they are field-lined. From my experience so far, whilst the maples make good growth under polythene, they do it in flushes which are erratic. It is, therefore, difficult to get a good, even crop. One important point is to make sure when potting the grafts on, that they are actively growing because then they will continue to do so. If growth has stopped it appears that the plant has to have a rest period before it recommences growth. As can be seen, this method offers a practicable alternative to field-budding for those who have the facilities. A better take (i.e. 90%) can be achieved with grafting than with field budding and whilst bench grafting and subsequent growing-on under protection may be expensive, so are the gaps caused by bud failures in the field. How often do we see a drift of *Acer platanoids* with the few *A.p.* 'Crimson King' or *A.p.* 'Drummondii' trying to fight their way up between them. With the bench grafts they can be graded and a 100% crop lined out in the field.

CONTAINER-GROWN TREES

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There are at the outset two major subdivisions to be considered; (1) production under protected cropping — whether it be glass, polythene or woven materials and (2) in the open.

Protected cropping. Possibly the advent of the woven materials gives cause for optimism. The growing environment on a hot day for humans, at least, is more agreeable than under polythene and it is reasonable to believe the plants, too, are under less stress and also that growth would be less drawn. These materials also offer a slight amount more protection from frost damage than does polythene. Polythene with it's very quick temperature build up, particularly in the early months of the year, constantly causes anxious moments when slow-release fertilizers are incorporated in the compost. To alleviate these risks, either a reduced rate of fertilizer is added to the compost, or it is eliminated entirely, depending only on regular liquid feeding. Glass can be ventilated, as can a newer type of polythene structure, which will limit the higher temperatures of polythene, but the plants can still be at risk. I would still advocate no slow-release fertilizer but rely on regular liquid feeding to be a safer alternative.

Irrigation under polythene structures is not a simple matter due to the inevitable underwatering and overwatering where overhead nozzles are used. Sand or matting a standing base will tend to even out the water application but allowances must be made for excess water to drain out of this base, possibly sloping the base towards the central path. As a further consideration, polythene tubing, e.g. Layflat or Seephose could also be used to apply the water at the higher point sallowing for the water to saturate the base, but again ensuring that surplus water can drain away.

Growing in the Open. Here another point must be considered — that being support for the plant. Yet another point is the matter of access for standing out and removing plants for sales. One would advocate a double-row system enabling access to two rows of plants, the simplest structure being posts and wire. Enough plant support can be provided with one wire at about 4′. When danger of frost has gone, one can transfer the plant from the protected area to the outside area. This is a logical time to also pot the plant on, potting up into a 7″ to 9″ container, depending upon the plant. Here the standard rate of slow-release fertilizer should be used. A cane should also be added to provide some support to the plant. This cane is securely attached to the supporting cross wire.

There are various ways to consider irrigating these plants.

1. A sprinkler system can be used but it is inevitable that allowing for access areas and plant spacing that a high percentage of water will miss the pots, possibly even up to 80%. I believe other methods should be considered as it cannot be certain the container is receiving sufficient water.
2. The conventional low-level trickle system, with a spaghetti supply tube to each pot, can be considered as supplying the water, with no waste, exactly where it is needed. As a modification of this method the supply pipe could be suspended above the container with a jet provided to each container position.

We have used this method for three years now. There is one storage tank, a 1½ H.P. pump which supplies the water to a 2″ main and sub-mains; the latter feeds directly into each of the trickle lines of ½″ bore and the jets spaced at every 12″ along these lines. This can be operated either manually or set on the time clock. The application rate is about 5 pints per hour and 10 minutes per day. Even in the hottest weather this has been sufficient to maintain the plants in optiumum growing conditions. One further practical consideration is that weed growth is low in both container and in the growing area.