

# THE SIGNIFICANCE OF NURSERY ECONOMICS

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Nursery accounting and nursery economics are subjects which, in my experience, do not excite the majority of nurserymen. Perhaps it is that most nurserymen have come into their profession because of a natural inclination to work with plant material rather than with pieces of paper on a vast executive desk. The prospect of being chair-bound is anathema to many plantsmen and is something to be avoided at all costs.

There is also the possibility that people who call themselves accountants or economists are people who speak a strange language not at all like that of the nurseryman. Conversely, the nurseryman probably sounds strange to the accountant! Each has his own jargon which to the uninitiated appears as a barrier to understanding. In almost any situation where 'jargon barriers' occur, it is highly likely that a certain amount of mutual misunderstanding will develop between the groups involved. At worse, misunderstanding leads to distrust.

May I say that if the picture I have painted is a true one then I think it is a pity. For it seems to me that the accounting profession has an enormous amount to offer the nursery industry; and given better nursery accounting and records the economist could start making a lot more sense of the problems which confront the industry today. It is true that an awakening is occurring in some nursery firms and a grip is being taken on the accounting<sup>1</sup> this hopefully with better management in mind.

"The significance of Nursery Economics" will be interpreted in this article in three different ways: (i) at the international level, (ii) at the inter-company level, and (iii) on the intra-company scene.

**The international level.** Whether we like it or not the British Nursery Industry is inextricably linked with that of mainland Europe. Until recently it has been very much a one-way trade, with Britain absorbing various nursery products from nearby countries, notably Holland. In particular we can think of the importation of millions of rootstocks each year as well as large numbers of lining-out stock. But although we have become used to this pattern of trade over the last three or four decades this has not always been the case.

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<sup>1</sup> Accounting should be interpreted here to include not only financial accounting but also the measuring of labour and material inputs as well.

Frederick Street in his 'History of Goldsworth Nursery' has stated that in the 20's Goldsworth Nursery exported as many as 4.5m rose stocks (Manetti) to the United States in one year — a fairly substantial number even by modern standards. But this trade is now as dead as the Dodo. And as I see it, we may well be on the verge of another major shift in the pattern of international nursery stock trading. The point is that relative economic advantages change over time as, of course, does production technology. In consequence it is possible that rootstock production, until recently the prerogative of the Dutch, may once again become established in Britain.

It is noteworthy that the Dutch nation has recently become progressively more industrialised and less dependent on agricultural/horticultural production. Labour has been drawn from the land into industry and in turn the agricultural worker looks for wages on par with his industrial counterpart. This, of course, has resulted in some fairly steep rises in Dutch nursery-stock prices over the last few years.

The international economic scene is therefore relevant to our thinking and the nursery manager, with planning horizons beyond the present year, would do well to develop a strategy for taking up the opportunities as they arise.

**The inter-company scene.** What do we mean by this? At any given point in time there will be various nursery companies competing for a share of the market for nursery stock. Whether it be rose trees, fruit bushes or clematis there is a roughly defined market place in which firms compete at least to a degree.

For the moment we will stay with roses since these make a readily understood production group. Some of you may have experience of the vagaries of the market for this product over the past few years.

Consider with me for a moment four possible producers of rose bushes: (i) the large, wholesale producer who prepacks for the supermarket trade; (ii) a farmer who grows roses on contract or as a speculative venture into a new crop; (iii) a large grower/retailer; (iv) a small grower/retailer.

An interaction, via the market place, is going on between these groups as a result of the cost/price framework within which they are each working. As every nurseryman knows — production techniques have developed such that mass production has become feasible. In particular we can mention the use of herbicides, purpose-built machines, and budding techniques.

The effect on the four classes of rose producers has been tabulated for ease of reference in Table 1.

**Table 1.** Economics of production and marketing of roses for four categories of rose growers.

Type of Rose grower	Production costs/acre	Marketing costs/acre	Profitable selling price	Overall effect
Large, wholesale grower	low	low	low	Large numbers of cheap bushes available with a tendency to overproduction.
Farmer	low	v. low	low	"
Large grower/retailer	low	high	medium	Looks for a separate higher priced market segment.
Small grower/retailer	high	high	high	Unable to compete, probably goes out of business.

Although the picture presented in Table 1 has been somewhat dramatised in the rose trade it is, in fact, being repeated to varying degrees in many sectors of the nursery trade. Innovation alters the pattern of production and marketing which often results in some firms benefiting whilst others suffer. This phenomenon has always been part of the business world and there is no reason why the nursery industry should be an exception. Clearly it behoves us to be aware of the inter-company situation such that competitors do not gain a rapid economic advantage over us.

