

Use of Cost Analysis to Improve Nursery Profitability®

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INTRODUCTION

It is now possible to calculate the cost of every line of nursery stock on an individual nursery. The ease and accuracy of these costs will depend on the detail and quality of data collected by the nursery. In such a short paper it is not possible to fully cover all aspects of nursery stock costs. This paper will examine the most important factors that affect profitability and highlight the effects of time, space (crop density), yield, and waste on the profitability of nursery stock. The ways and means of allocating labour costs will also be reviewed.

Current Performance Within the Industry. Over the last few years the U.K. nursery stock industry has come under severe financial pressure. This has a number of causes, The market has slowed down due to adverse weather during key seasons and changes in consumer buying, resulting in over-production, both in the U.K. and in countries that export to the U.K. Many crops have been offered at low prices just to clear the backlog of plants.

At the same time, costs have been rising dramatically, and aggressive pricing policies from some of the larger multiple retailers are keeping prices of finished plants uneconomically low.

Tables 1 and 2 show the results from all nurseries within the Horticultural Trades Association's (HTA) Nursery Business Improvement Scheme (NBIS) for the 12 months to 31 March in each year. The NBIS is a scheme in which member nurseries can compare costs and other business data within local discussion groups. The data represent a comprehensive cross section of the industry and shows the trends within the nursery trade. Labour costs have increased dramatically over the last few years, as have transport, marketing, and sales costs, which are included in distribution. Despite a steady increase in productivity, the surplus available for extra income and investment has fallen.

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Table 1. All nurseries analysis of costs in £ per m2.

	Return per m ²	Labour	Distribution	Plants	Pots etc	Overheads	Surplus
2002	£12.26	£4.24	£1.12	£3.87	£0.83	£1.51	£0.68
2003	£14.94	£5.18	£1.40	£4.45	£1.45	£1.80	£0.65
2004	£20.23	£7.03	£1.83	£6.29	£1.83	£2.40	£0.85
2005	£19.41	£7.14	£1.95	£5.41	£1.48	£2.88	£0.55

Table 2. All nurseries analysis of costs as a percentage of output.

	Return per m ²	Labour	Distribution	Plants	Pots etc	Overheads	Surplus
2002	£12.26	34.6	9.2	31.6	6.8	12.4	5.6
2003	£14.94	34.7	9.4	29.8	9.7	12.0	4.4
2001	£20.23	34.8	9.1	31.1	9.0	11.9	4.2
2005	£19.41	36.8	10.0	27.9	7.6	11.9	2.8

Table 3. Analysis of costs as a percentage of output for market sectors for the 12 months ending March 2005.

	Return per m ²	Labour	Distribution	Plants	Pots etc	Overheads	Surplus
All sectors	£19.41	36.8	10.0	27.9	7.6	14.9	2.8
Amenity	£10.44	39.0	6.1	28.1	5.5	9.9	11.3
Retail	£25.81	35.4	14.5	29.0	7.5	19.9	-6.4
Liners	£68.72	32.3	7.1	27.6	8.2	11.4	13.3

As the profitability of the industry is falling it is now more important to establish the accurate cost of each line that a nursery produces. This is important in production planning and price setting.

Table 3 shows how various sectors of the industry are performing. Nurseries supplying the amenity market and young plants were doing relatively well up to the end of March 2005. Since then, even these sectors are beginning to find things more difficult. Nurseries supplying the retail market are finding trade particularly difficult because of a run of poor weather at critical periods, and other market forces.

OBTAINING ACCURATE COSTS

Within each sector there will be a range of nursery performances with some being very profitable and others not so. It is quite amazing that, in a relatively small industry supplying similar outlets, the cost structures of individual nurseries differ so much. It is therefore important when attempting to find the unit costs on your nursery that you use your own data and not an average of other nurseries.

It is possible to calculate the cost of each line on nearly all nurseries from the data they commonly keep. The accuracy of the costs will depend on the accuracy of the data retained by the nursery. All the information required for finding the unit costs of each line should be available from the normal records and accounts kept by most nurseries. However it may be necessary to modify some of the records to give more accurate costs.

It is not necessary to include all the costs individually because some costs are so small when taken on a unit basis that they will make little difference to the overall cost structure. For example, if a nursery spends £504 on compost tea and produces 250,000 plants each year, the cost per plant is 0.2p per plant. However, several items such as this will amount to a more significant sum — it is easier to handle such items as a group rather than individual items.

On most nurseries costs tend to be historic and dynamic. To cost accurately it is usual to take historic data that will have been affected by circumstances within that time span, e.g., weather affecting sales, disease causing crop losses, etc. This should never be an excuse not to attempt a cost exercise because the results will be very informative and will help considerably in planning and price setting. However it should be noted that costs are controlled by many variables and as these change with time then so will the unit cost.

TYPES OF COSTS

Variable Costs or Direct Costs. Variable costs are those that can be directly attributed to the crop such as pots, plants, labels, and so on. They can account for 35% to 40% of the total cost. They should be easy to allocate to a particular crop. Because most nurseries purchase their requisites from the same wholesalers, the price of most of these items is relatively constant.

In some costing exercises this is as far as the costing would go. The variable costs are taken from the output (sales) figure to give a margin. This gives an indication of the profitability of the crop but this is limited unless other factors such as time and space are taken into the calculation.

Partial Variable Costs. These are items usually included in fixed costs or overheads that can be calculated and applied to various crops. The best example would be transport, the cost of which can be easily calculated and added to the crop costs as a percentage or as a cost per unit.

In a similar way the cost of glasshouses or a heated propagation unit can be calculated either on a plant unit or an area basis, and this can be added onto the cost of plants that require these structures.

Fixed Costs. Fixed costs, or overheads, are those costs that cannot be directly related to a specific crop. Items include accountancy and other professional services, administration costs, insurance, and so on. Once labour and partial variable costs have been removed there should be relatively few true fixed costs to allocate.

Any allocation is going to be purely arbitrary, and it will be a matter of what best suits the nursery. Below are some of the methods used:

