

## The Genus *Skimmia* and its Production at Hadlow College

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### INTRODUCTION

*Skimmia* is the most important ornamental genus of hardy, woody plants in the citrus family (Rutaceae) and ranks highly amongst woody evergreen shrubs for park and garden culture. Only one species, *S. japonica* and its subspecies *reevesiana*, are of commercial ornamental horticultural significance. The three other species (*S. arborescens*, *S. laureola*, and *S. anquetilia*) are mainly of botanical interest, although the hybrid *S. ×confusa* (*S. anquetilia* × *S. japonica*) is of distinct horticultural merit.

Skimmias are fairly slow growing, of compact habit, tolerant of most soil types, and do best in partial shade. Male clones are grown for their flowers. The terminal panicles, usually creamy white, sometimes tinged with pink, are often fragrant. Female and bisexual clones usually have smaller flowers but are followed by clusters of brightly coloured red fruits which persist throughout the autumn and winter months.

### PROPAGATION BY CUTTINGS

**Source of Cutting Material.** At Hadlow we have found it preferable to select semiripe wood cuttings from container-grown stock. The quality of cutting material from field-grown stock plants, particularly once the plants are a few years old is not as good.

**Timing.** Currently at Hadlow, propagation takes place around Weeks 39 or 40, fitting in with the propagation of other evergreen shrubs. *Skimmia* is not a difficult plant to root and as long as the wood is reasonably firm they can be propagated at almost any time of the year, in our experience.

**Selection and Preparation of Cuttings.** We select material with firm wood, not too thin, and without flower buds. Cuttings are prepared by removing leaves to retain three to four in the terminal cluster. These may be reduced in size if fairly large. The stem should be 6 to 8 cm long and a 1.5-cm slice wound is made at the base of the stem.

**Hormone Treatment.** We have used 0.8% IBA in talc with good results.

**Rooting Medium and Container.** Our propagation mix consists of: 1 bale fine grade moss peat; 2 bags fine grade pine bark; and 2 bales shredded rockwool. Thorough mixing, together with wetting, is required to ensure the rockwool is broken down and evenly incorporated. Quickpot 77 cell trays are used and careful filling is required to ensure media is evenly firmed into each cell.

**Propagation Facilities and Aftercare.** After watering in, the cell trays are placed on a wet sand base heated by hot water pipes to maintain a basal temperature of 20°C. A low polythene tent is constructed using a hoop framework which means the polythene is around 10 cm above the cuttings. Rooting takes 6 to 8 weeks and by Weeks 49 to 50 the plants are weaned from the polythene and overwintered in a frost-

free greenhouse.

### PROPAGATION BY SEED

At Hadlow we propagate the bisexual *Skimmia japonica* ssp. *reevesiana* from seed. It comes true except for the occasional seedling which is all male — in my experience the proportion of these is less than half of 1%. This is probably caused by a mutation rather than crossing with *S. japonica* ssp. *japonica* as the characteristics of the seedlings are completely *S. reevesiana* except for flower size. Named male clones which have undoubtedly arisen this way are 'Bronze Knight', 'Fata Morgana', and 'Ruby King'.

**Source of Seed.** The ideal source of seed is to have a few specimen plants in 10-litre containers that can be isolated from other skimmias at flowering time, possibly in a glasshouse or tunnel being used for an entirely different crop, to avoid cross pollination with other forms of skimmia.

**Collection and Processing.** As soon as the fruits become fully ripe they can be collected, under protection this would be around Weeks 40 to 42. The fruits are then pulped down and the quite large seeds (there are up to four per fruit but usually two or three if the plant has a good crop) are fairly easily separated by flotation. The seeds are spread out on newspaper to surface dry which, in an airy building, will only take 1 or 2 h.

**Treatment and Sowing.** *Skimmia* seed just requires a cold period to ensure germination. Seed is sown in conventional seed trays (150 seeds per tray). The medium is peat, fine grade bark, and perlite (2 : 1 : 1, by volume). The trays are filled to the brim and the medium then pressed down by 1 cm. After sowing, the seeds are lightly pressed into the medium and then covered with a layer of 5-mm crushed grit to the brim of the tray. The trays are then stood down in a cold glasshouse to expose the seed to a natural cold period over the ensuing winter.

