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# ‘UCONNPCSDR’ (Stay Classy®): A Compact Purpleleaf Sandcherry

**Mark H. Brand and Bryan A. Connolly**
*Department of Plant Science and Landscape Architecture, University of Connecticut, 1376 Storrs Road, Storrs, CT 06269-4067, USA*

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The purpleleaf sandcherry, *Prunus* ×*cistena*, was first created by NE Hansen at the South Dakota Agricultural Research Station in 1910 (Jacobson 1992). This shrub was developed by hybridizing *Prunus pumila* var. *besseyi* (syn. *Prunus besseyi*), a resilient shrub of North America that tolerates harsh prairie winters and droughts, and *Prunus cerasifera* var. *atropurpurea*, a purple-leaved variant of the cherry plum, or myrobalan plum, originating in western Asia and the Caucasus (Dirr 2009; Jacobson 1992).

The original *Prunus* ×*cistena* is commonly sold as a 2- to 3-gallon container plant but reaches a mature size (2 to 3 m tall) that is too large for many landscapes where it has been installed. It has an upright growth habit, does not produce basal branches, and plants become open at the base, where the foliage does not cover the lower stems, and the plants develop a “leggy” form. Additionally, without regular pruning to shorten branches, the original *P.* ×*cistena* type usually develops branches that flop over with age.

‘UCONNPC001’ (Darkstar®), our previous purpleleaf sandcherry release, addresses many of the liabilities of the original *P.* ×*cistena* cultivar (Brand and Connolly 2021). ‘UCONNPC001’ was the result of crossing ‘UCONNPP002’ (Jade Parade®) and *Prunus cerasifera* var. *atropurpurea*. ‘UCONNPP002’ itself is the hybrid offspring of two eastern North America forms, the prostrate *Prunus pumila* var. *depressa* that was pollinated by *Prunus pumila* var. *cuneata*. ‘UCONNPC001’ is more compact and does not develop the “legginess” of the older *P.* ×*cistena* type and needs little to no pruning. It was decided that an even smaller and more compact *P.* ×*cistena* form than ‘UCONNPC001’ would be useful for landscape purposes, and this led to the development of ‘UCONNPCSDR’.

UCONNPCSDR is a new cultivar of *P.* ×*cistena* that is superior to the original *P.* ×*cistena* primarily by being much more compact both in height and width. It is similar to ‘UCONNPC001’ but is about one-third to one-half its size at maturity. ‘UCONNPCSDR’ has a mounded form, with a dense habit and many basal branches, resulting in plants that are full at the bottom with foliage down to the ground.

## Origin

The new dwarf purpleleaf sandcherry ‘UCONNPCSDR’ arose from a group of seedlings grown from *Prunus pumila* var. *depressa* × *Prunus cerasifera* var. *atropurpurea* ‘Thundercloud’. The crosses were made in Spring 2013 with seeds collected in late Summer 2013. Seeds were stratified in Winter 2013–14 and then germinated in Spring 2014 at the University of Connecticut Storrs/Mansfield, CT, USA. The low growth habit of the maternal parent *Prunus pumila* var. *depressa*, in comparison with the taller *Prunus pumila* var. *besseyi* used in the original cross, produced progeny with more constrained growth, which was the objective of the hybridization. In addition to dwarf growth form, seedlings were evaluated for full basal branching, spring flowering, red summer foliage, and vigor. Plants were evaluated from 2014 through 2023 and the initial selection of ‘UCONNPCSDR’ was made in late Spring 2018.

## Description

‘UCONNPCSDR’ has a mounded and dense plant form reaching a typical mature height that is around 60 cm and a width of 90 cm (Figs. 1 and 2). Under optimal growing conditions in the landscape, ‘UCONNPCSDR’ could grow to 90 cm tall and 120 cm wide. Branching and foliage occurs all the way to the bottom of ‘UCONNPCSDR’ plants, so the canopy is full, and plants do not become leggy at the base (Figs. 1 and 2). The lateral branches of this cultivar are around 10 cm long, 6 mm in diameter, with 1 cm internodes. Branches are held at a 45° to 60° angle from the stem and are strong. The new stem color is purple N77A, and older stems are brown 200B. All colors in the description were designated using the Royal Horticultural Society Color Charts (Royal Horticultural Society 2015).

Leaves of ‘UCONNPCSDR’ are alternate, elliptical, and ∼5.5 cm long by 2.3 cm wide with acute apices and cuneate bases. The leaf margins are lightly serrated. Upper and lower blade surfaces are glabrous, with a pronounced midrib on the lower surface. Petioles are ∼9 mm long with a color of 187A dark red above and 183C moderate red below. Leaf color is dependent on light levels, with greater light producing deeper and brighter purple/red hues. The following leaf colors are all for plants growing under high light conditions. The upper surfaces of young developing leaves are N186C, dark grayish red, with lower surfaces 187B, dark red (Fig. 1). Midseason leaves (early July) upper surfaces are 200A dark grayish reddish brown, with lower surfaces 187A dark red. Fully expanded old leaves (early September) upper surfaces that are NN137A grayish olive green and tints of 186C dark grayish red, and lower surfaces that are NN137C grayish olive green and tints of 186C dark grayish red (Fig. 2).

