Abstract--The small grower cannot afford costly facilities, equipment, or containers. The grower usually does about everything by hand and gets help from family members and friends to get started. I describe the approach I use to produce longleaf pine container stock.

INTRODUCTION

There are many decisions that have to be made when a small grower decides to venture into the production of longleaf pine container stock. A major one is how to market the seedlings. One this issue is resolved; decisions must be made about facilities, containers, seeds, and growing methodology.

SEED

I try to get longleaf pine seeds with at least 80 percent viability so that I single sow in the trays. I soak in benomyl for twelve hours before planting and then stratify by putting into a refrigerator for a week.

DEVELOPING FACILITIES AND GROWING TECHNIQUES

One of the first decisions that must be made is the type of containers that will be used. Generally, two types are available-- styroform and plastic. I decided to use styroform trays because they are less expensive to buy and they can be used with inexpensive tables. One advantage of the plastic trays is that the root plugs are easier to extract.

I buy a premixed growing medium because I cannot afford a soil mixer and specify that the pH should be between 5.0 and 5.5. Osmocote slow-release fertilizer is added to the medium to limit the amount of fertilization must be added with the watering system during the growing period.

The trays are filled by hand, but wet the medium before use. A small operation cannot afford tray filler. The seeds are planted by hand, also. I replant cavities without a germinating seed within 14 to 20 days.

A stake-type irrigation system is sufficient. You must be sure that the irrigation pattern is uniform and overlaps. I use an existing well to provide irrigation water and use phosphoric acid to lower the pH to about 5.0. I do this to prevent the pH of the medium rising and making the seedlings more susceptible to disease.

A two-gallon sprayer is the economical choice for applying fungicides. I spray fungicides every week for the first two months. After that, I spray every two weeks or as needed.

Additional fertilizers are applied using a siphon that connects to a water hose. This is an efficient technique.

Stay in close contact with the local county agent or state container specialist to get help and advice with problems that are encountered.

Harvest the seedlings and box yourself because hiring outside labor is expensive.

CONCLUSIONS

I hope that I have been helpful in providing information on the practices of the small grower. A small grower needs to have all the trees sold before he plants. Such a grower can cater to local people's needs with more efficiency by providing fresh trees and insuring that they are of high quality.

Though these methods the small grower can compete with the medium to large growers. Growing pine seedlings is not a fast way to make money. It takes two to three years to show a profit with good crops.