

# NEW DEVELOPMENTS AT ALBUQUERQUE TREE NURSERY

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The Albuquerque Tree Nursery is located south of the Albuquerque Airport in Tijeras Arroyo. The site has been used for truck gardening and was until recently an honor farm in the city of Albuquerque jail system.

The production facility planned by the United States Forest Service is in three parts.

## Solar Heated Greenhouses

All greenhouses are solar heated to some degree. The unique facet of this plant will be the ability to store heat during the daylight hours and recall that heat during periods of darkness.

The storage planned will be "Rock Bed Storage". Each unit will have 2 solar collector walls in which air is heated and forced through the rocks. During periods of darkness a dampering system will regulate the flow of air back into the greenhouse from the heat storage area thereby reducing by around 70% the use of fossil fuels.

Each greenhouse unit will be 10,000 sq. ft. We presently plan four of these for a total of 40,000 sq. ft. of greenhouse space.

The present plan calls for producing 3 million per crop with two crops through these greenhouses.

These greenhouses were designed by the firm of Burns and Peters in Albuquerque and based on available financing we should have the first 10,000 sq. ft. unit in operation by the fall of '79.

## Bare Root Nursery

The bare root nursery is planned for a capacity of 32 million 2-0 seedlings a year. This could possibly be increased if we can develop the capability of producing 1-0 stock as well as 2-0.

Our total production will be approximately 80% Ponderosa pine with S.W. white and Bristlecone pine, Engelman and blue spruce, Douglas fir, and white and sub-alpine fir making up the balance.

Our water source is wells, the soil is a loamy sand of the Blue Point Gila series. We naturally have the classic nursery problems of soil borne diseases and ph adjustments to contend with but we have received excellent support from the Rocky Mountain Station as well as Regional scientists in overcoming these problems.

### Seed Bank

The third arm of the nursery facility will be the Regional tree seed bank. This will also utilize solar heat in the extractory. The design for this has been a joint effort between the Missoula Equipment Development Center and the design people in Region 5.

We will be processing all of the before mentioned species as well as assisting the tree improvement work underway in the Southwest Region.

The magnitude of our seed needs is somewhat staggering to the people that have not been exposed to large nursery operations. As an example, it requires over 8,000 pounds of Ponderosa pine seed to sow for 30 million seedlings.