

# Shrubs That Can Be Greenhouse Forced

These varieties are options for the spring and early summer market.

by ALLAN M. ARMITAGE

LAST month, I sorted many common shrubs into “ease of forcing” groups, based on characteristics such as their visual impact in a container to disease problems.

To review, the first three were:

**Group 1:** Would not fit into a mixed container program for the spring. These include those with no

outstanding features to their foliage (Forsythia ‘Golden Peep’) or susceptible to disease (Philadelphus ‘Manteau d’Hermine,’ Mock Orange). Since flowers were only formed on next year’s growth, forcing for flowers was out of the question.

**Group 2:** Will work for a spring program, but with numerous problems such as poor form, inconsistency of growth or flowering (sun rose) or unstable variegation (variegated Mock Orange).

**Group 3:** Plants that work, but will require a bit more time, more marketing, etc. These are excellent but generally slow (abelia, hydrangea paniculata).

**Group 4:** The last group consists of plants that are easily forced and catch the eye. This group proved to be the most uniform, most colorful and most appealing to the eye of the consumer.

We determined the need, if any, for cold for all the shrubs brought into the program and sensitivity, if any, to photoperiod for many of them. Rooted liners in 32



Sambucus ‘Black Lace’

Weeks in cooler z	Weeks to finish	Height above pot (in)	Width (cm)	75% fin by (wks)
0	did not finish	4.8 b	23.8 b	never
6	14 ay	7.6 a	37.3 a	16.5
8	10 b	8.0 a	41.2 a	9.5
10	10 b	7.7 a	38.8 a	9

z 34-37°F  
y values followed by the same letter are not significantly different at p=0.05

tray packs were subjected to 33°F to 37°F in coolers for zero, four, six, eight or 10 weeks. Photoperiod treatments (LD or SD) were provided after the plants were removed from the cooler, planted in gallon containers and placed on the bench. The research was conducted on many taxa over a period of three years. No growth regulators were applied.

### Quick Guide To Group 4 Shrubs:

**1. Leycesteria ‘Golden Lanterns’:** An exceptionally bright golden shrub with eye Himalayan Honeysuckle appeal.

**Comments:** Cooling is not neces-



Leycesteria ‘Golden Lanterns’

Weeks in cooler z	Weeks to finish	Height above pot (in)	Width (in)	% death or damage to foliage
0	15 ay	7.3 a	16.0 a	0
6	11 b	7.8 a	14.6 a	1
8	10 b	7.0 a	16.2 a	17
10	9 b	7.7 a	15.3 a	42

z 34-37°F  
y values followed by the same letter are not significantly different at p=0.05



