



PLANT TRIAL RESULTS

Get to know
SWEETSHRUBS

With excellent foliage and few problems with pests or diseases, these natives deserve more love

'Aphrodite'

BY RICHARD HAWKE

Woody plants take up a lot of space for a lot of years, so here at the Chicago Botanic Garden we must be choosy about which shrubs we try. A sweetshrub trial had been on our short list for a while, so when some beds opened a few years ago, I knew the time had come. Eastern sweetshrub, otherwise known as Carolina allspice (*Calycanthus floridus*), is a bit of a peculiar native, featuring deliciously fragrant maroon flowers in late spring on a suckering, multistemmed shrub. Cultivars have been selected for purple leaves, strong fragrance, and novel flower colors, which so far include creamy white, yellow, and red. Breeders have brought together our natives—eastern sweetshrub and California sweetshrub (*C. occidentalis*)—and an Asian species (*C. chinensis*) to create some hearty cultivars that offer up bigger flowers on larger plants.

A fragrant floral display sets these shrubs apart

When I encountered the curious brownish-red flowers of eastern sweetshrub for the first time, they seemed like something only a fly or beetle would appreciate. Imagine my surprise when the scent was like Juicy Fruit gum and not carrion. Over the years, my evaluators have described the floral scents of sweetshrubs as chocolate-cinnamon-licorice, apple, plum, musk melon, cranberry, burnt sugar, soap, sweet berries, and umami. Fragrance is subjective and personal, and it may register as heavy, subtle, or altogether elusive to different people. However, we agreed that eastern sweetshrub selections generally have a stronger scent than the hybrids, and that warm temperatures can intensify the fragrance.

Sweetshrub flowers could be described as resembling magnolia or lotus flowers in shape, with strappy tepals (petals and sepals that look the same) that unfurl gradually from plump oval buds. The main flower show is on old stems in late spring, with sporadic flowering on new growth occurring in midsummer.

Interesting fruit and foliage extend the seasonal interest

The leathery, veiny fruits that develop after flowering are a curiosity but are not especially ornamental. These pendulous, urn-shaped pods are 2 to 3 inches long and resemble wrinkled figs or funky chrysalises. They ripen to brown over winter and often persist on plants well into summer.

Bruised or crushed leaves release a spicy, fruity scent. Yellow to golden-yellow fall foliage color is common but can vary widely. For example, by Halloween 2022 'Edith Wilder' was uniformly bright golden-yellow (photo top right), while 'Venus' was still mostly green.



At a glance

Calycanthus spp. and cvs.

ZONES

Eastern sweetshrub is winter hardy in Zones 4–9 but may suffer some dieback or injuries in the colder areas. The hybrids are considered less cold tolerant, but all have been hardy in our Zone 5 garden.

CONDITIONS

Full sun to partial shade; adaptable to a wide range of soil types but prefers moist, well-drained soil; tolerant of alkaline pH

NATIVE RANGE

North America, Asia

PESTS AND DISEASES

These shrubs have few pest or disease problems and are even deer resistant. Tar spotting on leaves and flowers can occur but is mostly cosmetic. The yellowish-green to creamy white flowers of 'Athens' and 'Venus' were more prone to tar spotting than those of maroon-flowered cultivars.

Form and vigor set the **TOP PERFORMERS** apart



'Aphrodite' (*C.* 'Aphrodite', Zones 5–9, photo p. 38) is undeniably a bruiser, bigger than other cultivars by almost every measure. Reddish-purple flowers up to 4 inches wide open to reveal creamy yellow markings on the innermost tepals. The flowers are held on longer stalks, so they are less masked by the leaves. 'Aphrodite' resembles 'Hartlage Wine', but it blooms about two weeks later. More-refined noses smelled plum and spice in the light, fruity fragrance, but the scent eluded me completely. The lush green leaves, tinged with bronze early in the season, are among the longest of any sweetshrub's. Fall color comes on late, turning from a mix of bright yellow and green to rich golden-yellow before the leaves drop. At 9 feet tall and 13 feet wide, 'Aphrodite' was a behemoth, even dwarfing 'Hartlage Wine', which is also pretty big. The robust, bushy plants occasionally appeared a little unruly or unbalanced because of long, vigorous stems, which were notable on young plants or late in the season. Cold hardiness has not been an issue here, despite the fact that California sweetshrub is part of its genetic makeup.

'Hartlage Wine' (*C.* × *raulstonii* 'Hartlage Wine', Zones 5–9) is a hybrid that originated at North Carolina State University's JC Raulston Arboretum in 1991. (See the sidebar on p. 43 for more information on hybrids.) Like the other hybrid cultivars, 'Hartlage Wine' has lush foliage, a vigorous and robust habit, and heavy flower production from late spring to midsummer. It's named for my friend Richard Hartlage, who made the original cross when he was a college student. The 3-inch flowers emerge burgundy-red and fade to a soft puce color, with near-white inner tepals and a light, fruity fragrance. The dense, bushy plants benefit from occasional light pruning to keep wayward stems in check. In fall the leaves turn deep yellow but drop quickly, even while the remaining foliage is still green.

