‘Blue Chip’ and ‘Miss Ruby’ Buddleja

Dennis J. Werner1,3 and Layne K. Snelling2

Department of Horticultural Science, Box 7609, North Carolina State University, Raleigh, NC 27695-7609

Additional index words. Buddlejaceae, Scrophulariaceae, Loganiaceae, interspecific hybridization, plant architecture, invasiveness

Buddleja (Scrophulariaceae Juss., formally Buddlejaceae K. Wilhelm and Loganiaceae R. Brown), commonly called butterfly bush, is a popular landscape shrub worldwide valued for its summer flowering, fragrance, and attractiveness to butterflies. Numerous cultivars in a range of flower colors are available. Most cultivars are vigorous, often attaining a height of over 2 m in one growing season, too large for many residential landscapes. To address the issue of excessive vigor, a compact cultivar of Buddleja named ‘Blue Chip’ was released.

Pink is a popular color in Buddleja, but few pink-flowered cultivars are available. ‘Pink Delight’, the most common cultivar, is very vigorous, limiting its landscape uses. ‘Miss Ruby’ has been released to provide a cultivar demonstrating improved pink color and compact growth habit as compared with ‘Pink Delight’.

Origin

‘Blue Chip’. ‘Blue Chip’ resulted from open pollination of NC2003-7 (Fig. 1). NC2003-7 was derived from open pollination of a family obtained from the controlled hybridization of ‘Honeycomb’ × NC2000-1. ‘Honeycomb’ is a yellow-flowered cultivar of Buddleja ×weyeriana Weyer (Dirr, 1998). NC2000-1 is an interspecific hybrid derived from a controlled cross of B. davidii var. nanhoensis (Chitt.) Rehd. ‘Nanho Purple’ and B. lindleyana Fort. ex Lindl. (Elliott et al., 2004). ‘Blue Chip’ was selected in 2004 in field trials at the Sandhills Research Station, Jackson Springs, NC. It was subsequently tested in replicated field trials and grower locations under the test number NC2003-22. ‘Miss Ruby’ was released by NCSU in 2007.

‘Miss Ruby’. ‘Miss Ruby’ resulted from controlled hybridization of ‘White Ball’ × ‘Attraction’ made in 2002. ‘White Ball’, released by the Boskoop Agricultural Research Station, Boskoop, The Netherlands, is a compact white-flowered cultivar of unknown parentage (Gert Fortgens, personal communication). ‘Attraction’, showing deep-purple flower color, was derived from open pollination of ‘Honeycomb’ (Dirr, personal communication). ‘Miss Ruby’ was selected in field trials in 2003 at the Sandhills Research Station, Jackson Springs, NC. It was subsequently tested in replicated field trials and grower locations under the test number NC2003-22. ‘Miss Ruby’ was released by NCSU in 2007.

Description

‘Blue Chip’. ‘Blue Chip’ has a symmetric, compact, spreading habit (Fig. 2). In replicated trials of 10 plants, unpruned ‘Blue Chip’ averaged 79.8 cm height and 123.6 cm width (height/width ratio = 0.65) after two growing seasons (Table 1). Mature leaves are elliptic, up to 9.5 cm long and 3.6 cm wide. Foliage is green [Royal Horticultural Society (RHS) 137A] on the abaxial side, and grayed–green (RHS 137A) on the adaxial side (Royal Horticultural Society, and Flower Council of Holland, 1986). Plants are very dense, a consequence of abundant lateral branching (Fig. 3). Leaves are tardily deciduous, often retained until mid-December in U.S. Department of Agriculture (USDA) hardiness zone 7b. Flowering begins in mid-May in Raleigh, NC, and continues throughout the growing season until interrupted by the first fall freeze event. Inflorescences average 8 cm in length and produce up to 200 flowers. Color of open flower petals is violet–blue (RHS 90C). Color of the corolla tube inside surface is orange (RHS 25A). Flowers are fragrant. Anthers are malformed or lacking and produce little to no viable pollen. In a field setting surrounded by fertile cultivars, ‘Blue Chip’ produced few fruit, and seed set was extremely low, although minimal numbers of seedlings were produced.

‘Miss Ruby’. ‘Miss Ruby’ has an upright, globose habit (Fig. 4). In replicated trials of 10 plants, unpruned ‘Miss Ruby’ averaged 106.3 cm height and 117.4 cm width (height/width ratio = 0.91) after two growing seasons (Table 1). Mature leaves are elliptic, averaging 6.7 cm long and 1.8 cm wide. Foliage is green (RHS 137A) on the adaxial side and grayed–green (RHS 194B) on the abaxial side. Plants are very dense with abundant lateral branching. Leaves are deciduous.