### PRODUCTION OF 9-CM POT LINER

**From Cuttings.** Rooted cuttings are potted off in Weeks 11 to 12 and stood down using carrying trays in a cold glasshouse. After the first flush of growth has hardened up, normally Weeks 25 to 26, the shoots are pruned back to leave stumps of between 3 and 4 cm. The wood must be quite firm when you do this, otherwise die back can occur in shoots. After pruning, a fungicide spray of Octave (prochloraz) is applied to help reduce fungal infection. This pruning back will encourage more shoots from low down, ensuring a good bushy liner.

**From Seedlings.** As soon as germination takes place, usually Weeks 11 to 12, seedlings are pricked off into 9-cm containers and stood down as for the cuttings. Care must be taken not to give them the same watering regime as the cuttings. Once established and growing you will need to pinch out the tips around Weeks 15 to 16 to encourage side shoots.

### PRODUCTION OF 2- AND 3-LITRE PLANTS

The following winter, in Weeks 2 to 10 depending on scheduling, 9-cm liners of most cultivars are potted into 3-litre containers — use 2 litres for the slower growing sorts. They are placed pot thick under Dutch light glass. After the first flush of growth has hardened up, usually Weeks 22 to 24, they are moved out into shade tunnels and stood



down with adequate spacing.

The most important pest problems are vine weevil, carnation tortrix moth, and two-spotted spider mite, which need to be dealt with appropriately. Weed control is with Ronstar 2G granules at potting, followed up with Flexidor spray later on. Growing under shade is vital to maintain good leaf colour.

### COMMERCIAL POTENTIAL

The male clones, especially the cultivar 'Rubella', are grown in large quantities already and they flower well in 3-litre containers at a good time of year for retail sales. They make good tub and patio plants for partial shade.

There is much more scope with the female clones but it takes another season on the nursery to produce plants in fruit. This is relatively easy to achieve by potting on into 5-litre containers for another season but the extra costs then mean it is becoming an expensive plant for the customer. An accelerated glasshouse production programme could produce berrying in the second season.

### CULTIVARS WORTH PRODUCING

*Skimmia* × *confusa* 'Kew Green', male form, with large fragrant creamy coloured flowers;

*Skimmia* 5*confusa* 'Isabella', female form, not too free with berrying, but excellent foliage even in the open.

*Skimmia japonica* 'Fragrant Cloud', superb male clone, with fragrant white flowers;

*Skimmia japonica* 'Emerald King', a new male selection from Boskoop research station, light green in bud;

*Skimmia japonica* 'Red Dragon', the largest flowers I have seen on a female clone followed by well displayed fruits;

*Skimmia japonica* 'Rubella', the standard red-budded male clone;

*Skimmia japonica* 'Scarlet Dwarf', good compact female clone displaying its fruits well;

*Skimmia japonica* Rogersii Group 'Snow Dwarf', good compact male clone, low-growing repens type;

*Skimmia japonica* 'Stoneham Red', this I think is the best red-budded male clone;

*Skimmia japonica* 'Tansley Gem', perhaps the best compact low-growing female clone;

*Skimmia japonica* 'Wakehurst White', more vigorous than some white-fruited female clones, looks good at Christmas time;

*Skimmia japonica* 'Bronze Knight', usually classified under *japonica* ssp. *japonica* but to me looks like a male form of *reevesiana*, good grower with bronze tints in the flower buds;

*Skimmia japonica* 'Ruby King', a large-flowered red-budded male clone of ssp. *reevesiana*;

*Skimmia japonica* ssp. *reevesiana* 'Chilan Choice', makes quite a large bush, dark bronzy foliage with large red fruits;

*Skimmia japonica* ssp. *reevesiana* 'Robert Fortune', the original introduction of *reevesiana* grown on the continent as a fruiting pot plant, seems to lack vigour nowadays, possibly because of selection for heavy fruiting. Plants at Wakehurst Place, growing outside, however seem to have more vigour.