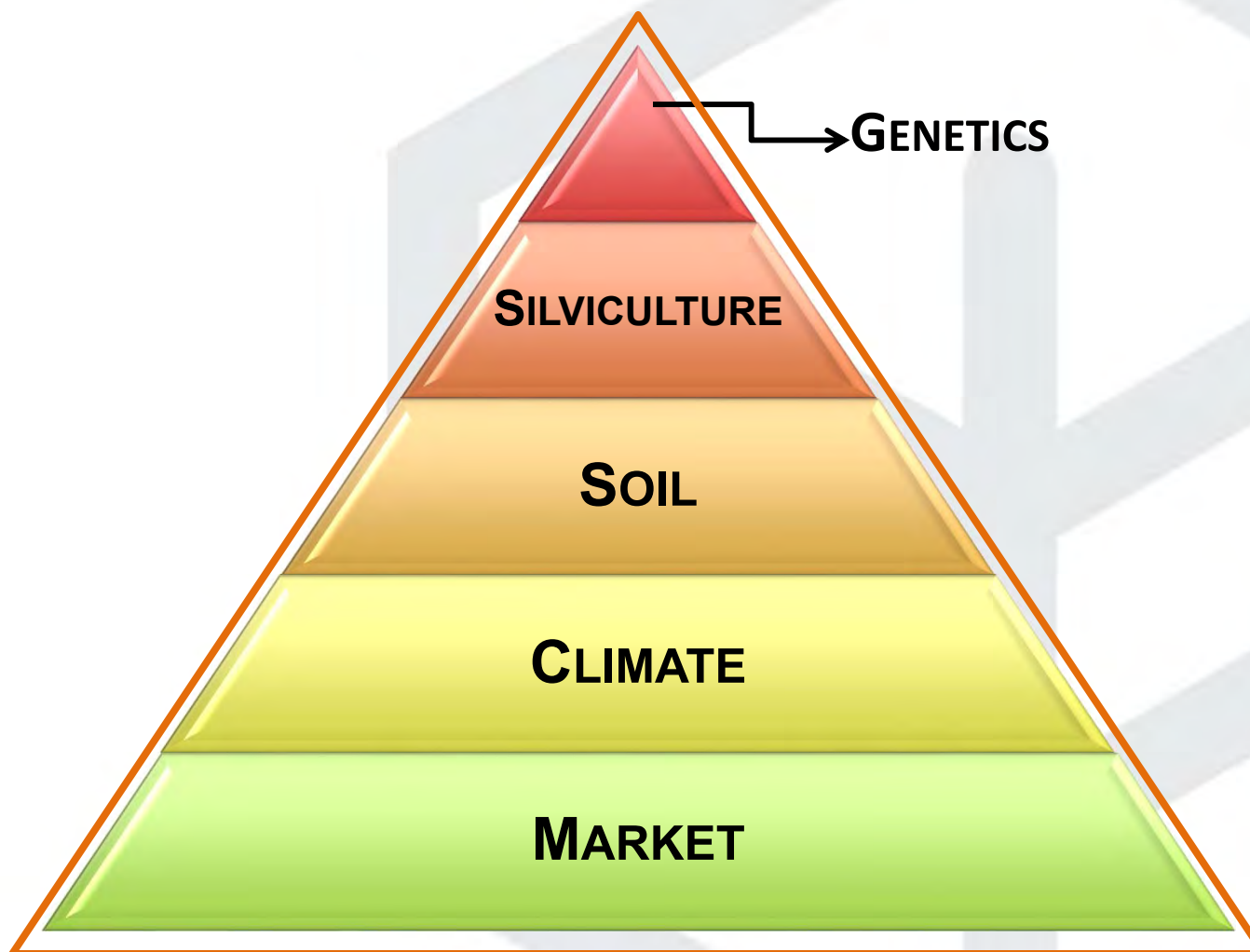
Who is IFCO?

Oldest and Largest Producer of Containerized Seedlings

- 32 years of container seedling growing experience
- Over 84 million seedlings grown in 2015
- Longleaf, Loblolly, Slash, Shortleaf and Virginia Pine
- Wiregrass and other native species



The Decision Pyramid[©]



Research Cooperatives

- NC State Tree Improvement Program (Genetic Improvement)
- NCSU/ VA Tech Forest Productivity Cooperative (Silviculture)
- Western Gulf Forest Tree Improvement (Genetic Improvement)
- University of Georgia – PMRC (Silviculture)
- Auburn Southern Forestry Nursery Cooperative (Nursery)
- Forest Pest Management Coop (Pest Management)
- U. of FL-Cooperative Forest Genetics Research Program (CFGRP)

