

The Role of Propagation in a Small Specialist Nursery®

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When MacGregors Plants for Shade was set up as a small specialist nursery business, in-house propagation was the preferred method of production. External and internal factors led to a change in this policy and a greater reliance on purchased young stock. A recent review of the business resulted in a return to more in-house propagation.

ESTABLISHING THE NURSERY

MacGregors Plants for Shade was set up 10 years ago by its two partners as a small nursery business to fill what was seen as a gap in the specialist market. There was a need for plants for shade areas, and we aimed to supply a market consisting of amateur gardeners, professional garden designers, and small landscape businesses. Our market research resulted in a plant list designed to offer a wider and more unusual range of plants that could be grown in shade conditions.

From the beginning, we decided to control pests and disease using biological methods and established integrated crop management, with the support of company specialists, in three protected structures. Spraying with compatible crop-protection chemicals was kept to a minimum. Integrated crop management was used from the propagation stage through to the finished plant stage. The only exception to this was the inclusion of vine weevil control in the compost, a specified, general purpose, peat-reduced mix, which contained a percentage of loam and bark.

At the beginning the plant list was quite diverse, but with time and experience, it became clear that a more focused list was required. We found that our plants fell into one of three categories: plants that required full shade, those that required part shade, and those that performed best in light or dappled shade. We recognised the section of the list that gave most opportunity for innovation and experimentation with suitable plants was that defined by part shade.

Because of the scale of the enterprise, we only propagated in small batches. Propagation techniques were varied, and we judged success by the quality of the finished plant rather than the volumes we produced. We built a series of propagation facilities to provide for division, cuttings, and seed sowing. Plant types included shrubs, herbaceous perennials, ferns, grasses, and bulbous plants. Most of the propagation material was generated on site either from stock plants maintained for propagation or, where appropriate, material and seed from plants that remained unsold.

We bought-in as young plants only a relatively small proportion of our needs. As a general rule, this was only to fill sales requirements that could not be met by in-house propagation; for example, when crops failed, when advance sales commitments could not be met, or when it was more economic to buy in for plant range, as in the case of ferns.

DEVELOPING THE NURSERY

Over the next 7 or 8 years, sales showed a steady increase with the main selling season from March to June and further sales from September to November. Outlets

were determined by the specialist nature of the plant list and the size of the enterprise. They included other specialist nurseries, garden designers, small landscape gardening enterprises, and specialist plant sales events. The nursery was open to the public, and plants were regularly sold from the site.

An ongoing programme of lectures to horticultural and other related societies generated useful additional income during the winter. It also provided an opportunity to extend sales and introduce less well-known plants to groups of people willing to experiment with them.

Since one of the nursery partners had a background in education, contacts established with local colleges and other related organisations created additional opportunities for the nursery and provided a platform for continued education and support for the business itself.

We decided that part-time staff would be required to support further expansion. However, before this could be implemented, several successive external events caused a downturn in the plant market, which was reflected in our sales. Employing staff was no longer a short-term option.

Instead, we decided to extend the selling season, reduce the amount of in-house propagation, and increase the number of bought-in young plants. The extra time this made available would be used to increase marketing and sales. This had an overall benefit, but created other difficulties that only became apparent in the longer term. The plant list became more general and less competitive and lost its specialist identity. As in-house propagation decreased, it was becoming increasingly difficult to maintain a reliable source of young, less well-known plants that could be finished and offered for sale at a reasonable profit. Specialist plants did not generally have "impulse buy" impact, and as a small enterprise, it was not possible to gain from the benefit of scale both in terms of production and markets.

The horticultural industry and wider society had both changed, and we realised that it was time to re-evaluate the business in relation to current issues of environment, climate change, land use, competition, globalisation, specialisation, and lifestyle.

RE-EVALUATING THE NURSERY

We developed a new framework for the business over a period of time. We decided to consider plant production in relation to the whole site rather than just the nursery area. Growth was ring-fenced, production and sales contained, and we decided not to employ any staff. We re-focused the plant list back to predominantly plants for shade, with a higher proportion of the less well-known taxa. Volume sales were replaced by fewer but higher-value sales. Instead of purchasing young plants, we sourced stock plants from wider and more varied sources, which were then propagated in-house. Production became plant-based rather than commodity based.

THE PRESENT NURSERY AND CURRENT ISSUES

Although the nursery was only set up 10 years ago, it has developed against a background of rapid, significant, and in some cases irreversible change. Even a small business has to respond to developing local, national, and international issues.

