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**Forum: Are Stock Beds Being Abused?®**

Discussion led by Nichola Rochester

**THE IMPORTANCE OF STOCK BEDS**

The range of stock bed types currently in use is broad. Stock beds can be maintained in the open ground, in containers, or current production could be a “stock bed”. Using a show of hands it was determined that 37% have stock beds that provide less than 50% of total production, 63% have stock beds that provide more than 50% of total production, and 17% have stock beds that provide more than 90% of total production. This result showed that taking your own cuttings and the use of on nursery stock plants was significant. A written plan to manage your cutting production and stock beds is an important tool, which many are utilising. The reasons for this dependence on your own stock plants included convenience, flexibility, timing, availability of uncommon taxa, greater certainty about being true to type, reliability, and perceived cost savings. Those that had decreased their stock beds gave reasons of lack of nursery space, time, and cost in maintaining stock beds, improved overall cost control, and management. The impact of future changes to the tax laws concerning asset valuation of nursery stock could also have a large effect on stock beds. A suggestion that liner nurseries could offer a true-to-type guarantee for their product was received by many with interest.

**STOCK PLANTS AND STOCK BEDS**

An alternative to stock beds and retaining the ability to take cuttings is the use of production stock on hand as stock plants. Plants in general production have the advantage of high nutrient status, juvenility, and continued turnover. Problems with these stock plants include lower volumes, more limited range of taxa, and the requirement for good planning. The taking of cuttings may be dictated by when plants are timed for sale. Some plants are not suited to containers and the use of production stock plants is not an option. Stock beds have the advantages of high volume cutting production and planning needs to be less precise. Stock beds can be

forgotten about and neglect can be an issue. It is advisable that the management of stock beds is a specific area of responsibility.

### **STOCK BED MANAGEMENT**

Stock beds can easily be forgotten about and perhaps ultimately abused. Plants can become large and difficult to control. There are costs involved in stock beds although perhaps minimal and not immediately obvious. What about the time involved in collecting cuttings? Do you know the value of a stock bed? Do you really need that stock bed? These are just some of the questions a written management plan can address. In general, many stock beds are not grouped and maintained well or located on sites that are best suited for the species. The age of stock beds is another consideration, which requires a strategy for a longer-term replacement programme. The management of stock beds should aim to maximise the potential for cutting production. This begins with selection of the appropriate plant material as stock material and continues with the maintenance of the stock bed environment to provide source material with the correct physiological status and at the right time in the season for the taking of cuttings. Careful management of stock beds will contribute to a higher percentage of cuttings taking root and more plants for sale.

### **QUALITY CUTTING PRODUCTION**

There is general understanding that quality cuttings increase the probability of quality plants for sale. To achieve a quality cutting, a healthy, vigorous mother plant is needed. This discussion has highlighted that stock beds and stock plants are not managed as well as they might be and this makes the aim of quality cuttings much more difficult. Grading is a useful tool to produce quality cuttings. It is recommended that grading start as early as possible, ideally at the stock plant. The significance of grading cannot be over emphasised. One strategy would be to actually to grade your mother plants. It should be remembered that production costs begin with the taking of cuttings, so you should set a goal of as many first-grade cuttings as possible. Give some thought as to how you achieve maximum first-grade cuttings. Do you know if second-grade cuttings produce first-grade plants or if second-grade cuttings are ultimately profitable?

### **MATCHING THE STOCK PLANT WITH THE TYPE OF CUTTING**

The quality of a cutting is related to the quality of the stock plant. The cutting needs to have sufficient reserves to allow survival until roots are produced. The mother plant provides all reserves to the cutting, which means that the mother plant should be adequately provided with the appropriate water, light, air, temperature, and nutrition requirements. Nutrition, in particular nitrogen and carbohydrate have an effect on rooting potential. High carbohydrate levels in hardwood and semihardwood cuttings are usually associated with increased rooting potential. A similar relationship exists between high nitrogen levels and increased rooting potential for softwood cuttings. The nutritional level of the mother plant influences the nutrition status of the cutting, and in turn influences root initiation and development. For hardwood and semihardwood cuttings, the stock plants should have low to moderate nitrogen levels, with excessive vegetative growth undesirable. This could be encouraged by root restriction using hedgerows or containers. The management of the stock plant should encourage lateral shoots rather than terminal shoots. The needs of a stock plant

producing softwood cuttings are different. In this case, high nitrogen levels are desirable for the mother plant and strong vegetative growth need not be discouraged. The type of cutting taken from the stock plant will determine what sort of management regime will be applied to the stock bed. Consideration should be given to the longer-term effects of specific management regimes. An example is weed control using glyphosate herbicide around stock beds. It was reported that over time there is an indication that cuttings taken from these beds have decreasing rooting potential.

## **SUMMARY**

At the conclusion of the discussion the main points were collected.

- 1) Stock beds and stock plants are valuable and contain the reserves of plant material that are potential profit.
- 2) Quality plants begin with a quality cutting from healthy, well maintained stock plant or stock bed.
- 3) The management of stock plants should aim to maximise the production of as many first-grade cuttings as possible.
- 4) A stock plants physiological and nutritional status influences a cuttings potential to initiate roots.
- 5) If it is not possible or you do not wish to manage and maintain your stock plants and stock beds at a high standard of quality then purchase your cuttings from a nursery that does.