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MICROPROPAGATION: WHY WYEVALE NURSERIES TOOK THE PLUNGE

JAMES MATTOCK

Wyevale Nurseries Ltd.

Kings Acre, Hereford

In early 1988 Wyevale Nurseries entered the field of plant micropropagation by setting up a small self-contained laboratory next to its existing propagation facilities. This unit consists of a Portacabin with internal fittings supplied to our own specifications. It is divided into three areas:

1) The main work area comprised of a laminar air flow unit, media preparation area, and sink,

2) Growth room

3) Changing room that doubles as an airlock avoiding direct introduction of air, dust, and people from the outside.

We decided to go for a purpose-built unit because we believe this will reduce the chances of cross contamination and help us run a small lab efficiently. This will leave us more time to consider plant growth problems and thus reduce the lag time between start up and full production which many labs have encountered.

At present Wyevale Nurseries produce 20 acres of field-grown stock and 1.7 million container plants. The lab was set up not so much to dramatically increase these figures, but primarily to enable us to fill gaps in our present propagation schedule. These gaps are mainly existing crops we are unable to produce in large enough quantities, being either slow growing or requiring large numbers of stock plants to get sufficient propagation material.

Micropropagation thus offers an excellent method for mass production, programmed sequential cropping, and the bulking up of new plant introductions. The author remains to be convinced, however, that crops that are difficult to produce by traditional methods will be any easier by micropropagation—quicker, perhaps, but not necessarily easier. It is for this reason that a reasonable period has been allocated for experimental work before production.

Plants coming out of culture will be weaned and grown on at Wyevale within the present production program, by using available skills and thus closely linking micropropagation to established horticultural practices. For example, we have been using a large fogging unit in the propagation department for 2½ years and have gained experience in handling it and the plants going in and out.

Although we have not yet reached the rooting stage, we are planning that plants coming out of culture, with or without roots, will go into a fogging unit separate from traditional cutting material. From there they will be hardened off and grown on in a separate area before going for potting into 9 cm plastic pots and entering the liner stage along with conventionally produced crops.

At present, weaned micropropagated crops bought in from other producers enter the system at the potting stage and experience gained with these will be applied to our own crops.

In summary, Wyevale Nurseries has found a niche for micropropagation within its present production structure. This may develop into other areas in future, but for the time being we are content with getting to grips with this technique and endeavouring to integrate it with our existing nursery practices.