## REDUCING NURSERY OPERATING COSTS

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When asked to serve on this panel I was flattered, but when I found out that I would have to speak on reducing operating cost I almost fainted. At least I will have a front row seat to hear how everyone else is reducing costs.

In Oklahoma, the nurseries are at the bottom of the totem pole when it comes time to divide up the budget. The total budget for the two nurseries in Oklahoma has been virtually the same for the past ten years. I hope no one else can make that statement.

I am sure that we are all aware that there is a difference between saving money and just getting by on less money. When you start talking about reducing cost, you must always keep quality firmly in mind. When you consider the cost of regeneration, the seedling cost is a small percentage of the total, but the quality of the seedling may very well determine whether or not the regeneration effort is a success or failure.

Weed control is one of our biggest expenses. Our budget will not allow us to fumigate, so we rely on hand weeding to control the weeds and grass. Several years ago we started some herbicide screening trials, in cooperation with Dr. Carter, to find some safe chemicals for hardwoods. As a result of these studies, we now use treflan on almost all species that we raise. On most species, the treflan is applied when the trees are two to four weeks old. The chemical is applied at the rate of one pound of active ingredient per acre and immediately irrigated into the soil. This method gives us 50 to 80 percent weed control for one to two months. Then another application must be made. Another method that we use to reduce the amount of hand weeding is to plant certain species in rows just as you would cotton or corn. This allows the use of a conventional cultivator to help control the weeds.

Two years ago we started using paper bags to package our seedlings. Prior to this time we used the open-ended bundle method of packaging. We have used two different types of bags.

Bag Specifications: First Type.

Double wall Kraft; Polyethylene applied as a 10 lb. laminate to the inner-facing wall of 50 lb. Kraft. Outer wall of 60 lb. Kraft to have a minimum of 10 lbs. laminate of polyethylene. Bottom to be taped and sewn. Bag Specifications: Second Type.

Multiwall, sewn open mouth. Inside wall 10 lb. low density polyethylene coated 50 lb. Normal Kraft: Middle wall 50 lb. Normal Kraft: Outside wall 50 lb. Normal Kraft. Bottom to be taped and sewn.

We prefer the second type of bag because it is stronger and it is easier to handle because the outside is not poly coated; it is not slick.

We feel that the bags have several advantages that result in a reduction of costs as compared to the open-ended bundle.

- 1. Saves on labor.
- 2. Requires less moss.
- 3. Less damage while in shipment.
- 4. Cleaner to handle.
- 5. Better survival.

In closing, I want to mention a "money saving" idea that did not work for us.

In the fall of 1972 the Oklahoma Corrections Department opened a Regional Community Treatment Center about 15 miles from our nursery. I thought that this would be perfect, an almost unlimited supply of free convict labor. Possibly, some of you may use convicts in your nursery operation and get satisfactory performance from them, but my experience with convicts as nursery labor has been all bad.

Problems associated with convict labor:

Poor mental attitude toward working. Tear up equipment to stop work. You have limited control over them. Security. Transportation.

These special problems associated with convicts cost you time and money that could be better spent on other matters.

All things considered, we would have been money ahead to have hired nursery labor instead of using the "free" convicts.