

## "FOREST INDUSTRY NURSERY REVIEW"

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Our general operation for the production of 1-0 loblolly pine seedlings is quite similar, I'm sure, to the operations of many of you in attendance here today.

The Woodlands Division of Continental Forest Industries, Hopewell, Virginia, operates the only industrial loblolly pine seedling Nursery in Virginia. The Nursery has been in production continuously since the spring of 1959 when the first crop was sown. To date, twenty crops, of approximately twelve million seedlings each year, have been produced.

The Nursery is located on the south side of Route # 10, about 1½ miles east of Route # 1 near Chester, Virginia. The seventy-five acres of land, within the Nursery boundaries, are set aside as follows: twenty-two acres in permanent seed beds, forty-five acres in seed orchard, roads, fields, and offices, eight acres are in woodland. The seed bed area is divided into four 6 acre blocks. The site was selected because it contained suitable soils and water quality for Nursery management and because of its central location to the nine forest areas being operated by the Hopewell Woodlands District. Feel free to visit us after our Conference - please let me know if you are interested. Printed directions will be available and I will arrange to meet any visitors at the site on the day of your choosing.

Abstract.--The information which is assessed herein is more or less apparent with the Industrial Forest Tree Nurseryman in the Southeast United States and those of Federally or State owned operations.

Cooperation between industrial and public Nurseries over the years has always been of the highest order. The purpose for compiling these data is to describe more fully the place we, as Industrial Nurserymen, fill in our working situations.

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## DISCUSSION

From our company's standpoint a few points need to be mentioned, which are advantageous, and will need expansion:

1. We have built-in "family type" connections and close communications. With the advent of 2-way radio communications we augment our telephone seedling orders en route to other locations and projects.
2. Problems, which inevitably arise, are soon overcome since communication is so close.
3. We are not involved with an exchange of funds when seedlings are picked up at the Nursery.
4. Improved changes or changes made for the sake of better efficiency are speedily inaugurated.
5. Supply and pickups due to unusual weather can be adjusted rapidly. We can store seedlings for an area, if needed; and they can pick up the reserved lot again as conditions improve.
6. We do not have to supply various amounts of different species to a large number of consumers, some located in remote corners of the state.
7. Many problem-solving experiences are expedited on the spot because the chain-of-command is not lengthy.
8. Trade-offs of labor between the Nursery and planting crew are rather easily done with little lost time in the trade process.

Results of a questionnaire sent in mid-winter to a number of industrial Nurseries will be commented on at this time.

## SUMMARY OF QUESTIONNAIRE

Questionnaire results and comments-seven industrial Nurseries contacted.

1

BALE OR BAG SEEDLINGS?

Five of seven Nurseries responded as baling seedlings.

This part of the Nursery operation is most probably predicated on the aspect of temperature control from lifting to field planting. Generally, those bagging seedlings can control the temperature, or keep cool, the bags from day of bagging to actual field planting.

All factors considered, the handling of seedlings in bales is preferred to maintain a healthy, transplantable seedling in transit or under varying conditions of storage.

## 2

### PROMOTE GIVEAWAY SEEDLING?

Most Nurseries do not actually promote free seedlings.

Farm groups, science groups and tour groups receive attention in this regard. Our company honors requests on a first-come, first-serve basis and has made available over 10 million free trees since our first production year in 1959.

## 3

### DO YOUR UNITS OR AREAS EVER RUN OUT OF SEEDLINGS DUE TO NURSERY OPERATIONS?

Almost  $\frac{1}{2}$  of those Nurseries queried said "yes" to this question.

Surprising as it may seem, weather and a slow down in pulling of seedlings were equally to blame for this problem.

When one considers that such an occurrence would be remote, still it may often be the case that field plantings occur on such diverse sites versus an extremely wet Nursery site that the last million or so seedlings the Nurseryman has on hand will be on a difficult site from which to lift seedlings.

## 4

### ARE YOU CENTRALLY LOCATED TO MOST OF YOUR PLANTING SITES?

All Nurserymen answered in the affirmative to this question.

Location of Nursery properties has this as a prime requisite for ease of control and to keep travel to a minimum for all areas or units.

5

IS THERE GREAT COMPETITION FOR LABOR BETWEEN YOUR OPERATION AND THE  
NEAREST PUBLIC NURSERY?

All Nurserymen answered "no" to this question.

Historically, industrial and public Nurseries have not been overly competitive in this area, mainly because equal work under similar conditions pays equal wages. Also, the very nature of the managers involved will preclude most "cut-throat" dealings in wages, pay scales, or hiring practices.

6

IS THE TEMPERATURE CONTROLLED FOR STORAGE OF YOUR SEEDLINGS BOTH AT THE  
NURSERY AND NEAR THE ACTUAL PLANTATION SITE?

Most answers received to this question were "no".

Some replies qualified their response on grounds that the Nursery controlled the temperature of baled or bagged seedlings, but that once out of the control of the Nursery no provisions were made to keep seedlings from heating or freezing. The same cooling unit will prevent either problem. Bagged seedlings are extremely susceptible to overheating especially if bags are crammed with too many seedlings. Bales will fare better even in excessively cold conditions but for outside storage should be covered with a minimum of protection - i.e., plastic, canvas, pine boughs and/or sheet insulation.

7

DOES YOUR TREE IMPROVEMENT PROGRAM MESH WELL WITH YOUR OVERALL OPERATIONS?

All respondents replied "yes" to this question.

Assuming that labor supplies and equipment for both orchards and Nursery work originate from the same base, this can be a happy blend of two highly related operations. In fact, in no other area of woodlands operations is there a better opportunity to exhibit cooperation. Oftentimes, the Nursery Supervisor is a breed of both operations either by longevity, training or both.

IS THE TREND UPWARD FOR NURSERY PRODUCTION?

Most replies were in the affirmative but only slightly. One Nursery commented that they were stabilized at a certain figure. I would assume that this would also be the case for at least some other Nurseries. Probably most cutting and site preparation schedules are fairly constant as to acreage needed yearly and it would follow that areas ready to receive seedlings yearly would remain constant. Also, most Nursery capacities remain constant due to an array of reasons; best known to each company and their policies.

The species grown most was far and away loblolly pine. Slash and Virginia Pine were a poor second with various water-complex oaks and sycamore a poor third.

An additional comment on loblolly will conclude my remarks on the questionnaire.

Loblolly pine is so unexcelled in its range, growth rate, logging acceptability and market demands that it is indisputably the champion economically useful species for our region. A substitute for this species would be difficult, if not impossible, to find.

CONCLUSIONS

Personally, I feel the private and public Nursery operations of all of our southern states works well - cooperation has been more than adequate and we need each other. With improved seed, improved techniques, mechanization and better communication, all Nurseries are entering the period of the eighties with greater optimism and know-how and with the greatest challenge to supply more and better seedlings than history can record to date. Additionally, the third century of our country's life and involvement in all phases of ecological needs require our expertise and full attention.

All of us here surely have a responsibility few of us dreamed of some years

back. It is through the interplay of ideas received here, at past meetings, as well as subsequent meetings down the road that we can continue to be, both public and private, the best and most knowledgeable Forest Tree Nurserymen our country has known.