Container Nursery

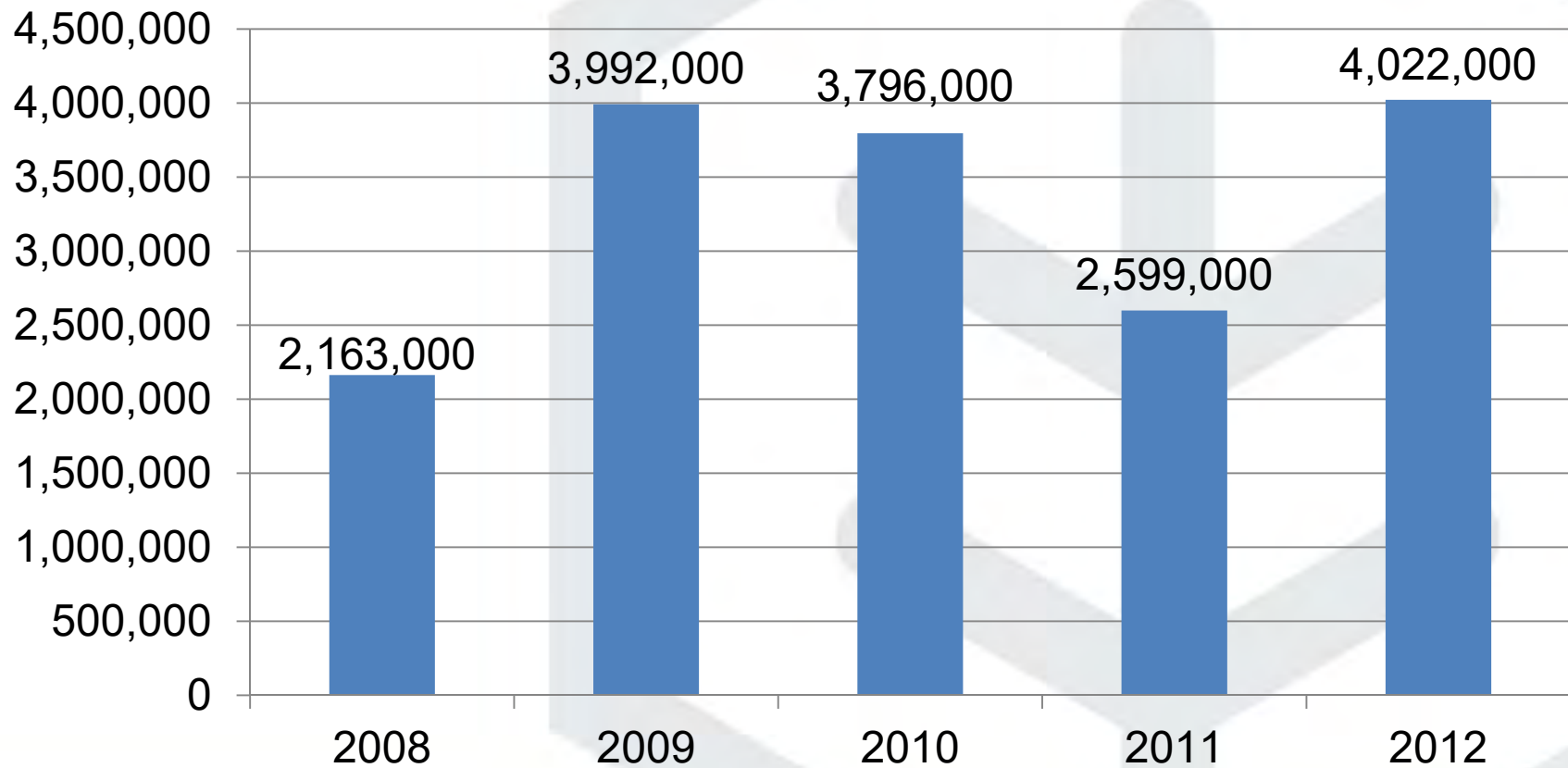


Shortleaf Production in Late Summer



Shortleaf Production Numbers South wide

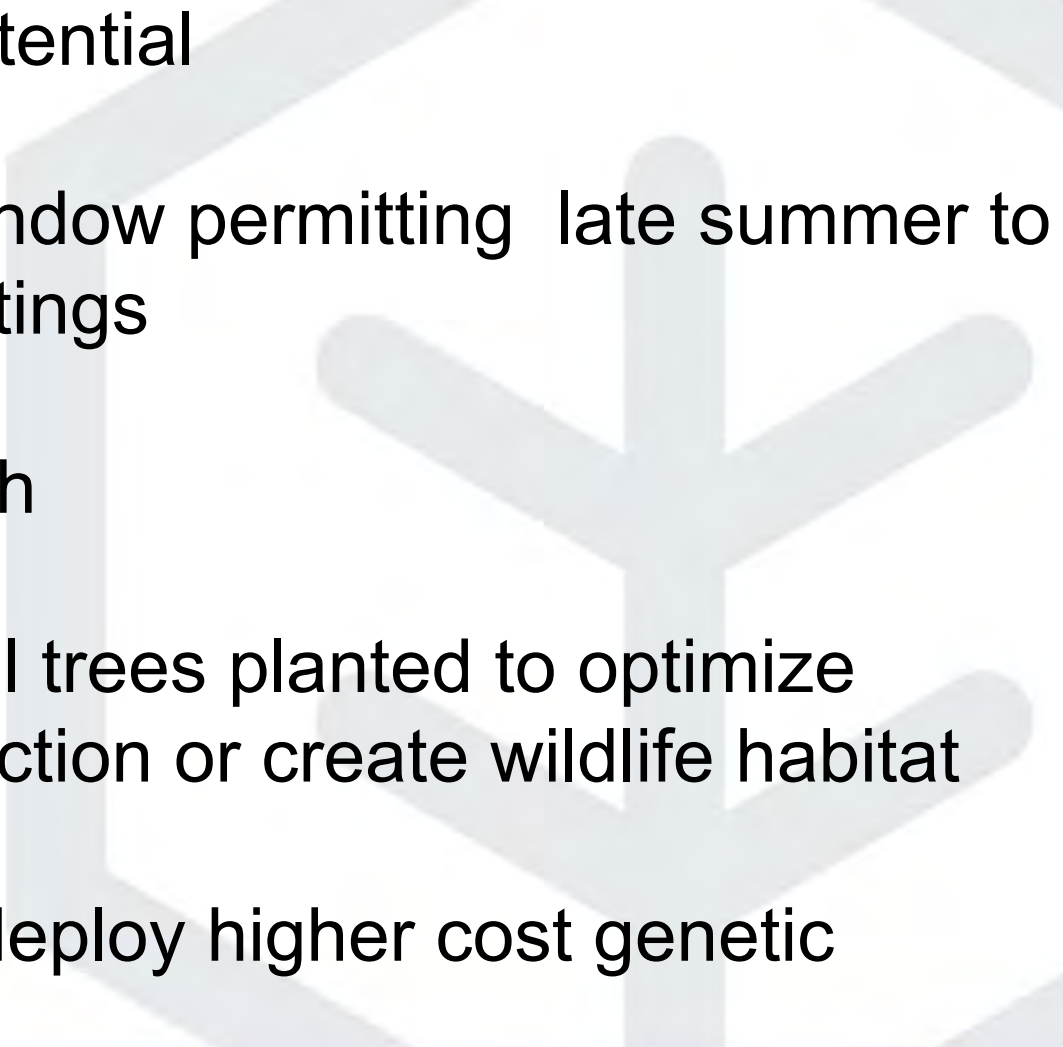
Production



International Forest Company Historical Container Shortleaf Production



The observed rapid increase in container seedling production is being driven by:

- High survival potential
 - Wide planting window permitting late summer to early spring plantings
 - Increased growth
 - Lowering of initial trees planted to optimize sawtimber production or create wildlife habitat
 - Efficient way to deploy higher cost genetic selections
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Concept of a target seedling



- Height of 10-12 inches
- Root Collar Diameter of 4.0 MM or greater
- Root shoot ratio of .40 or greater by dry weight.
- Firm root system with
- Root volume of 5.5 cubic inches or better

Shortleaf Pine Seedlings



Container Sizes and Quality Specifications

- **Common standards**

- Growing Density 120S 49 per square foot, 3.4 in. length, 1.6 in. diameter.
- Growing Density 135 53 per square foot, 5.0 in. length, 1.6 in. diameter.
- Growing Density 128 51.5 per square foot 4.75 in. length 1.5 diameter.
- Seedlings per box 300