Roy's Dark Red™ (*C.* *floridus* 'KLMY', Zones 4–9) has midwestern roots, having been selected in southern Wisconsin by acclaimed nurseryman Roy Klehm. It fell short of top marks in our trial but is deserving of an honorable mention. While more maroon than red, the flowers have a slight silvery sheen and are quite dark compared to other selections. On most days, I found Roy's Dark Red™ to have a heavy, sweet fragrance; warm temperatures enhance the scent, but sometimes there was

| TRIAL PARAMETERS |

Since 2018, the Chicago Botanic Garden has evaluated 13 different sweetshrubs in comparative trials. Cold hardiness, especially pertaining to the hybrid cultivars, was a focus of our trial.

- **HOW LONG:** Minimum of six years
- **ZONE:** 5b
- **CONDITIONS:** Full sun; well-drained, alkaline, clay-loam soil
- **CARE:** We provided minimal care, allowing the plants to thrive

or fail under natural conditions. Besides observing their ornamental traits, we monitored the plants to see how well they grew and adapted to environmental and soil conditions. We also kept a close eye on any disease or pest problems, and assessed winter plant injuries and losses.



barely a hint. The 2-inch flowers are so dark that they can be easily overlooked in the axils of the glossy dark green leaves. Some foliar chlorosis on older foliage detracted from the healthy glow of the lustrous new leaves. The fall color is dirty yellow with a brownish cast, which makes the plants look a little rough overall. At less than 5 feet tall, Roy's Dark Red™ is one of the shortest cultivars, but its compact habit was less obvious by the fifth year, when suckers had filled the space between plants.

A few years ago, I was asked to do a smell check on **'Michael Lindsey'** (*C. floridus* 'Michael Lindsey', Zones 4b–9). I thought at the time that it had the best fruity fragrance of any of the plants in the trial. Its dark maroon flowers are among the smallest—just a tad larger than those of the species—and are freely produced in late spring. The glossy leaves are of a noticeably darker green than those of other cultivars, and in autumn they turn a beautiful bright yellow with amber tones. 'Michael Lindsey' suckers like the species and forms a well-balanced rounded habit, second only to *C. floridus* var. *glaucus* 'Purpureus' in quality. The suckering nature amplifies the plant's girth—it grows more than 8 feet wide and 6 feet tall. 'Michael Lindsey' is an older cultivar, selected and introduced by plantsman Allen Bush.

| HOW-TO |

PRUNING 101

Pruning sweetshrubs is rarely necessary, but when it is needed there are a few points to keep in mind. Sweetshrubs bloom on old wood (the previous year's growth) as well as on new wood, so removing old stems in winter or spring will reduce the early flower show. Pruning—again, only if needed—is generally best done in summer, after flowering. If the plant has gotten too large or is a bit unruly, pruning to reshape and to control size is best done after flowering too.

There are a few exceptions to the summer pruning rule:

1. A LITTLE SHAPING IN SPRING IS FINE.

To even out an imbalanced habit, you may choose to remove a few wayward or overly vigorous branches in spring.

2. IF IT'S DEAD, TIMING ISN'T IMPORTANT.

Winter-injured or dead branches can be removed at any time to improve the appearance of the shrub.

3. REMOVE SUCKERS RIGHT AWAY.

Due to its suckering nature, eastern sweetshrub forms thickets over time. To reduce the shrub's width and keep things tidier, remove suckers as they emerge.



NEW CULTIVARS show plenty of promise



One of the most anticipated plants we added to the trials last summer was **Simply Scentsational**® (*C. floridus* 'SMNCAF', Zones 4–9), a new sweetshrub developed by plant breeder Tim Wood at Spring Meadow Nursery. Because Tim is well known for the superb shrubs he has brought to the gardening world, we'll be keeping a close watch on Simply Scentsational® in the coming years. Our evaluators are looking forward to seeing scores of deep maroon flowers and smelling their delicious fruity notes of strawberry, banana, or melon. At season's end, its bright green leaves turn golden-yellow to deep orange-yellow, festooning a modest-size shrub that will reach about 6 feet tall and 4 to 5 feet wide at maturity. Simply Scentsational® is a very recent addition to our trial. It was not included on the table on p. 43 because most of the information that would be shown has not yet been observed.



