OBSERVATION OF COAST REDWOOD BARE ROOT SEEDLINGS

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In the past, there has been very little interest in the coast redwood as a timber species outside it's natural range. Because of its sprouting characteristic, there has been very little need for seedlings for commercial planting.

We at H-H Forest Tree Nursery Inc. have been growing bare root coast redwood seedlings for about seven (7) years. By observation and trial and error, our appreciation of this species has really increased.

While germination of the seed is generally low, there are so many seeds per pound that this is no big problem in seeding. Even though the native range of this species is along the coast, there is a certain amount of winter dormancy and we naked stratify for 30 days. We sow in an open trench which is approximately one half (1/2) inch deep and cover with perlite approximately one eight (1/8) inch deep.

We sow on ground that is fumigated with four hundred (400) lbs./ac. Methyl Bromide then fertilize with nine hundred (900) lbs. 16-20-0 to the acre. We tried a field test which was not fumigated and it was a complete disaster. We usually sow two (2) or three (3) weeks later than our sowing date for Douglas-fir. As our target seedling size is twelve (12) to eighteen (18) inches high, we have found that an early seedling date results in twenty four (24) to thirty six (36) inches high seedlings.

The most serious problem we have is frost injury to the soft tissue of the tops of the seedling. If gradual frost does not occur in the Fall, the seedling does not shut down it's growth and injury occurs. This year we may try root wrenching to harden off new growth in October.

Cold storage has not proved satisfactory for extended periods *due* to mold in the foliage.

We supply a local container nursery with seedlings that are planted in gallon cans. This has shown that there is a great deal of genetic diversity even though the natural stand is limited in size.

CONCLUSION

With the shortage of redwood logs, planting of coast redwood seedlings will probably increase. The adaptation of this species is much greater than current practices indicate.

It requires medium to high soil fertility, a location that has good cold air drainage to shut down growth in the Fall.

At the Forest Service Placerville Nursery, coast redwood is the

fastest growing tree in their demonstration planting. This is located in the foothills of the Sierras.

With the interest in sewage effluent application on land, the coast redwood should be an ideal tree as it requires higher levels of nitrogen than most other species and can tolerate over watering.

SLIDES

1. Seedling Emerging
2. Mature 1-0 Seedlings
3. Root System
4. " "
5. 2-0 Coast Redwood
6. Comparison of Ponderosa Pine and Coast Redwood