

Propagation and Field Production of *Daphne xburkwoodii* 'Somerset' and 'Carol Mackie'

Victor Swanson

Arcola Creek Nursery, 2452 Dock Road, Madison, Ohio 44057 U.S.A.

Daphne xburkwoodii is a cross of *D. caucasica* × *D. cneorum*. The place of origin was the nurseries of Burkwood and Skipwith, Kingston-on-Thames, England, about 1935.

A versatile shrub, the extremely fragrant flowers are creamy white flushed with pink, ½ inches in diameter, and forming dense terminal clusters about 2 inches in diameter. The foliage is semievergreen, I have observed mature plants, depending on the severity of the winter months, retain their leaves for the duration of the winter in northeast Ohio.

'Somerset' was patented in the U.S.A. on 28 Feb 1939, by Wayside Gardens, which at that time was located in Mentor, Ohio.

A beautiful clone of *Daphne* 'Somerset' is 'Carol Mackie' which has cream-edged leaf margins. Both plants can reach 4 ft tall and 6 ft across with a very round and dense growing habit. Plants respond well to pruning.

Although *Daphne* taxa are exquisite and very hardy (-30F, University of Maine's display garden) they are sometimes overlooked in the nursery industry due to degree of difficulty in propagation, and sensitivity to overwatering and heavy soil conditions.

Unlike many other deciduous species, 'Somerset' and 'Carol Mackie' root most successfully from semihardwood cuttings. Terminal shoots from mature wood taken during the months of August and September are prepared with a wound to promote callus tissue, and dipped in Hormodin #3, a talcum-powder-based indolebutyric acid product of 0.8% active ingredients. Caution must be taken in stripping the cuttings. Due to the stringy nature of the stem, leaves should be individually plucked upwards to insure a clean, sturdy stem.

Cuttings are stuck in 38-plug trays measuring 5 inches in depth. Space to allow for air movement is critical to prevent *Botrytis*, gray mold, and stem rot. A well drained mix of Canadian peat, perlite, and concrete silica sand (5 : 5 : 2, by volume) provides adequate aeration and drainage.

Once placed in the greenhouse, water is closely monitored during the rooting process. Like poor air movement, excess water will also contribute to a host of disease problems. Periodic applications of fungicide and removal of diseased leaves make for a clean environment. During sunny days, mist is regulated on 30-min intervals for 15 sec. Similar to evergreens, moisture retention is high and water requirements are minimal. Rooting occurs in approximately 6 weeks.

Cuttings are then weaned from mist. The newly rooted cuttings are overwintered in heated polyhouses at 38 to 40F.

The following spring, the cuttings are potted in tree bands measuring 2¾ inches × 5½ inches. *Daphne* taxa are generally deep-rooted plants that require a larger pot to accommodate their habit of growth. A well drained soil mix with plenty of sand and perlite is imperative to insure a good stand. This interim step helps to establish the plant both in size and caliper. During the growing season, liquid fertilizer is applied every 14 days along with occasional pruning to establish lateral branching.

Pots are overwintered in minimum heat polyhouses.

If *Daphne* could have their way, they would rather be in a field of sandy-loam or gravel. Good drainage is a must which makes container production difficult but not impossible. The 2-year potted cuttings are hand planted in 4-ft field rows to be grown to finished plants. An application of 20N-6P-12K fertilizer, cultivating, and hand hoeing is done during the growing season. No herbicides have been used to date although we are experimenting with some preemergents. No damage has been detected thus far. Each plant is staked and tied for the duration of the winter to prevent breakage due to snow loads.

During the 2nd year of field production, established *Daphne* explode with growth. After judicious pruning, the plants begin to take on a round and dense growth habit. By the end of the growing season the majority of the plants will be full bodied and 24 to 30 inches in height. Plants are once again tied to prevent snow breakage. We are ready to harvest!

A balled and burlapped *Daphne* 'Carol Mackie' is ready for sale. Plants can be successfully harvested in spring after leaf buds have swelled, or in fall after growth has hardened off.

Daphne 'Somerset' and 'Carol Mackie' make wonderful landscape plants either as specimens or planted in mass as shown here. Placed near an entrance of high traffic area, the sweet aromatic fragrance, rich evergreen foliage, and dense growth habit will enhance any landscape. Truly a conversation piece!

LITERATURE CITED

- Dirr, M.** 1983. Manual of woody landscape plants. Third Edition. Stipes Publishing, Champaign, Illinois.
- Padua, J.** 1995. Propagation of *Daphne xburkwoodii* 'Carol Mackie'. Comb. Proc. Intl. Plant Prop. Soc. 45:499-500.
- Wyman, D.** 1969. Shrubs and vines for American gardens. Revised Edition. Macmillan, London.