- Culls No more than 5 per box
- No presence of pests Seedlings insect & disease free
- Packing liner Boxes contain a 1 mil plastic liner
- Fully developed roots containing mycorrhizae that hold together

Average No. of Roots and Root Weight including tap root
after 5 months

Container	Av. Total Number of Roots	Total Root Weights
Bareroot	20	3.5
Container A	64	6.1
IFCO 128	82	7.7
Container B	82	5.3
Container C	71	6.3

Packaged Seedlings



IFCO Seed Sources

- All Seedlings are from Improved Seed Orchards and limited OP families
- Seed Sources Available
 - Virginia
 - North Carolina
 - Georgia
 - Arkansas
 - Texas



One Year Old- but



Example from the Field

**3 year-old
Containerized
Planting - USFS**



Prices

	Price/Acre
Shortleaf Container Improved	\$72.50
Bareroot Improved	\$30.00

Based on 500 trees per acre.

Keys to Be Successful

- Order seedlings by Jan. 31 to have seedlings for the planting season next fall or winter.
- Know and keep up with the seed source you plant.
- Plant seedlings early and deep to insure good survival.
- Do your chemical site preparation in June through early August.
- **PLANNING IS ESSENTIAL!**



**NOT ALL SEEDLINGS
ARE CREATED EQUAL.**

VISIT US ONLINE OR AT OUR BOOTH
INTERNATIONALFOREST.CO