Flowering begins in mid-May in Raleigh, NC, and continues throughout the growing season. Inflorescences average 10.6 cm in length and produce up to 160 flowers per inflorescence. Unopened flower buds are red–purple (RHS 71A) and open to red– purple (RHS 71B to 71C; Fig. 5). Color of the corolla tube inside surface is orange (RHS 25A). In comparison, unopened flower buds and open flowers of ‘Pink Delight’, the existing standard pink cultivar in the trade, are purple (RHS 75A) and purple (RHS 75B), respectively. Flowers are fragrant. In a field setting surrounded by fertile cultivars, ‘Miss Ruby’ produced moderate amounts of seed, but less than most commercial cultivars of Buddleja.

Adaptability

Propagules of ‘Blue Chip’ and ‘Miss Ruby’ have been grown in North Carolina (Raleigh and Jackson Springs, USDA hardiness zone 7b), Michigan (Grand Haven, USDA hardiness zone 5), and the RHS Garden Wisley, U.K. Both cultivars have demonstrated reliable cold hardiness for two winters in the Michigan and U.K. trials and five winters in both North Carolina test sites. In the Michigan trial, plants of both cultivars died back to the ground and resumed growth from the crown the next spring. In North Carolina, aboveground shoots survived over winter; hence, plants may require occasional moderate pruning to maintain the desired compact growth. ‘Miss Ruby’ and ‘Blue Chip’ were entries in the 2008 Royal Horticultural Society Buddleja Euro-trial at RHS Garden Wisely, U.K. Of 97 cultivars included in the trial, ‘Miss Ruby’ and ‘Blue Chip’ ranked first and second, respectively, in the public popularity poll. Cultural requirements of ‘Blue Chip’ and ‘Miss Ruby’ are similar to other cultivars of Buddleja.

Received for publication 2 Mar. 2009. Accepted for publication 30 Mar. 2009.

1Raulston Distinguished Professor.

2Research Technician.

We gratefully acknowledge the technical assistance of the staff of the Sandhills Research Station, Jackson Springs, NC.

3To whom reprint requests should be addressed; e-mail dennis_werner@ncsu.edu.

Fig. 1. Pedigree of ‘Blue Chip’.
Buddleja, most critically full sun exposure and well-drained soil.

**Performance**

‘Blue Chip’. ‘Blue Chip’ has shown outstanding flowering performance in all trials. Unlike many cultivars of Buddleja that show reduced flower production in late summer and fall, ‘Blue Chip’ continues to flower prolifically throughout the entire growing season. Because few viable fruit are produced, panicles senesce quickly after flowering and detract little from the appearance of the plant. Because of its compact, spreading growth habit, ‘Blue Chip’ is appropriate for use in the front of mixed plantings or for mass plantings. Similar to most Buddleja, it attracts butterflies in abundance.

‘Miss Ruby’. ‘Miss Ruby’ has shown outstanding flowering performance in all trials. The dense growth and compact habit of ‘Miss Ruby’ make it appropriate as both a specimen plant and for use in mixed plantings. Its bright pink flower color is unique among existing cultivars of Buddleja. It attracts butterflies in abundance.

**Propagation**

Propagation of ‘Blue Chip’ and ‘Miss Ruby’ can be achieved successfully by using softwood cuttings taken any time in the growing season, treating with low to moderate rates of indole-3-butyric acid, and placing under intermittent mist. Rooting usually occurs within 2 weeks.

**Availability**

U.S. plant patent applications have been submitted and approved for both ‘Blue Chip’ and ‘Miss Ruby’ (numbers currently not assigned) and plant patent rights assigned to NCSU. Plants and propagation rights can be obtained from Spring Meadow Nursery, Grand Haven, MI. Vouchers of both cultivars will be deposited in the NCSU Herbarium.

**Literature Cited**

Dirr, M.A. 1998. Manual of woody landscape plants: Their identification, ornamental characteristics, culture, propagation, and uses. Stipes Publishing, Champaign, IL.

Elliott, W., D.J. Werner, and P.R. Fantz. A hybrid of Buddleja davidii var. nanhoensis ‘Nanho Purple’ and B. lindleyana. HortScience 39: 1581–1583.

Royal Horticultural Society and Flower Council of Holland. 1986. RHS colour chart. RHS, London, U.K.