

CONTAINER BOOM IN THE NORTHWEST 1/

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Abstract.--The Northwest has jumped into containers with both feet. Production has expanded exponentially. Container grown seedlings are filling the void created by the failure of aerial seeding as a viable option. We are having "growing pains" at present but the container concept is here to stay.

INTRODUCTION

When I saw I was cleanup man on this panel, I knew I had my work cut out for me. What could I say that had not already been said as well or better before. The best bet is to let the data speak for me. (Table 1) Thus, my talk can be mercifully brief.

Table 1.--Nursery Numbers, Production, and Capacity

Item	1964	1973
Number of nurseries	7	44
Capacity over 2 MM/Yr	6	24
Container operations	0	22
Production: Container	0	22
Bare-root	44	159
Capacity: Container	0	47
Bare-root	45	206

Ten years ago there were seven forest seedling nurseries in Oregon and Washington. Four were public, three private. Today there are 44--seven public, the balance private. Of these, 22 are container operations. Additional nursery capacity exists in British Columbia, California, and Idaho.

1/ Paper presented at North American Containerized Forest Tree Seedling Symposium, Denver, Colorado, August 26-29, 1974.

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The nurseries producing over 2 million seedlings per year are the ones making a significant contribution to the northwest reforestation effort. The smaller nurseries are usually specialized operations. Some are used in research and tree improvement programs; others cater to the Christmas tree trade; and the rest serve only a few customers, or are wholly owned subsidiaries of individual forest companies with modest needs. The forest industry needs planting stock now, and a private nursery industry is expanding to meet this need. Much of this effort is in container operations. The expansion of container production is exponential, as these figures for Oregon and Washington show:

1970	0.9 million
1971	2.9 million
1972	9.8 million
1973	22.4 million
1974	41.8 million (estimate based on a June 1974 survey)

BACKGROUND

Why is this happening? What brought it about? A combination of factors are responsible. Again, figures supply a part of the answer.

Table 2.--Planting and Seeding in Oregon and Washington on private, State and Federal lands (M Acres)

Year	Seeded	Planted	Total
1953	9.3	44.8	54.1
1963	70.4	89.1	159.5
1973	50.4	275.2	325.6

You will note that seeding (mostly aerial) has played a role in reforestation and that this role is shrinking. Seeding peaked in 1970 at 112,000 acres. This is an inexpensive way to quickly cover large areas. Seeding is diminishing because experience shows it is seldom a fully successful reforestation practice. Reliable reforestation favors planting. The change from seeding to planting has increased seedling demand.

The demand for forest products has been accelerating. The nation has been requiring more fiber and boards from the Pacific Northwest forests. This also contributes to seedling demand.

The reservoir of 300 to 500 year old timber stands has been largely depleted. Loggers must cover two to three times the area today to obtain the volumes found on a single acre of virgin forest. Hence, another contribution to seedling demand.

When forest land was inexpensive and plentiful, there was little incentive to husband it carefully. It was possible to clearcut and move on. This is no longer possible.

The States of Oregon and Washington have adopted Forest Practices Acts. These require specific stocking standards within specified time periods following harvest. This mandates planting.

The above factors influence seedling demand but do not explain the container phenomenon. In my judgement, a number of factors are involved. First, suitable tree nursery sites are scarce and expensive. Second, conventional nurseries require much time and capital to develop and seedlings take several years to raise. Third, container operations require less space per million seedlings than does a bare-root nursery. Finally, the container concept promises advantages over conventional methods of meeting seedling need. Jim Kinghorn has already outlined some advantages. Subsequent speakers will supply others. In any event, the demand developed and container facilities sprang up to meet this need. A variety of container systems are in use in the Pacific Northwest. These range from simple one-crop shade houses to complex operations with much environmental control. Few operations are exact copies of one another. Time permitting, I will be happy to take you on a brief slide tour of Northwest facilities.

GROWING PAINS

There have been many growing pains in the development of container systems in the Northwest. Since the system is scarcely five years old in Oregon and Washington, there will be more.

Americans are a gadget-oriented people. We are always looking for an easier and better way. We seek panaceas. A dozen or more years ago we welcomed aerial seeding as the solution to our rehabilitation problems. It was not universally successful. Standardized container-grown seedling and site must be matched as carefully as is necessary with the present variety of bare-rooted seedlings (1-0, 2-0, 1-1, 1-2, etc.)

The four-inch plug is proving too short for many Northwest applications. June to September precipitation is not sufficient. We get little if any summer rain. Roots do not grow out of the short plug fast enough to stay with retreating moisture. The use of short plugs where larger were needed has disappointed many. On the plus side, container-grown hemlock has been a godsend. Northwest nurserymen were never able to raise sufficient numbers of this species to allow hemlock as a viable option. Now we have it.

Containers have bought time with many of the hard-to-raise true firs. (Noble, Shasta Red, etc.) This has been a big plus.

From the tables you can see the Northwest has plunged into containers with both feet. We will remain there. I am confident that with the passage of time, we will get over our growing pains and make full use of the many obvious advantages of this technique.

May I conclude by inviting those interested to visit the Northwest September 25 and 26. On those dates the Oregon and Washington Silvicultural Council is sponsoring a tour of comparative outplantings. One day we will tour the Cascades. The next day we will visit similar outplantings in the Coast Range. The group will have an opportunity to see, compare, and make their own assessment of the system under a variety of Northwest situations. You are all invited. Drop me a note if you are interested. My address is on the handout.