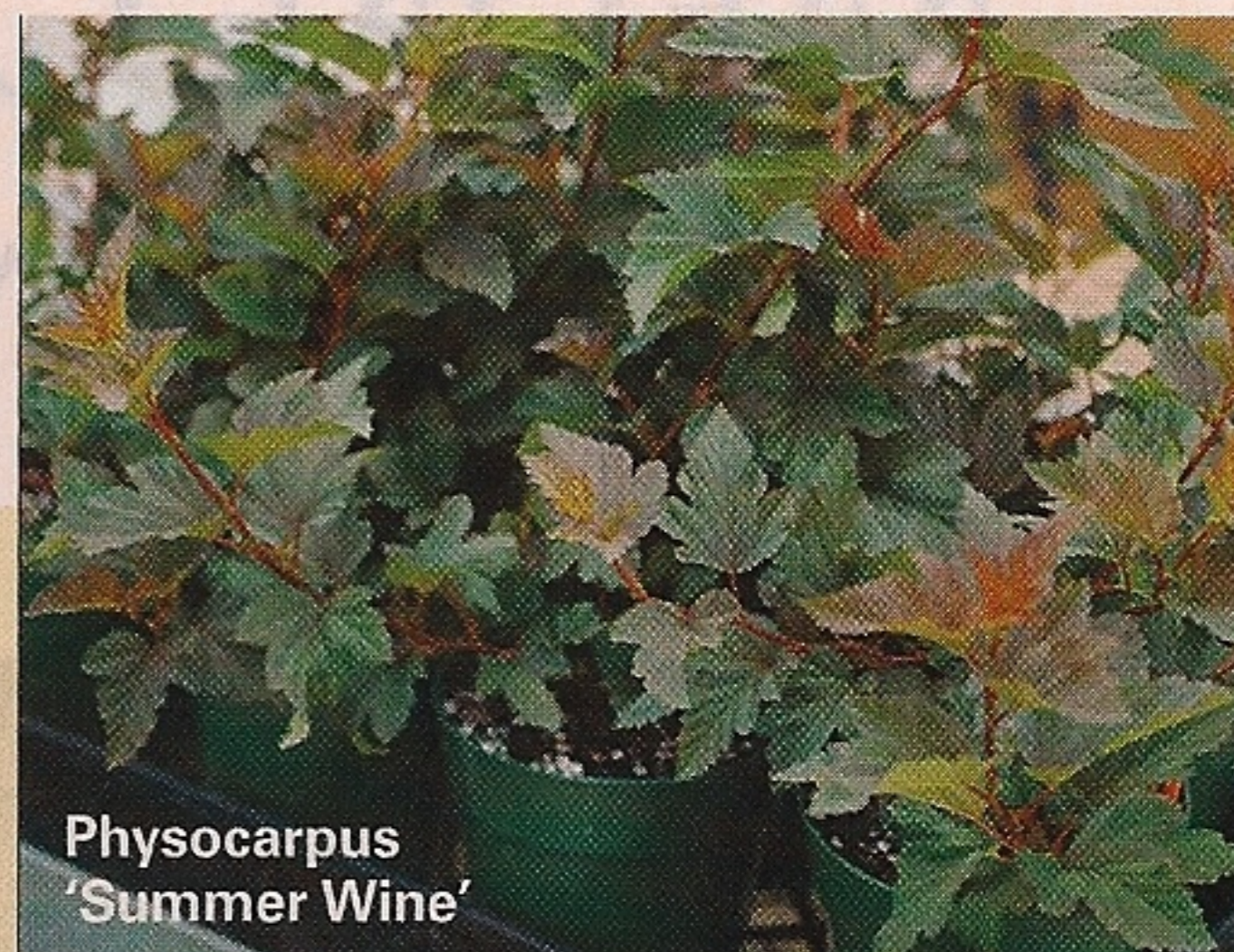
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**Physocarpus**  
*'Summer Wine'*

Weeks in cooler x	Weeks on bench	Height above pot (in)	Width (in)
0	23 ay	8.4 b	16.0 c
6	14 b	12.0 a	18.8 b
8	12 bc	11.5 a	19.9 b
10	11 c	12.4 a	24.3 a

z 34-37°F

y values followed by the same letter are not significantly different at p=0.05

sary, but limited cooling reduces time on the bench. Cooling more than 6 weeks resulted in significant plant death (17 to 42 percent). Photoperiodic manipulation is not necessary.

**Recommendation:** Receive rooted cuttings in November, place in the cooler for 6 weeks at lower than 40°C, then pot up in final container and move to the bench.

**Result:** A marketable plant after eight weeks on the bench for 5-inch containers, 11 weeks for 1-gallon containers.

**2. Sambucus 'Black Lace':** A popular plant in the landscape today. 'Black Lace' provides Elderberry a handsome deep purple filigreed leaf.

**Comments:** Cooling is absolutely necessary for forcing. Cooling could be provided for a minimum of six weeks, but uniformity is poor (16.5 weeks required for 75 percent of the crop to reach marketable stage). Photoperiodic manipulation is not necessary.