'**Burgundy Spice**' (*C. floridus* 'Burgundy Spice', Zones 6–9) is an exciting development for a shrub that's usually all about flowers and fragrance. The lustrous, dark burgundy leaves look gorgeous before fading to bronzy green on old wood in early summer; new growth stays deep burgundy far into autumn. 'Purpureus' was around before 'Burgundy Spice', and although nice, it is a pale imitation. The autumnal show on older leaves is a slow burn of orange-yellow from the center outward, followed by the burgundy color gently fading out of the younger leaves. The chocolate-cinnamon-scented maroon flowers, just shy of 2 inches wide, are borne in the leaf axils along the stems and are nearly the same color as the leaves. After three years, 'Burgundy Spice' still has a youthful form but is beginning to fill in and round out. Although

4 feet tall right now, it is expected to reach 8 feet tall and about as wide over time. 'Burgundy Spice' was introduced in 2017 by Pleasant Run Nursery in New Jersey, and I coveted it for several years while waiting for it to become more widely available. In the end my impatience won out, and I got a friend to contact a friend in New Jersey, who bought plants at the nursery and then shipped them here. I hope it's easier to find 'Burgundy Spice' now than it was for me then, though it was so worth the trouble.



I received a text from a colleague on a beautiful morning last spring urging me to come to the trials to see the first flowers of '**Dark Secret**' (*C. × raulstonii* 'Dark Secret', Zones 5–9). Once there, we joked about who was the bigger nerd, the texter or the responder! The dark burgundy flowers are stunning, with tepals that have pointed tips and unfurl to expose the cream-white-brushed inner tepals. The sweet berry fragrance wafting from the 3-inch blossoms was softly scented on that spring day, but it is more intense on warmer days. A 2018 introduction from Broken Arrow Nursery in Connecticut, 'Dark Secret' shares the same parentage as 'Hartlage Wine', as well as similarly lush foliage, a robust form, and a free-flowering habit. The young plants are a bit gawky but are already over 6 feet tall halfway through the six-year trial, about half as tall as they are estimated to get. The brilliant yellow fall color comes late, building in intensity by Halloween, when it peaks golden-yellow with a caramel overlay.

| SOURCES |

The following mail-order plant sellers offer many of the sweetshrubs featured in this article.

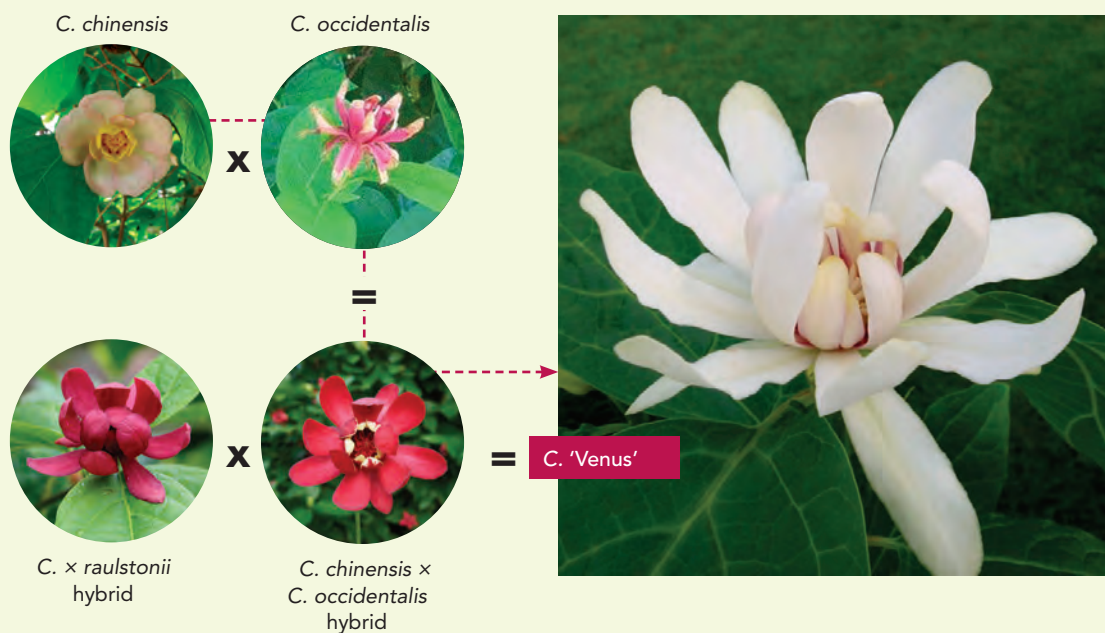
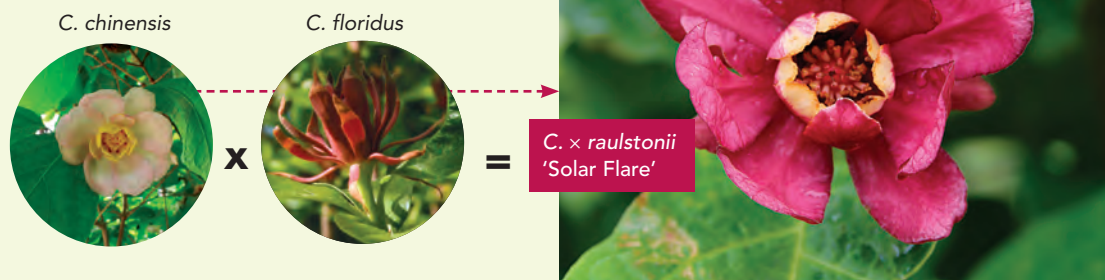
- **Broken Arrow Nursery**, Hamden, CT; 203-288-1026; brokenarrownursery.com
- **Dancing Oaks Nursery and Gardens**, Monmouth, OR; 503-838-6058; dancingoaks.com
- **Sooner Plant Farm**, Park Hill, OK; 918-453-0771; soonerplantfarm.com
- **Wilson Bros Gardens**, McDonough, GA; 770-573-1778; wilsonbrosgardens.com

