# REDUCING NURSERY OPERATING COST

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When I was informed that I was to make a presentation on the subject of economizing in Nursery operations, I immediately thought of the trend of parent-child relationship which was promoted by some factions of psychology a few years ago and of which we are now reaping the consequence. The idea of the child teaching the parent has not proven too successful in improving our social existence so far, and I doubt very seriously that my remarks to most of the older, more experienced nurserymen, and others, here today will prove to be more effectual.

Since most of us do work within a budget that is rather inflexible as far as expansion is concerned, we must constantly be on the alert for ways of improving our operations without sacrificing quality or quantity of products. We must make many adaptations to equipment which we have on inventory, rather than buying specific equipment for each job. In matters of this concern the application of a little foresight, initiative and common sense must prevail and will generally suffice in improving the operation of a given task.

With full knowledge that Nurseries, like medias of transportation, all work to accomplish the same or very similar results, each must have a method of operation which may vary in similarity. Because of various factors, very few nurserymen can thoroughly discuss the problems which may be specific or of particular interest to another whose geographic location or production assignments may differ so widely.

With this thought in mind I will attempt to discuss some general practices which may be applied almost anywhere and some that may apply to some of you but which definitely apply to Winona Nursery. I have broken them into three catagories according to their general application and the various degrees of economy. They are as follows:

Catagory #1

Application to Nurseries: General

Percent of Nursery Economy: Small

When mowing lawns use tractor mounted 3 point hitch rotary cutter. Mow only when dry enough to keep from rutting. Make wide swings or turn in roadways always operating tractor in as straight a line as possible. Slope ditches so that tractor can cross as well as mow sides of ditches. This type equipment is much faster, less expensive in the long-run and leaves grass in excellent condition when done properly. Remove some shrubbery if need be to accomplish this. Most nurseries are overstocked or have some shrubbery that can be removed without adversely affecting the landscape. The uniformity of cut, rather than the closeness of cut is the thing that enhances beauty in a lawn. Actually there is more green color left in a lawn that is not too closely shaved.

When it is necessary to haul a great quantity of debris for rather long distances try using two wagons behind each tractor. This cuts down on the amount of time riding to and from each site and there-by increases actual working time for the crew. In addition to this you save the services of one operator and one tractor which may well be needed elsewhere. In view of the present fuel shortage practices such as this may become more commonplace around many nurseries. Under certain field conditions this practice may also be applied to the removal of seedlings and cottonwood switches from field to house.

Catagory #2

Application to Nurseries: Restricted to Nurseries Producing Cottonwood

Percent of Nursery Economy: Intermediate

If your production of cottonwood cuttings is near or exceeds 100,000 annually you would do well to use machinery to harvest and process rather than employing the hand method.

Make yourself a cottonwood cut-down saw by using various belts, pulleys, a gear box with satisfactory ratio to your tractor P.T.O. and a good solid steel base which braces the equipment as well as anchors the gear box required for the saw mandle. Such a machine will do the cutting of perhaps twelve field hands.

Use a gang type cut-off saw to get each switch cut into lengths for planting. Although more complicated and expensive, this piece of machinery can be made in most nursery shops. In most cases the accepted length for cuttings is 20 inches. About seven saws thus spaced will handle the average cottonwood switch and produce six plantables. Such a saw will cut in excess of 50,000 cuttings per day when properly managed and will employ several counters, strappers and other such labor type personnel.

Insects in young cottonwood can be quite damaging. When not prohibited by regulatory measures use a good systemic poison such as furadan, disyston or thimet. All are somewhat effective against the leaf beetle, stem and twig borer. The use of Furadan in experimental test has proven very effective against leaf beetle when used by our own I.&D. Department and by Stoneville Experiment Station on our nursery. While the use of systemics is important from an economic stand point of time and equipment use, its outstanding achievement may also be found in the fact that there is less retardation of growth caused by insect damage and it works in rainy weather when fields are in no condition for tractor-mounted or drawn spray rigs.

Catagory #3

Application to Nurseries: General

Percent of Nursery Economy: Outstanding

Make use of any pre-emergence chemical that will handle your particular nursery's problem. Since all such chemicals must now be certified for use, use the ones which apply to your vicinity and re-acts to your problem and production assignments.

We have found so-far this year that a single application of methyl bromide has been 80% effective in controlling unwanted grasses and weeds. It has been especially effective in the control of nut grass or nut sedge as it is often called. Care and concern must be used in the application and in the practices which follow treatment. Under-plowing or re-contamination from mulches can often off-set the visible effects on grasses etc. while some benefits should still be received from soil sterilizations.

A new chemical being presently tested shows promising results as a pre-emerge. Deston at the rate of 1.25-2.50 pounds/acre as used experimentally here by Stoneville Forestry Research may soon be the answer to the greater part of grass problem in pine planted areas. Its effects on hardwoods is as yet uncertain and perhaps even untested to my knowledge. I am in no way recommending use of this chemical until accepted by and approval by the people who are doing the experiment. I mention it only as a good looking prospect for future use in pine seedling areas.

Last but not least and perhaps by-far most outstanding aspect of economy on nurseries or elsewhere is deployment of personnel-use the right man for a given task. Perhaps the greatest loss of time and material comes from improper assignments. Supervisory personnel should know the ability and willness of each employee and should use this knowledge in making assignments. They should in turn follow up each assignment of major importance rather than surmising that it is being taken care of properly. One person can easily make an assignment for fifty or sixty workers daily. He cannot, however, see that these assignments are properly administered. This is where the supervisor becomes as important as a good right arm. The fact that he is subject to check each job, and does so at regular intervals, will generally enchance the quality and quantity of work done by any crew, no matter how large or small. With this type cooperation you can operate any job successfully, without it you may not expect to do more than run a hap-hazzard operation. Ultimately just about everything mentioned thus far depends upon you and your supervisory personnel.