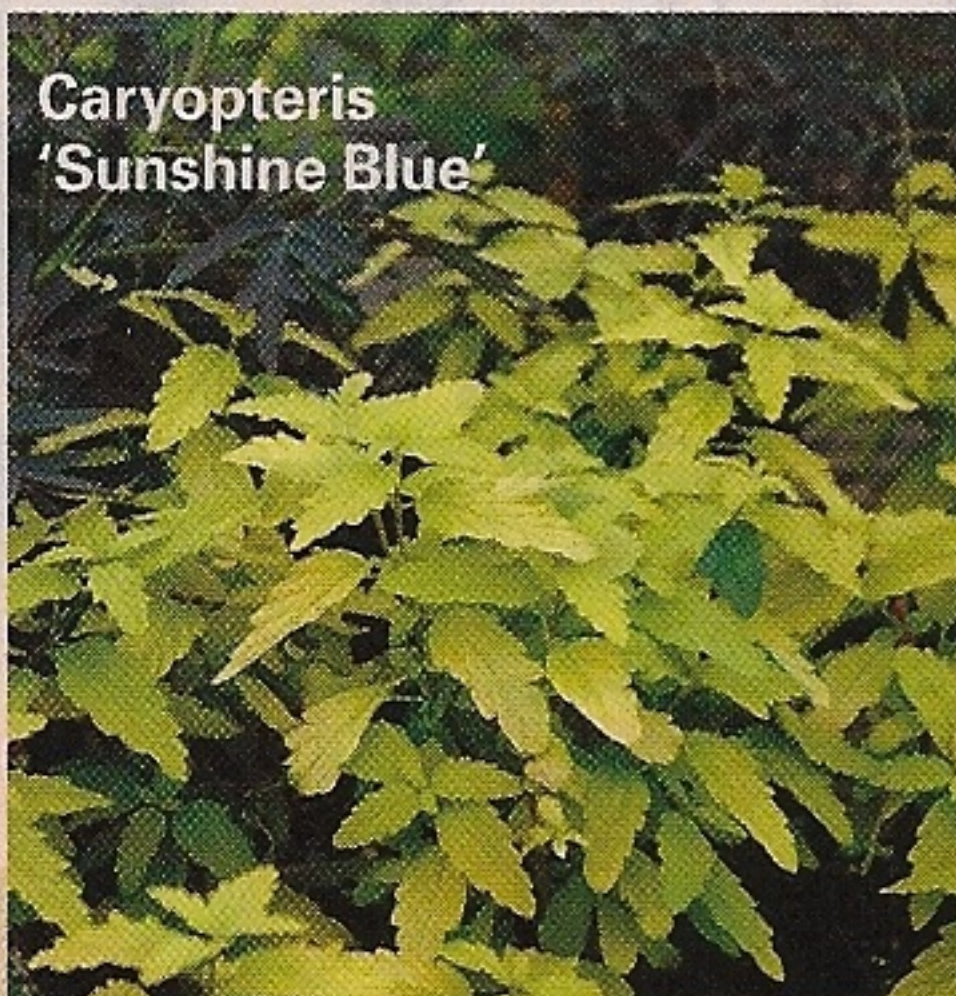
**Recommendation:** Receive rooted cuttings in November, provide eight weeks cooling <40°F, then pot up and move to the bench.

SHRUBS

**Result:** A marketable plant after eight weeks on the bench for 5-inch containers, 10 weeks for 1-gallon containers.

**3. Physocarpus 'Summer Wine':** A wonderfully cold hardy shrub with handsome Ninebark coppery leaves.

**Comments:** Cooling is not ab-



Caryopteris  
'Sunshine Blue'

Weeks in cooler	Weeks to finish	Height above pot (in)
0	20 a	4 a
6	11 b	5.6 b
10	9 c	5.6 b

z 34-37°F

y values followed by the same letter are not significantly different at p=0.05

solutely necessary for forcing, but extremely beneficial to reduce bench time. Cooling should be provided for eight to 10 weeks. Photoperiodic manipulation not necessary.

**Recommendation:** Receive rooted cuttings in November, provide 10 weeks cooling at lower than 40°F, then pot up and move to the bench. Growth regulators would be beneficial on plants cooled for more than 8 weeks.

**Result:** A marketable plant after eight weeks on the bench for 5-inch containers, 11 weeks for 1-gallon containers.

**4. Caryopteris 'Sunshine Blue':** A small shrub with bright chartreuse leaves. This was false spirea done in 5-inch containers only.

**Comments:** Plants do fill out larger containers well, recommend either two per gallon or one per 5-inch pot. Cooling recommended for vigor and to reduce bench time. Photoperiodic manipulation is not necessary.

**Recommendation:** Receive rooted cuttings in November, place in cooler for at least six weeks, pot up in 5-inch containers.

**Result:** A marketable plant after nine weeks on the bench.

Next month, we'll look at a few others that fit in Group 4, but because of funding limitations, we did not look at them as closely as the prior subjects. **GG**

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