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A NOTE ON HYBRIDS

Interspecific hybrids have changed the face of sweetshrubs forever. The first sweetshrub hybrid resulted from crosses made in 1991 by Richard Hartlage when he was a student at North Carolina State University (NCSU). One of the original seedlings appeared to be a hybrid between *Sinocalycanthus chinensis* and *Calycanthus floridus* and was given the tongue-twisting botanical name *× Sinocalycanthus raulstonii* to distinguish its intergeneric origin as well as to recognize J. C. Raulston, professor and arboretum director at NCSU at the time.

My memories of the subsequent years were of a lot of discussion and hand-writing to iron out the nomenclature. When that was all done, taxonomists had moved *Sinocalycanthus* into *Calycanthus*, downgrading the cross from intergeneric to interspecific. They settled on *Calycanthus × raulstonii* to describe the *C. floridus × C. chinensis* (née *Sinocalycanthus chinensis*) cross, and honored Richard's original clone as 'Hartlage Wine'. Tom Ranney, an ingenious plant breeder at NCSU, followed up with two more exceptional hybrids in the early 2000s. 'Aphrodite' is a cross between *C. chinensis* and *C. floridus* 'Athens', and white-flowered 'Venus' is a complex hybrid cross of *C. chinensis*, *C. floridus* 'Athens', and *C. occidentalis*. 'Solar Flare' and 'Dark Secret' are more recent hybrid introductions with the same American and Chinese parentage as 'Hartlage Wine'.



• SWEETSHRUB TRIAL RESULTS •

RATING	CALYCANTHUS	HEIGHT	WIDTH	FLOWER COLOR	FLOWER DIAMETER	LEAF SIZE (LENGTH × WIDTH)
★★★★	<i>C. 'Aphrodite'</i>	108 in.	156 in.	reddish purple, creamy yellow	4 in.	7½ × 3½ in.
★★	<i>C. 'Venus'</i>	66 in.	118 in.	creamy white, rosy blush	3 in.	4¾ × 3 in.
★★★	<i>C. floridus</i>	72 in.	103 in.*	maroon	1½ in.	4½ × 2 in.
★★	<i>C. floridus</i> 'Athens'	66 in.	86 in.	light yellowish green	2 in.	4½ × 2 in.
NR	<i>C. floridus</i> 'Burgundy Spice'	48 in.	64 in.	maroon	1¾ in.	6 × 3½ in.
★★	<i>C. floridus</i> 'Edith Wilder'	59 in.	70 in.	maroon	2 in.	4½ × 3 in.
★★★	<i>C. floridus</i> 'KLMY' Roy's Dark Red™	57 in.	82 in.	dark maroon	2 in.	6 × 2¼ in.
★★★★	<i>C. floridus</i> 'Michael Lindsey'	72 in.	100 in.*	dark maroon	1¾ in.	5 × 2½ in.
★★★	<i>C. floridus</i> var. <i>glaucus</i> 'Purpureus'	50 in.	104 in.*	maroon	2 in.	5 × 2½ in.
NR	<i>C. × raulstonii</i> 'Dark Secret'	78 in.	81 in.	dark burgundy, creamy white	3 in.	7 × 4¾ in.
★★★★	<i>C. × raulstonii</i> 'Hartlage Wine'	90 in.	103 in.	burgundy-red, white	3 in.	7 × 4½ in.
★★★	<i>C. × raulstonii</i> 'Solar Flare'	85 in.	89 in.	mauve-puce, yellow	2½ in.	7¾ × 4¾ in.

[KEY]

- ★★★★ Excellent
- ★★★ Good
- ★★ Fair
- ★ Poor
- NR Not rated (new to trial)

*estimated width due to suckering habit