## DEVELOPMENT AND EXPANSION OF THE HUMBOLDT NURSERY

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The first thought to keep in mind when a new Nursery is planned should be the ultimate production, not just next year or the next ten years, but for the next fifty years.

Acquire all the land you need to meet this goal, plus a little more for flexibility, and then take a long time to plan and design the layout. And, most importantly, build it only once--complete with roads, irrigation and drainage systems, packing sheds, offices, people conveniences, repair shop and equipment storage. Get it all centralized and then after you start operations, <u>don't</u> ever change. If you need to expand, build another Nursery.

I can speak with the voice of authority and experience; the advice that I just gave you wasn't considered in the development and growth of Humboldt Nursery.

In 1958, the Forest Service, in all its wisdom, decided that 40 acres of seedling production area, producing a maximum of 4MM seedlings, would be ample for all of California's needs; this was to be in conjunction with the Placerville and Mount Shasta Nurseries. Following a one-year search, during which 60 sites were examined, a 129 acre parcel known as Nylander Tract was offered as one piece. The land was acquired in 1960 by the Six Rivers National Forest. As the land was being leased and operated as a rhododendron nursery by Cottage Gardens, only 27 acres were immediately available for seed beds.

A small packing shed containing a 12' x 12' office was constructed on the northeast corner, a 300,000 gallon reservoir dug, and pumps set up on an adjacent creek site, which had been leased from a private landowner to furnish water to the 4MM seeds planted. Cold storage space was leased from a meat packing firm 20 miles away, and Humboldt Nursery was in business.

About 1965, adequate cold-storage facilities became nonexistant. Therefore, a 40' x 40' cold-storage facility was constructed 3,500 feet to the west at a location that later became the complete packing, storage, and administrative complex.

Cottage Gardens abandoned their lease about this same time due to market conditions; four seed orchards and a progeny test orchard were planted in the released area. In 1968, Mt. Shasta Nursery was closed and caused a slight increase in our production due to additional Oregon, BLM, and BIA stock. The packing shed proved too small in 1969, and the current complex was constructed, incorporating the 40' x 40' coldstorage area; it was ready for occupancy by the 1970 packing season.

This was when I became assigned to the Nursery as an Assistant Nurseryman trainee. I had a month's training when the Nurseryman, Hank Doll, took an extended leave to Australia. Upon his return, he decided that Humboldt Nursery had grown too big, production was about 6MM, and he decided to retire in May of 1971. I was a full-fledged Nurseryman!

The first large project was to put into production all of the arable land freed by the Cottage Gardens lease that was not already occupied by seed orchards. Four large blocks, consisting of 38.5 acres, were designed, leveled, and prepared. Irrigation and drainage systems were installed, and a one-acre sump was constructed to collect and monitor runoff. Humboldt Nursery expanded that year by 140 percent; production increased to 11MM.

Unfortunately, due to the discontinuance of a mercury-based fungicide, the Nursery lost almost 4MM of that production in 1975. This was soon rectified through the assistance of Pathologists from the Region, PSW, and the University of California.

Other problems quickly arose. The shop and equipment storage area (the old packing shed) were at one side of the Nursery and the office and packing area at the other. The lease on the creek pump site was becoming complicated as was the verbal permission to use a private access to the area. The whole irrigation system needed overhauling and an additional water storage reservoir was definitely needed.

Our source of domestic drinking water, again on private land and again without legal documentation, was becoming unsanitary. The temporarily installed plastic supply pipes also began to deteriorate. Luckily, the McKinleyville Community Service District was installing a completely new water system to the town; therefore, an eight-inch main was provided to pipe water to the packing complex. The old system was then immediately abandoned.

