

DESIGN FOR A TREE SEEDLING PACKING FRAME

Charles A. Bigelow, Nurseryman,
James W. Betts, Assistant Nurseryman,

A most vital phase of nursery operation is proper handling of seedlings from the time of pulling until the roots have been placed in the packing media. Exposure of the roots to drying can result in poor survival in the field, wasting time, effort, and money. The climate at Bend during the shipping season is often dry with relative humidity less than 25 percent. Trees that have their roots exposed for more than a few minutes will become dry under these severe conditions. To counteract this hazard the trees are pulled in the field and the roots immediately placed between saturated pieces of burlap in boxes. The boxes are then transported to the packing shed, where they are wet down and sorted.

In the past we were confronted with the problem of trees, after being sorted and counted, lying on the packing table while the packed bundle was being tied. If some of the stock in a seed lot being sorted was extra large, a complete bundle of the large stock might be sorted before the previous one was tied, or the sorting belt would be shut down and not run again until the packer had caught up. Consequently, 8 to 10 persons stood idle for several minutes, wasting many man-hours a season, as well as exposing the roots to drying conditions. A packing frame similar to those in most nurseries was in use at the time.

A frame was designed to rotate so that one side could be tied while the other was being packed (fig. 1). The following advantages have been realized during the past three seasons in using this packing frame (fig. 2):

1. Sorting belt runs continuously regardless of size of stock.
2. Trees are placed in the packing media as soon as they clear the sorting table.



Figure 1.--Revolving tree seedling packing frame.

¹ Bend Pine Nursery, Bend, Oreg.

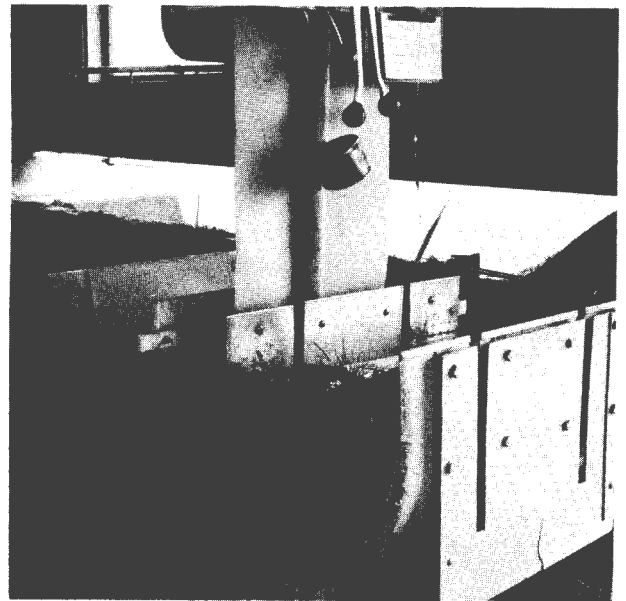


Figure 2.--Frame, packed side may be tied while other side packs.

3. Worker has more time to properly tie the bundle, check the grading, and supervise the sorters.

4. Trees are believed to leave the nursery in better condition and to survive better in the field.

The packing frame, described above, has been used at the Bend Pine Nursery during the past three seasons. It is very efficient and no refinements to it are foreseen. Several nurseries, close to Bend, have asked for its design and it has been sent to them.

A materials list will be sent upon request from the Bend Pine Nursery, U.S. Forest Service, Bend, Oreg.