

Experiences With Propagation Scheduling®

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INTRODUCTION

Propagation scheduling is allowing Lowaters Nursery to plan production to meet expected customer demand up to 5 years in advance, to high specifications, pest and disease free for an evershrinking sales window. Production efficiency and the ability to meet customer demand in terms of specification and delivery dates depends on getting the start of the process right.

At Lowaters we have learnt to work closely with our customers to provide them with the product quality they want and the level of service they expect. We are always looking to introduce new or different taxa to keep customers coming back. Our policy is to always let our customers know if there is a problem and to listen to them and learn about their methods and requirements.

Basic Questions. Before we begin to think about scheduling a crop we have to know some basic information:

- Can we grow the taxa?
- What is the turnaround time at each stage?
- What month will those stages be from start to finish?
- Will the material be there?
- If it isn't can we make the plan more flexible by starting it early?

Every member of staff is a quality checker. If a plug or plant is rejected because it is not suitable it will increase production costs for the whole crop. Quality is passed on down the line from cutting to finished plant. We offer our customers quality assured plants, which are clean, the best available, value for money, and supplied on time.

HOW SCHEDULES ARE ACHIEVED

Scheduling begins by planning every stage and working to a long-term strategy. Production is market driven which means schedules are generated up to 4 years in advance, from the time the sales manager enters the production requirements into a database system. Two software systems are used at Lowaters, these are Growmaster and Easy Schedule.

Growmaster is used for current stock control, sales orders and invoicing and is used in conjunction with Easy Schedule to monitor current stock levels and wastage at each stage of production.

On Easy Schedule, a growing template is created for each plant, pot size, target number, customer, and sales date. This system was created in 1998 specifically for Lowaters' needs and is still evolving as we gain experience with it. The database allows the management team to assess the impact of marketing plans on the available production space and revenue, on a month-by-month basis, providing early warning of space shortages so that decision making about extra growing space and expansion can be planned in advance and not rushed.

The Easy Schedule system currently covers some 1300 lines of data, each line represents a particular plant product and describes its production process with details of expected sales period, price, pot size, and company or market sector.

Reports from the database produce job plans for the staff at regular intervals so that we can focus on producing to the sales plan and the financial data used in sales forecasting. It is a vital part of the business planning that the production database looks far enough ahead to be an effective planning tool.

The production manager and supervisors monitor every aspect of the production process, so the situation "on the ground" can be compared with the schedule. For example, if a particular plant was not propagated at the time specified, the database will flag this up. The propagator can then discuss with the production manager the next course of action — for example, the propagation date can be moved to the next month, or cuttings can be double stuck to produce a heavier plug, or the sales date may have to be put back. If this is the case the sales manager would be informed and if that was acceptable the database would be changed.

In the past we would accommodate losses during the production cycle by propagating a standard 15% extra of every taxa. This was resulting in overproduction and unacceptable wastage figures. Now we have data on every plant and the database includes the realistic percentage of production losses we have to plan for, so we no longer over propagate. It is important to remember that any database system is used only as a guide, not as a bible. Experience and flexibility is vital to make sure batching of plants is continuous so that the sales manager has the full range of product coming through to offer customers and maximise sales.

Planning is vital for new introductions as well as current production lines. We have a plan of all hebe taxa 7 years in advance so we know exactly the numbers we are planning to do. This is reviewed regularly so that new cultivars do not clash and the bulking up of each cultivar is on schedule. Scheduling also allows us to change our selection every few years so there is always something different to offer customers.

THE IMPORTANCE OF STAFF

Accurate scheduling is only possible with the correct staff and management structure. Lowaters Nursery has gone through some fundamental changes in the last 5 years to cope with its continuous expansion and to improve its efficiency and profitability. There are three major sections on the production side: propagation, young plants, and finished plants. Each staff member will have responsibilities for an area of the nursery and each section has a supervisor as well as the overall production manager.

Lowaters uses the Investors in People scheme and this drives the business to train all staff to ensure they are confident and competent in all aspects of their work. All staff have training plans which should coincide with the company's skill matrix, so all staff will be competent to NVQ (National Vocational Qualification) Level 2 in the relevant elements. A number of full-time staff have completed the whole standard.

FUTURE DEVELOPMENTS

All aspects of the production process and staffing structure are periodically reviewed. The two main priorities are:

- Expanding the competence of supervisors to take more responsibilities within production and personnel management.
- To find a way of linking data in the production database and our Growmaster stock control program. Until this is achieved managers need to use both systems in order to be fully in control of which plants to pot on in order to fulfil customers orders.