The Environment, Climate Change, and Land Use. We now run the nursery as part of an environmental site. The whole area is surrounded by farmland and ideally situated for biodiversity enhancement. Native hedging has been planted and

areas of long grass and weeds managed to provide a reservoir for wildlife including natural predators. These should help to maintain a site pest/predator balance and help integrated crop management in the protected structures.

The effects of changing weather patterns cannot be ignored. Problems of local drought, late frosts, and widely fluctuating temperatures are increasing. The plant list has been modified to take account of site limitations. Generally, we now grow only those plants that can be successfully produced and maintained with little or no protection. Heating is restricted to propagation units only.

Tunnel use has become less intensive, with other areas of the site being used for production. Stock plants are maintained throughout the site, and we make better use of outbuildings for seed sowing, potting, and propagation. Water use is also under review, with greater emphasis on methods of conservation. No doubt difficulties will arise in the longer term, but we hope that better use of the site's assets will lead to a more economic production of good quality, healthy, robust plants that transfer well into customers' gardens.

Competition and Globalisation. The nursery, as set up, cannot compete in the mass markets. There is a place for intensive plant production that uses the benefits of scale, but this requires a much greater financial input, reliance on technology, and commitment to marketing, sales, and competition. MacGregors Plants for Shade has made its primary focus a much smaller and specialist market with a plant list that does not lend itself to large-scale production. This does not invalidate other markets or production methods. It simply fills a specialist niche using relevant methods of production to which in-house propagation is fundamental.

A greater selection of less common stock plants can be obtained economically in small numbers from a wide range of sources. By propagating these in-house, it makes far better use of existing assets in the form of the propagator's skills and propagation equipment. Effective and economic propagation also requires in-depth knowledge of plants, including structure, growth patterns, and natural habitats. Even if only small batches of plants are produced, there is no room for ineffective and wasteful propagation. Indeed, in the smaller enterprise, there is even less room for failure.

Specialisation and Diversification. Specialisation has been the nursery's strength and weakness. Clearly there is a market for specialist plants, but it is restricted by its very nature. We have put considerable effort into marketing, and here the Internet has an important role to play. However, there are no benefits of scale with regard to overheads and production cost. There are difficulties in economic acquisition and propagation of specialist plants. A greater proportion of in-house propagation does address the problem, but continuity can be difficult to achieve.

Like farming, running a nursery is a way of life, a chosen lifestyle. While plants themselves can be produced economically within a small enterprise, the lack of size cannot support overheads and growth. If the chosen lifestyle is to be maintained, then other methods of supporting overheads and growth have to be found, increasingly through diversification. The small specialist business can then focus on aspects of growing that can be of benefit to the nursery industry as a whole, but which are not necessarily measured in terms of financial success:

- The practice and maintenance of diverse propagation skills used in a wide and varied range of small-scale production.
- The passing on of those skills through education, training, and sharing.

- The introduction and promotion of a range of less well-known plants to a wider customer base.
- The trialling and assessment of a range of plants that could be recommended for the needs of the specialist buyer.
- The production of plants as part of an environmental management programme for the whole site.

Small specialist nurseries should not have to compromise on professionalism or quality in order to succeed. Diversification is one possible route that can be taken and explored in greater detail in order to maintain a position in this small but important part of the industry.

The Development of Sustainable Growing Media Components from Composted Specific Bio-Waste Streams®

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This paper describes a feasibility study into the preservation of plant structural remains, which can then be used as components of growing media for containerised plant production. The drivers for the work are both the need to use bio-waste streams rather than disposing of them to landfill and the need to find long-term sustainable components for growing media that have properties as beneficial as the peats currently used.

INTRODUCTION

Currently within the U.K. there are specific drivers that are challenging the use of traditional components of growing media used for container-grown plants on nurseries. The drivers for change come from a number of directions: E.U. directives on wetland habitat protection — and hence the desire to reduce the use of peats in growing media; E.U. directives to reduce the amount of compostable material going to landfill and finding alternative markets for the composted material; major retailer pressure to reduce reliance on the peat component of growing media in order to achieve national government aspiration targets for peat reduction and to reduce the impact of environmental lobbyists on the public perception of their business ethics.

In order to try to find suitable alternative components to the use of peats in growing media, attention has been focused on the use of composted materials. The process of composting materials in an aerobic fashion has been reviewed by many authors, for example, Lopez-Real (1990). The natural process is basically one in which various phases of degradation can be identified. The phases are characterised by changes in temperature of the decomposing mass, which relate to changes in micro-