

PROPAGATION OF SOME SHRUB ROSES BY GRAFTING AND BY CUTTINGS

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Rosa bracteata 'Mermaid' is usually grafted in winter as it fails to summer bud with a physically sound union in the field, while *R. banksiae* 'Lutea' is too tender for field exposure. *R. moyesii* 'Geranium' and *R. holodonta* 'Maidwell' have low bud takes in the field.

Grafting. Seedling *Rosa canina* of broad caliper and with long hypocotyls suitably straight, are selected from imported rootstocks on arrival, and potted into 3½ inch pots with the full length of the hypocotyl exposed. The pots are plunged in a sand bed for the rootstocks to establish for a year, when management is confined to some watering and weeding. The thickening of the hypocotyl during the growing period is minimal.

In early January the rootstocks are removed from the bed and the roots and tops are trimmed, and then they are placed in a grafting pit, using some bottom heat to dry them off for working in late January.

Scion wood of 'Mermaid' and 'Lutea' is collected mid-December from stock plants in a cold house, the others from outdoor plants. It is essential, especially with 'Mermaid', to select out fully mature material, and to discard thin or unripened material. Suitable scion wood dethorns fairly readily and with any defoliating is reduced to suitable lengths for bundling and storing upside down in a sand heap until required.

About the last week of January grafting may commence when the buds of the rootstocks begin to burst. The scion wood is washed clean of sand and allowed to dry, and reduced to 3 or 4 bud portions for bench working. Rootstocks from the pit are beheaded below the branches and worked with whip and tongue or side graft. The completed grafts are tied and waxed and returned to the pit for flooding. With a bottom heat of 75 °F, and high humidity maintained by a polythene drape and further watering, the grafts break bud in 2 or 3 weeks and, after a similar interval, the bottom heat can be reduced and gradual airing introduced. On completion of hardening off, about mid-April when the shoots are 2 or 3 inches long, the grafts are potted on and initially grown under glass.

The success rate by grafting can be very high; the essence being the selection of scion wood (particularly for 'Mermaid'), and many modifications of the above account are available. The state of the moisture content of the pot at grafting is not critical, nor the bottom

heat figure. Probably bare-root working is practicable if understocks are available at the appropriate time; the scion wood need not be visibly dormant for successful working.

Cuttings. 'Mermaid' and 'Lutea' root readily from cuttings during late summer (July to September) using, in 'Mermaid', non-grafting material, i.e. thin floral shoots, when ripe. A dip in Seradix is beneficial for conventional cuttings or leaf-bud (in 'Mermaid') and rooting occurs in 3 or 4 weeks under mist.

However, cuttings of 'Mermaid' lack the robust quality of grafts although of similar rates of growth and flowering a few days earlier, and more freely, but this method is not recommended. 'Lutea' propagated from cuttings produces plants comparable to those grafted by time of sale.

Grown under fairly low temperatures some weeks after grafting, i.e. during March, 'Mermaid' may shed its leaves from the young shoots, but without fatalities occurring. This condition is never apparent in cuttings under similar conditions of temperature, and rarely so where growing on temperatures are high (65° F) in grafts

Pests are usually limited to aphids during propagation, and sometimes voles in hard weather. 'Geranium' and 'Maidwell' are singularly free of diseases, while 'Mermaid' is occasionally susceptible to mildew.