

COST OF PRODUCING IMPROVED SEEDLING
IN RELATION TO REGULAR STOCK

PROBLEMS

W. D. McNeel (Panel Moderator)
Mississippi Forestry Commission, Jackson, Mississippi

Messrs. Cloud and Gehron have covered the cost and techniques in relation to growing regular stock versus improved stock.

I have agreed to discuss problems. When I started thinking on this subject, I realized that there is not much difference in the problems in growing improved stock than that of regular stock. The problems, however, increase in magnitude. This does not only apply to improved stock, but to special grown stock. Example: a planter desires seedlings with extra large root collar diameter. This requires, for one thing, planting for thinner density.

Some of the problems which the nurseryman is confronted with are:

1. The quality of seed
 - a. History of collection, handling and storage
 - b. Germination and other related information - seed test
2. The soil management practices needed
 - a. Soil analysis
 - b. Soil amendments
3. The use of herbicides, fumigants and weed control
4. The size of seedling desired by each individual planter
5. The method required to lift seedlings
6. The method of packing and shipping seedlings
7. The number and size of lots of seed.
8. The bed area required.

1/ Panel presentation. Papers of panel participants are included.

I will discuss briefly the last two problems. These two problems will effect all of the other six problems.

This year, we planted ten (10) different lots of slash seedlings for one (1) planter. It required thirty minutes to change over from one (1) lot to another. These thirty minutes cost us a total of \$64.30 for labor. The nurseryman and assistant nurseryman's time and equipment is not included in this figure, which would probably double this cost. All of these lots were small. When planting larger lots, the planter is ordinarily far ahead of other operations. There is not much loss time in changing over from one (1) lot to another.

When we reduce the number of seedlings per square foot, a greater area of bed space is required for a given number of seedlings. It requires about the same amount of labor, materials, chemical and management time to produce 28 per square foot. Therefore, the planter should expect to have to pay more for seedlings grown at a low density. The following figures will illustrate how density will effect the number of seedlings that can be produced per acre.

| | | |
|--------------------------|---|-------------------|
| 32 seedlings per sq. ft. | = | 922,000 seedlings |
| 28 seedlings per sq. ft. | = | 807,000 seedlings |
| 25 seedlings per sq. ft. | = | 720,000 seedlings |
| 20 seedlings per sq. ft. | = | 576,000 seedlings |
| 15 seedlings per sq. ft. | = | 432,000 seedlings |
| 10 seedlings per sq. ft. | = | 288,000 seedlings |
| 5 seedlings per sq. ft. | = | 144,000 seedlings |