**The intra-company scene.** 'Matters' and 'things' are 'significant' when they affect us personally. We may not be greatly aware of what goes on in Europe; we may not even be greatly aware of inter-company competition; but we are highly conscious of the economics of our own business. We know that books have to balance and at the end of the year we wish to see total income exceeding total expenditure. As someone who has spent the best part of four years looking at the economics of nursery stock production, it seems to me that a nurseryman can best be likened to a juggler. Imagine, if you will, one hand juggling three balls labelled, 'numbers', 'grades' and 'prices' and the other hand juggling three more balls labelled, 'labor costs', 'material costs' and 'overheads'. Somehow or other all the balls have to be kept in the air, and when the juggling act is over for the year, a final conjuring trick transforms all the balls into one big ball which is labelled 'profit'. The greater the size of the last ball the more the audience, including the Bank Manager, applauds.

Now it seems to me that to juggle the balls successfully requires a lot of experience and intuition. There are good and indifferent jugglers and the indifferent ones are quite hopeless at performing the final conjuring trick. Either the profit ball fails to ap-

pear or else the juggling act collapses at an earlier stage. The result is that the audience sits glumly silent and the Bank Manager looks exceedingly gloomy.

Now the question is, has the study of economics anything to teach us so far as the ball juggling game is concerned? I feel it probably has in that it helps to indicate the size of ball for optimum performance. And although the juggling act will never reach perfection, there is, no doubt, that some optimisation of ball size can make the last conjuring trick a good deal easier and a lot more successful.

Now where a nurseryman grows simply bush roses his juggling act is a relatively simple one. All his costs relate to one crop and income will depend on the number and grade of his plants which relate in turn to the price obtained for each grade.

Many nurseries, however, are involved with several plant groups and it is here that the juggling act is often carried out more by good luck than informed judgement. The result is rather like an experience I once had of being driven down a country road on a foggy night on a bone-shaking lorry with poor headlamps. The vehicle meandered from one side of the road to the other narrowly avoiding disaster at every turn.

What I believe we need in such a situation is more information about the inputs and outputs of each plant group. With this in hand an economist or accountant can examine more helpfully the pattern of nursery production and in many cases advise on ball size for a better juggling act. Let me give you an illustration of what I mean: two nurseries I have studied produce a range of plant groups. In one analysis, I tried to determine whether, under normal conditions, some of these crops are profitable or unprofitable. My criterion has been whether the rate of return to capital employed has been positive or not. Table 2 shows some of results obtained.

**Table 2.** The rate of return on investment shown by different plant groups on two mixed wholesale nurseries.

Plant group	Percentage saleable		
	100%	80%	60%
<i>Nursery A</i>			
Bottom-worked trees	38	28	17
Bush conifers	40	40	35
Standard roses	32	15	loss making
<i>Nursery B</i>			
Bottom-worked trees	40	32	20
Bush roses	30	15	loss making
Standard roses	7	loss making	loss making

As was expected, considerable variation was exhibited in profitability between different groups of plants. Some proved very profitable and others less so. The net result, which often shows up in the annual profit and loss account, is that a business as a whole does less well than it might. The significance of nursery stock economics in this context is that given a carefully conducted analysis from which conclusions can be drawn, a start can be made on reorganising the nursery for greater profitability.

I would now like to deal briefly with one other aspect of intra-nursery economics. Quite often a nursery propagates stock, grows it on, and then transplants it once again so that the stock (or at least part of it) grows to a larger size. In many minds a clear enough distinction is not made between these different functions. The plant emerging from the propagating unit should have a price on its head. What is more, it should be a profit-making price such that the propagating unit is seen as a 'cost and profit centre' in its own right. If the propagating function is not operated profitably it may pay to buy in young stock from elsewhere to grow on.

In much the same way a nursery standard tree which is moved on to the heavy-standard tree unit should go with a price on its head. The outgoing price from one function then becomes the input cost for the next phase. Treated in this way each part of the nursery is looked at critically and made to not only pay its way but also contribute to the overall profitability of the nursery.

**Conclusions.** Nursery stock economics, as indicated in this paper, has significance at three levels: internationally, at an inter-company level and at an intra-company level. For most nurserymen the greatest rewards will come from a better understanding of the economics of his own undertaking. In particular, the choice of plant groups is important for within a given price/cost framework, partially imposed by outside forces, some nursery crops are more profitable than others. A better understanding of nursery economics will help in the formation of price policy and cost budgeting such that the full potential of the nursery can be realised.