CUTTING COSTS IN NURSERY OPERATIONS

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The major factor that has helped us at Container Corporation of America to cut costs in our Nursery operation is mechanication. As in many other phases of this industry and other industries, a large part-time hand labor force is impossible to maintain. As most of you already know from being involved with nurseries, there are particular times of the year that if you use hand labor you need as many people as can be found and yet there are other times when only a minimum labor force is needed.

We have expanded our operations and are maintaining a full-time minimum crew. To help you understand this, here is a brief idea as to how a growing season of today goes as compared to our operations at our old Nursery.

First, the Nursery crew consists of three full-time employees as compared to from two to twelve before mechanization. This is mentioned so that you will know that all operations are performed with this size labor force.

We have gone with complete fumigation of the soil with methyl bromide prior to planting. This is a major cost item in growing our seedlings. We feel the time and money saved in weed control and the fact that soilborn diseases are controlled compensate for this cost. We also have a more uniform crop of seedlings and we feel that these seedlings are of a higher quality.

Our planting procedures are essentially the same as always. The factor that we consider saves costs is proper training and becomes more efficient at this phase of the operation. The hold-up in planting procedures has been the mulching of the seed beds. In the past we used pine straw as mulch; now we use hydro-mulch. In the strawing processing it took seven men thirty minutes to mulch one seed bed. Loading was done about every two beds. With our hydro-seeder we use two people and mulch five beds in twenty minutes. Loading is done every five beds and takes approximately the same time as straw-loading (25 minutes).

We have a portable irrigation system. This system allows us to completely clear our field for better soil cultivation. We have one set that is used for both fields. It is rotated from one field to the other each year. This saves the cost of two complete systems.

In maintenance of our Nursery, we have found that tractor-pulled, PTO powered spraying equipment is a simple, economical process. We spray, as most of you do, for weed and disease control. Our previous spraying equipment was all tractor-pulled and powered by small gasoline engines. This type of equipment requires almost constant maintenance. We found ourselves working on the equipment more than using it.

Our harvesting operation has been our biggest cost-cutting factor in the Nursery. When this was a hand labor operation, it took eleven people a good ten-hour day to lift and package 125,000 seedlings. Today, with our seedling harvester, three people can lift and package 300,000 seedlings in a normal eight-hour day. Our mechanical lifting is a consistent figure, whereas the hand-lifting was a very inconsistent operation. The basic design of our harvester was that of the one developed by the State of Florida. Working with Mathis Welding of Lake City, Florida, we developed a machine which we felt fit our needs. We lift and package our seedlings in the field.

We are now storing our seedlings in refrigerated storage after lifting and prior to planting. This is a cost we have added, yet we $\frac{know}{our}$ survival in the field has been increased and this has cut our replanting costs.

Of course, there are many little things we do that we feel cut our costs. We are always looking for a better way to do things. We have modified equipment to save man hours and thus cut our costs. We believe in good housekeeping and proper maintenance of equipment. Our maintenance not only includes the physical process of performing the maintenance, but also keeping an adequate parts supply.