

REASONS, PROBLEMS AND RESULTS OF GROWING A LARGE  
TREE IN A GREENHOUSE

by

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In the fall of 1953, when our greenhouse plant was still in the planning stage, it was decided that an addition was needed to house a seed-bearing size tree. Dr. Bruce Zobel suggested this addition and gave as his reason the following:

"By having a tree growing under conditions which temperature and light can be controlled, we believe we can encourage flowering in the desired direction of the researcher. By means of grafting various and sundry scions, we can study numerous species and hybrids under the same conditions in the same room".

For this sound reason, the "tall house" was built. It measured 25 feet square by 22 feet high.

In the selection of a tree for this building, several factors had to be considered:

1. Size, quite obviously, was the most important. One must be chosen that would not outgrow its confines in two or three growing seasons.
2. It must be healthy, but preferable a slow grower.
3. Sonderegger pine (*Pinus sondereggeri*) was preferred due to its larger branches. This would make grafting simpler. Loblolly (*Pinus taeda*) was our second choice.
4. A prolific seed producer was desired.
5. It must be growing in a tight soil to make moving possible.

A loblolly pine was eventually selected, the cone bearing quality having to be sacrificed for size. Its measurements at the time of moving were 15.3 feet tall, 8.6 feet crown width and 4.2 inches dbh.

The tree was moved in March, 1954. The original shock of transplanting, plus terrific transpiration in the glass house, was almost too much. Feeder roots had not grown into the fill dirt and water would not penetrate the root ball in sufficient quantities, so it was dying from a lack of water. Even though several one gallon cans with holes in the bottoms were buried in the root ball to force watering, by August the tree seemed doomed.







