

# ‘Firefly’ *Clethra*

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*Clethra alnifolia* L. (family Clethraceae Klotzsch.) is an ornamental shrub that is native to the eastern United States (Wilbur and Hespeneide, 1967). While sometimes called summersweet or sweet pepperbush, it is more commonly known as clethra. Approximately 25 cultivars have been described, most of which grow 6 to 8 feet in height with an equal to wider spread, but a few compact selections are also available (Dirr, 2009). Flowering occurs in midsummer. Extremely fragrant flowers are borne on upright racemes or panicles up to 15 cm in length. Flowers may be pink or white; however, no pink-flowered plants with compact growth habit have been found. Foliage generally is dark green. One variegated cultivar (‘Creels Calico’) has been described but is not widely grown. A yellow-leafed form has been named (‘Creels Canary’), but no description has been found nor does this cultivar appear to be commercially available (Dirr, 2009).

A U.S. National Arboretum breeding program was started in 1997 at the Tennessee State University Nursery Research Center (TSU-NRC) in McMinnville, TN, with the purpose of developing a compact, pink-flowered *C. alnifolia*. Although this goal has not yet been achieved, a plant with yellow foliage was found in one of the populations. This article serves to describe this seedling, which was released under the name ‘Firefly’.

## Origin

Controlled hybridizations were made in 1998 at the TSU-NRC between *C. alnifolia* ‘Tom’s Compact’ and ‘Ruby Spice’. None of the F<sub>1</sub> progeny had the compact growth habit of ‘Tom’s Compact’ or the deep pink-colored

flowers of ‘Ruby Spice’. In 2000, pollen was collected from a randomly selected group of F<sub>1</sub> plants, bulked, and used to pollinate these same plants. Although a few F<sub>2</sub> plants with light pink-colored flowers were found, no compact or deep pink-flowered plants were observed. One seedling with yellow foliage was among the F<sub>2</sub> progeny and was selected for further testing. In 2005, plants of this selection were sent for evaluation to nursery and university cooperators in Alabama, Florida, Georgia, Indiana, Illinois, Maryland, Mississippi, Missouri, New Jersey, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, Tennessee, and Virginia. After evaluation in these locations, this selection was released in 2011 under the name ‘Firefly’.

The cultivar name Firefly was registered with the International Cultivar Registration Authority for unassigned woody ornamental genera in accordance with the International Code of Nomenclature for Cultivated Plants (Brickell et al., 2004). Herbarium specimens of ‘Firefly’ have been deposited at the U.S. National Arboretum Herbarium as a horticultural standard.

## Description

*Clethra alnifolia* ‘Firefly’ (NA 73935; PI 663907) is a deciduous, rounded shrub that reached 1 m high and 1 m wide in 5 years of field evaluation in McMinnville, TN (USDA

hardiness zone 6b; U.S. Department of Agriculture, 1990; Waynesboro silt loam) under full sun conditions (Fig. 1). Mature leaves are obviate-oblong, up to 10 cm long and 4 cm wide, acute to short acuminate, cuneate, and sharply serrate. Foliage is yellow [Royal Horticulture Society (RHS) 153B; Royal Horticulture Society, 2007] on the adaxial leaf surface when grown in full sun but lime green (RHS 144A) when grown in full shade. In contrast, leaves of other (‘Tom’s Compact’ × ‘Ruby Spice’) F<sub>2</sub> plants are dark green (RHS 147A). ‘Firefly’ produces panicles up to 8 cm in length in midsummer. Flowers are 1 cm in diameter, very pale pink (RHS 51D) in bud, and white (RHS 155B) when fully open. ‘Firefly’ does not flower as profusely as green-foliaged cultivars. Flowers are followed by large numbers of dark brown seed capsules that persist throughout the winter but are not ornamental.

## Culture and Uses

Statements and recommendations on plant performance and culture are based on information provided by nursery and university cooperators in multiple locations looking at three plants per site as well as plant performance in replicated trials at the Nursery Research Center in McMinnville, TN. Data from cooperators were generally descriptive rather than quantitative and reflected diverse growing and cultural conditions. These data indicated that like other clethra, ‘Firefly’ grows well in moist, acidic soil. It is hardy from USDA cold hardiness zones 4 to 8 and performs best when grown in partial shade. In full sun, foliage often burns under hot weather conditions, especially when ‘Firefly’ is grown in the warmer limits of its hardiness range (personal observation; Dirr, 2009). Several cooperators in the hottest parts of our evaluation area reported that one or more of their plants died. Foliage color is not as striking when plants are grown in full shade. It is expected that ‘Firefly’ will be a specialty plant grown primarily for its foliage and in the cooler areas of *C. alnifolia* adaptation.

‘Firefly’ is readily propagated from softwood cuttings using 1000 ppm indole butyric acid with rooting occurring within 4 weeks. It has not shown unusual features that would indicate potential invasiveness.



Fig. 1. Two-field-grown plants of *Clethra alnifolia* ‘Firefly’.

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'Firefly' is well suited for use as a specimen plant, as a hedge, or in a mixed border. Because of its yellow to lime green foliage, 'Firefly' adds interest to shaded areas of the garden. Although flowers are fragrant, panicles are short and not numerous; therefore, unlike other *C. alnifolia* selections, 'Firefly' is valued more for foliage than floral characteristics.

#### Availability

Like other woody ornamental plants released from the National Arboretum, 'Firefly'

is not patented so may be propagated and sold freely. Plants are available from wholesale, mail order, and a limited number of retail nurseries (source list available on request). The National Arboretum does not have plants of these cultivars available for general distribution but can supply cuttings to nurseries wanting to propagate these plants.

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