**Ordering Seedlings**

Once the species has been decided upon, order the seedlings from either a state or private nursery. Plan ahead to allow for adequate time for site preparation and to insure availability of seedlings. The Georgia Forestry Commission begins taking applications for seedling orders on July 1 for the following planting season.

Several decisions must be made before ordering seedlings, such as number of seedlings and delivery date. The following steps will help determine the number of seedlings to order.

1. **Determine the Acreage of field** by actual field measurement or estimates from maps or other records.

2. **Determine spacing of seedlings**. Most pine plantations are established with 600 to 700 seedlings per acre. A minimum of 600 seedlings per acre may be required for participation in some federal assistance programs. Research has proved that 600 to 700 planted trees per acre is best for landowners that are managing for multiple products, such as pulpwood, chip-n-saw, sawtimber, and poles. Seedlings are planted at different spacings to achieve the desired density. Wider spacing is sometimes used for better stand access for fire control and harvesting equipment.

3. **Determine the number of seedlings required** for any spacing by using this formula: 43,560/desired spacing = number of seedlings per acre

 Number of acres to be planted X number of seedlings = total number of seedlings

a. Multiply desired spacing in feet and divide that product into the number of square feet per acre.

b. For example, how many seedlings would be needed to plant 12 acres with a spacing of 6 X 12 feet?

 6 feet X 12 feet = 72 square feet

 43,560 square feet per acre / 72 square feet = 605 seedlings per acre

 605 X 12 = 7260 total seedlings needed

c. Making allowance for cull seedlings. Often times some seedlings will have to be culled because they are too small or damaged during shipping. A 10% cull factor is usually used and is added to the total number of seedlings needed.

 10% cull factor: 7260 total seedlings X .10 = 726

 726 + 7260 = 7986 seedlings needed to plant **or**

10% cull factor: 7260 total seedlings X 1.1 = 7986 seedlings needed to plant

Note: The number to be ordered should be rounded up to the nearest whole thousand because seedlings are shipped in bundles of one thousand.

8000 seedlings should be ordered.

**Practice Problem**:

Mr. Ima Forester has 350 acres of land that he wants to plant with the assistance of CRP (Conservation Reserve Program). The CRP will pay 70% of the cost of the seedlings. Mr. Forester lives on the Coastal Plain of Georgia and has determined he is wants to plant Georgia Giants, a species of Loblolly Pine. The price per thousand is $75. Mr. Forester is going to use a 5’ x 10’ spacing with a 10% cull factor. How much will the seedlings cost him after he receives the CRP payment?

1. **Determine the Acreage of field:** 350 A
2. **Determine spacing** : 5’ x 10’ spacing
3. **Determine the number of seedlings required**
	1. 43,560 sq ft per A / 5’ x 10’ = 871.2 or 871 seedlings per acre (truncate, do not round)
	2. 350 A x 871 s/A = 304,850 seedlings needed
	3. 10% cull factor: 304,850 seedlings X 1.1 = 335,335 (O↑M)(round up to next thousand)

336M seedlings to order.

1. **Determine the cost of the seedlings**
	1. 336M seedlings X $75/M = $25,200
	2. Mr. Forester’s cost = 30%
	3. $25,200 X .30 = $7560 – cost to Mr. Forester

A couple of notes:

1. Be sure to understand what is being asked. “How many seedlings are required to plant…?” is different than, “How many seedlings will need to be ordered?” **Read the question carefully!**
2. If you are **ordering** seedlings, a cull factor will be given. When using a cull factor, always **round up** to the next thousand. M is the Roman numeral for one thousand (thus MBF is “thousand board feet”). I use the following symbols for “round up to the nearest thousand” - O🡩M
3. There are 43,560 ft2 in one acre.
4. Other costs could be encountered such as cost to plant (on a per seedling basis, per thousand seedling basis, or a cost per acre). Again, **read the question carefully**!