

mechanization of our digging operation and building of a complete new grading, shipping and cold storage facility.

The real proof that the system has worked for us, is the fact that our profit margin has steadily improved as we progressed with the system.

MODERATOR HENRY: Thank you, Tom. Our next speaker is Earl Robinson who's going to discuss with us the costs involved in container production.

TRACKING COSTS IN CONTAINER PRODUCTION

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I believe that we at Medford have developed a very simple and yet unique method of tracking costs that work. We have divided our costs into 8 areas: i.e. propagation (I), containering (II), growing (III), general (IV), selling (V), shipping (VI), administrative (VII), and capital (X).

All costs of materials and labor for any given year must be charged into one of these categories. After all costs are entered we break them down to a cost per plant or container produced. We keep a record of all plants planted during the year, and charge our costs as described below. It is virtually impossible to accurately account for cost by acre or plant cultivar as our acreage is too diversified and the record keeping is impossible to maintain. Many sizes, ages, rates of growth, etc. do not lend themselves to keeping costs in this manner.

We start by keeping our ledger sheets up to date, time cards posted daily, etc. Then at the end of the year we make the following computations: To the inventory of empty containers at the beginning of the year, we add the number of containers purchased and re-used which gives us total containers. From this, we subtract the end of the year inventory of empty containers which gives us total containers used (TCU). The gallons per container for each container category is multiplied by the containers used to give *total accumulative gallons* — (TAG).

For example:

TCU	SIZE	=	TAG
10,000	1G	=	10,000
30,000	2G	=	60,000
20,000	3G	=	60,000
40,000	5G	=	200,000
10,000	7G	=	70,000

400,000 accumulative gallons planted

After computing the total accumulative gallons, this is divided into each area of cost to determine its respective cost for each plant.

	Total Cost By Area	Accumulative Gal		Cost Per Gal
Propagation (I)	\$100,000	400,000 (liners)	=	\$.25 (liner)
Containering (II)	100,000	400,000	=	.25
Growing On (III)	300,000	400,000	=	.75
General (IV)	50,000	400,000	=	.125
Shipping (VI)	50,000	400,000	=	.125

There are several relative factors that remain constant, such as container cost — 2 gal is twice that of 1 gal etc. Many others, such as soil mix used, acreage used, etc., remain constant in proportion to gallonage of container.

Next, you add up totals for each gallon cost for each of direct inventory cost areas.

	1G	2G x 2	3G x 3	5G x 5	7G x 7
Propagation (I)	\$.25	\$.25	\$.25	\$.25	\$1.50
Containering (II)	.25	.50	.75	1.25	\$1.75
Growing On (III)	.75	1.50	2.25	3.75	5.25
General (IV)	.125	.25	.375	.625	.875
Shipping (VI)	.125	.25	.375	.625	.875
Cost of goods sold =	\$ 1.50	\$2.75	\$4.00	\$6.50	\$9.00

Since we know the age of all our stock we multiply each by a factor for age to obtain the cost of any given item.

It should be remembered that we use averages in some areas and that all costs may not be charged 100% accurately to the appropriate area but all costs have been accounted for.

After totaling our “Cost of Goods Sold” from Items I, II, III, IV, and VI, we then get our Gross Profit. From this Gross Profit, other non-direct inventory items are deducted, i.e. Items V (Selling) and VII (Administrative). This gives us our profit before taxes. Class X (Capital) items are depreciated and this amount is charged directly to the category to which it applies.

We realize that inventory is normally not declared for a number of reasons; however, this is the only way to see where you really are. This is basically the concept we use.

As you have noticed, detailed records have not been kept of specific cultivars. We all know that we have real money-makers and those where losses are higher or cultural practices more costly and critical. We feel the cost of tracking this information would not be worth it and that these evaluations can only be made by comparison and at the field level. No record keeping is necessary.

MODERATOR HENRY: Earl has shown us a slightly different approach to costing and I think it's good for us to see some of these different ideas our colleagues have; we can go home and try to adapt them to our own situations. Our next speaker, Ralph Shugert, is going to talk to us about costing propagation.

COSTING PROPAGATION

RALPH SHUGERT

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My topic today is a most interesting one and has been discussed at several previous Society meetings. Our new Index to the Proceedings indicates that a minimum of six papers covering cost information have previously been published. The costing of propagating is extremely important and I firmly believe that a propagator has a direct obligation to furnish his employer cost information. There is no way that intelligent pricing of plant material can be conducted without accurate, detailed cost analyses. If the propagator is the owner, then I would surmise that pricing would be even more important so that profitability could be justified.

The costing information reported to the Society at our various meetings includes a wide range from generalities, to formulae, and finally culminated with a paper printed in Vol 23 showing the time study on costs in England pertaining to several grafting operations. As I mentioned in a paper presented to the G.B.&I. Region in 1973, the propagator must be motivated by the business philosophy of the company for whom he is employed. If the propagator is self-employed he should have even more personal motivation to determine actual costs in his operation. All of the forms and all of the guidelines existent in the nursery community today are meaningless unless the philosophy of costing is completely ingrained in the individuals involved. There are two record forms that we are presently using at Spring Hill Nurseries. The one form (No. 1) covers seed production and is very simple, showing the amount of time devoted to picking seed, cleaning seed, and the actual seeding operation itself. The form shows the cultivars involved, as well as a field block number, and then the production or unit amount for each specific case. This information is then collated and held until the crop is harvested and graded. We feel that we are now rapidly approaching the final costing of most of the crops we produce.

For years, florists have done a superb job in costing floral crops. For example, in my files I have costs on Easter hydrangeas,