

Propagation of Hibiscus by Grafting

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INTRODUCTION

This paper covers grafting of *Hibiscus syriacus* cultivars 'Oiseau Bleu' (syn. *H. syriacus* 'Blue Bird'), 'Hamabo', 'Meehanii' (a variegated cultivar), 'Monstrosus', 'Red Heart', 'Woodbridge', and 'William R. Smith'. Grafting allows the production of a saleable hibiscus plant in full flower in less than a year, whereas, production from cuttings can take two to three times longer. The method described might be applied to other species such as *Lilac* and *Viburnum*.

METHOD AND MATERIALS

The scion wood is collected in December from our own stock plants. 'Meehanii' stock plants are grown under polythene to provide enough scion wood for the large numbers grafted.

At New Place some 20,000 English-grown *Hibiscus* root stocks are bought in as 2-year-old seedlings and cold stored until required for grafting in January.

Graft Preparation. The rootstocks are topped and tailed—with the stems cut off through the hypocotyl—so that the whole of the root fits in the pot it will eventually end up in.

The top of the rootstock is then prepared by taking a thin sliver off the top of the stock to leave a clean and smooth surface. A grafting knife is then driven vertically down through the centre of the top of the stock for approximately 2 to 3 cm to give a clean split to receive the scion.

Scion material should have four buds with enough room at the base to make a wedge. Two cuts are needed, one on each side of the scion to create a wedge of about 2 cm. This wedge is then inserted into the top of the prepared root. If the scion is similar in size to the rootstock, it is put in the middle, if it is smaller, it is put to one side so that it gets maximum cambium contact. The graft is tied with a Rapidex tie (blue 0.5 mm thick, 140 mm long, 3.5 mm wide). The graft union and scion is then dipped in wax (paraffin wax with a melting point of 46C kept at 70C) and wrapped in a damp hessian on a trolley for transport to the heated healing-in bed.

Heated Bed. The heated bed is a simple construction using the heated floor of a propagation glasshouse, Mypex is laid down to keep the sand that covers the floor of the propagation house clean. A 45-cm-high frame is then constructed. The grafts are laid into it in rows with damp peat covering roots and graft unions. Depending on their development grafts will stay here for 4 to 5 weeks. The under-bed heating is run at between 12 to 14C to induce rooting and callusing around the graft union. When new white roots appear, and a good light green line of callusing is visible around the graft union, they are ready for potting.

Potting and Aftercare. Compost mix per 450 litres of peat:

Ficote 140 16:10:10	1.0 kg
Single super phosphate	0.25 kg
Magnesium limestone	0.7 kg
Frit trace elements	0.15 kg
Suscon green	0.3 kg

Hibiscus prefers an open peat with a high AFP.

The *Hibiscus* grafts are potted into 1-litre “long-tom” pots, and then stood down in polythene tunnels.

Correct watering is essential. Grafts must be kept reasonably dry at the start until the roots grow to the side of the pot. At this stage, watering is slowly increased and by midsummer the grafts will need a considerable amount of water. Early watering can result in roots rotting, an increase in liverwort and mosses, and possible graft flooding.

FINISHED CROP

The first orders are despatched in the beginning of August when they are fully in flower. It is at this point that the Rapidex ties can be removed. Ties stay on this long because they are under compost. Any plants not sold at this stage (midsummer - autumn) will be graded, pruned, and over-wintered. In the spring they will have better branching and become a very saleable first grade plant.

Aphid and white fly have been the only real pests but are easily controlled—the aphid with Ambush C and Pirimor; whitefly with the biological control agent, *Encarsia formosa*.