A year later, the original three-inch meter was replaced by a larger one, and a six-inch line was installed to deliver domestic water to the irrigation reservoir as a back-up system. This soon proved its worth, as our creek dam and water source was desperately in need of repair, and, as we did not own the land, we started negotiations to purchase the property and a right-of-way for access to the pumping station. A new reservoir on the east side of the original one was constructed by an engineering battalion of the California National Guard. They also cleared an area adjacent to the equipment shop for equipment storage (we erected two pole buildings last year) and widened the Nursery access road from the original width of 12 feet to its present 20 feet. The road was later blacktopped.

Other improvements were made. Four thousand feet of chain-link fence was constructed along the east and west boundaries of the property. Since that time, over half of the fence has been removed due to the recent land purchases. This removed fencing, plus an additional 4,620 feet, is being set up and will eventually surround the present property completely. Due to this expansion experience, I am of the opinion that, when enlarging a Nursery, either no fence should be erected, or a portable one should be installed, until expansion is fully completed. However, no one knows when the process is really finished; in fact, in June of this year I got an inquiry from the Redwood National Park for a source of possible planting stock--naturally, Redwood.

In the 1974-75 Westside Nursery Study, it indicated that the ultimate annual production of Humboldt Nursery should be 26MM. Authorization to purchase additional property was given, and 30 acres to the west were acquired. This property was leveled, prepared, and fenced. Irrigation and drainage were also installed. Half of the acreage is presently in production; the other half will be in production in the spring of 1978.

Other Federal lands were acquired at Chico and a Regional Tree Improvement Center installed there. Consequently, all seed orchards at Humboldt were removed, and that prime seedling production land was thus freed and incorporated into seed beds. Only the progeny test area remains, and that area is scheduled to be put into seedling production in 1978.

An additional 50 acres were purchased in 1976--20 from our neighbors on the northeast (Balke) and 30 from a bulb farm to the northwest (Hartman). The land purchase on the northeast gave us the outright ownership of the creek dam and pumping station, the right to build our own access road, and eight to nine acres of arable land. Thus, a new creek-diversion dam was installed and production land is being prepared.

At present, the Nursery consists of 209 gross acres. When fully developed and all usable land put into production, which will be two years at the most, the Nursery will have 156 acres of seed beds, capable of producing between 26MM (as recommended by the Westside Nursery Study) to 30MM seedlings, depending on sowing density. We also could obtain 2 parcels totaling 55 acres on the southwest and northwest boundaries which would enable us to produce 8 to 10MM more seedlings. This will put us into the same class as the larger Forest Service nurseries, such as Wind River, WW Ashe, Coeur d'Alene, and the new nurseries under construction at Medford and Albuquerque. Contracts presently in progress are as follows:

- (1) A new packing shed containing lunch rooms, adequate sanitation facilities, and other people conveniences (as well as two 40' x 60' cold storage units). (\$635,000)
- (2) Leveling of the Hartman 30 acres. (\$53,000)
- (3) Irrigation and drainage of Hartman 30 acres. (\$90,000)
- (4) Fencing of Hartman property. (\$15,000)
- (5) Underground PG&E facilities. (\$50,000)
- (6) Polebuilding. (\$20,000)
- (7) Blacktopping. (\$16,000)
- (8) Electrical and irrigation upgrading, new pumps, main, etc. (\$390,000) This totals \$1,269,000, plus \$105,000 for capitalization of planting stock due to expansion and other new farming equipment. When you add the GA assessment, Humboldt Nursery will be spending \$1.5MM this fiscal year.

In FY 78, when the present packing shed is vacated and all production operations are moved to the new complex, we plan to enlarge our office space, constructing another large 30' x 50' cooler inside the building, moving the lab facilities upstairs, and adding a conference room and I&E reception center. The Balke property should also be ready for irrigation lines as well as the North Seed Orchard; this will put the last 18 acres into production. This totals around \$612,000 of improvements anticipated.

This Nursery is five times larger and more complex now than what it was in 1970 when I became Nurseryman. Yet, in spite of all efforts to upgrade the Nurseryman's position one GS level, the Region will not consider such an upgrade stating "the level of work is not a difficult and important responsibility."