‘UCONNPCSDR’ produces small flowers along the length of the previous season’s annual growth (Fig. 3). There are typically 10 flowers per lateral branch. Flowers have six to seven petals, are ∼15 mm in diameter, last ∼7 d, and are lightly fragrant. The petal color when open is 69C red-purple above and below. Blooming occurs in May. *Prunus* ×*cistena* are typically mostly sterile due to their

Fig. 1. Dwarf habit, dense branching and brightly colored purple-red spring leaves of ‘UCONNPCSDR’ sandcherry.

Fig. 2. Five-year-old plant of *Prunus* ×*cistena* ‘UCONNPCSDR’ exhibiting late summer foliage color.

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M.H.B is a Professor.
Current address for B.A.C.: Associate Professor, Department of Biology, Eastern Connecticut State University, 83 Windham Street, Willimantic, CT 06226, USA.
M.H.B. is the corresponding author. E-mail: mark.brand@uconn.edu.

Fig. 3. Flowers of 'UCONNPCSDR' sandcherry are light pink to white and produced in late April to early May in Connecticut.

interspecific origin and fruits have yet to be observed on 'UCONNPCSDR'.

## Culture and Landscape Use

Plants of 'UCONNPCSDR' have the capacity to grow well in a range of conditions but perform best in well-drained soils and with full sun exposure or light shade. 'UCONNPCSDR' tolerates a wide range of temperatures and can be cultivated in USDA Hardiness Zones 2 to 8 (USDA Plant Hardiness Zone Map 2023). It is expected that 'UCONNPCSDR' will do best in regions receiving fewer than 50 summer days with temperatures exceeding 30 °C. 'UCONNPCSDR' is derived from *P. pumila* types from eastern North America and therefore should have inherited good resistance to leaf spot diseases that are problematic on other *P.* ×*cistena* genotypes. Like most *P.* ×*cistena*, 'UCONNPCSDR' responds well to pruning, if necessary, but with its compact stature, this cultivar will rarely require pruning.

UCONNPCSDR is the smallest cultivar of *P.* ×*cistena* known with a mature expected height and width of 60 cm by 90 cm, making it significantly more compact than its predecessor 'UCONNPC001', which can grow to at least 140 cm tall and 180 cm wide. 'UCONNPCSDR' has a mounded form, with a dense habit and many basal branches and requires minimal maintenance in the landscape. Flowers produced in May provide an additional ornamental display that also makes the plant useful for supporting pollinators. Like *P.* ×*cistena* in general, 'UCONNPCSDR' also has vibrant red summer foliage that provides visual interest throughout the growing season. 'UCONNPCSDR' is adaptable to many landscape conditions and is easy to cultivate. We believe these traits make 'UCONNPCSDR' an excellent addition to the *P.* ×*cistena* genotypes already available for landscaping.

## Clonal Propagation

'UCONNPCSDR', like 'UCONNPC001' and 'UCONNPC002' (Brand and Connolly 2021; Connolly and Brand 2021) can be easily propagated by softwood cuttings collected from mid-June to mid-July, but cuttings should be firm at the base when cut. Foliated shoots can be rooted outside of the prime softwood cutting time frame but rooting and liner grow-out may suboptimal. Peatmoss:perlite (1:1, v:v) or similar rooting media work well. Cuttings can be double wounded and dipped in 3000 ppm indole-3-butyric acid (IBA) in talc to obtain rooting percentages of greater than 90% and robust root systems in 6 weeks. The cuttings can be potted and fertilized to produce new growth, after rooting. Rooted cuttings survive the first overwinter period without mortality. Plants are easily grown in containers using standard container nursery production practices and market-ready shrubs can be produced in 2 to 3 years.

Micropropagation is also an effective way to clone 'UCONNPCSDR'. Shoot propagation in vitro can be achieved using Murashige and Skoog medium and vitamins (Murashige and Skoog 1962), 0.2 mg/L benzyladenine, 3% sucrose, and 0.8% agar, with a pH of 5.7. Cultures should be kept at ~25 °C with a 16-h photoperiod of 40 µmol/m$^2$/s produced by cool white fluorescent or LED lights with a subculture cycle of between 28 and 35 d. An 8× shoot multiplication rate can be expected. Microshoots are easily rooted (100% rooting) under nonsterile conditions in clear plastic containers with lids filled with a 1:1 (v:v) peatmoss to vermiculite mix under artificial lighting. Microcuttings with 1000 ppm IBA in talc applied will root in 3 weeks and can then be acclimated to drier air over a period of 10 to 14 d before being moved to a greenhouse. Greenhouse acclimation should employ clear plastic humidity dome covers and 50% shadecloth for a period of 10 to 14 d.

## Availability

'UCONNPCSDR' has been patented (US PP36,173) by the University of Connecticut (Brand and Connolly 2024) and Canada Plant Breeder Rights have been applied for. This cultivar has been licensed exclusively to Spring Meadow Nursery, Grand Haven, MI, USA, and is part of the Proven Winners® product line of flowering shrubs. 'UCONNPCSDR' has been assigned the trade name Stay Classy®.

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