‘Florida Blizzard’—A White Fancy-leaved Caladium for Large Pots or Shady Landscapes

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Caladiums [Caladium bicolor (Ait.) Vent., syn. Caladium ×hortulanum Birdsey, Araceae Juss.] are tropical foliage plants possessing a diversity of leaf colors and shapes found in few cultivated plants. Their popularity is increasing because of their ability to tolerate summer heat and to grow in shaded locations (Harbaugh and Tjia, 1985). The general color groupings in caladium are white, red, and pink, with accents such as spots and blotches possible within each group. Leaf shapes are grouped as strap, lance, and fancy (heart-shaped). A recent survey (Bell and Wilfret, 1998) revealed that white-fancy-leaved cultivars are the most commonly grown group, accounting for 28% of the commercial tuber production acreage.

‘Candidum’ and ‘White Christmas’ are the most important caladium cultivars, based on acreage. Although these cultivars have been reliable producers for many years and perform well as landscape plants, especially in partial sun or shaded conditions, their performance in containers could be improved. ‘Florida Blizzard’ (Fig. 1), when compared with major white-fancy cultivars, has demonstrated the potential to produce a superior number of leaves and to produce an attractive 10-cm container plant when buds are excised (Evans et al., 1992). The unique leaf color of ‘Florida Blizzard’ is complementary to ‘Candidum’ and ‘White Christmas’, offering an attractive addition to the white-fancy segment of caladiums.

Description

Descriptions of color (e.g., RHS 147A) for plant parts are based on comparison with the Royal Horticultural Society’s color chart (Royal Horticultural Society, 1986).

‘Florida Blizzard’ plants grown for 7 months were 81–97 cm tall. Jumbo tubers are multi-segmented, 6.4–8.9 cm in diameter, bearing 7–9 dominant buds. Tuber surfaces are brown (RHS 200C) with the cortical area yellow (RHS 8B). Leaves are peltate, sagittate-cordate, 26–30 cm long and 18–20 cm wide, with white (RHS 155C) veins and interveinal blotches. A thin greyed-purple line along margins of variable width. Intervenial areas are green (RHS 137A) with large white (RHS 155C) blotches. A thin greyed-purple line (RHS 185A), 1 mm wide, occurs along the basal leaf valley and at the petiole apex. The undersurface is greyed-green (RHS 155C) veins and interveinal blotches. Petioles are 3–6 mm in diameter and yellow-green (RHS 147A).

Plants used for describing color were grown in 15-cm containers in a 40% shaded greenhouse from 2.54-cm-diameter tubers. The foliar color pattern of ‘Florida Blizzard’ represents a unique design in caladium fancy-leaf selections. ‘White Christmas’ is a popular white-fancy-leaf cultivar closest in appearance, but differs sharply in having prominent dark-green veins compared with the white veins of ‘Florida Blizzard’.

Performance

‘Florida Blizzard’ was evaluated for tuber production at the Gulf Coast REC–Bradenton, Fla., during 1998, 1999, and 2000. The soil was an Eaugallie fine sandy soils at the Gulf Coast REC–Bradenton and were hot-water treated for nematode control (Rhodes, 1964).

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Fig. 1. Caladium ‘Florida Blizzard’ forced in a 15-cm container using three No.1 (23.8–6.4 cm) tubers. Dominant buds were not excised from tubers before planting.
Scotts Co., Marysville, Ohio) was applied to the bed surface at the time of fumigation with N at 336 kg ha−1.

Plots were organized in a randomized complete-block design consisting of three replications. An analysis of variance combined over years was conducted in order to compare the performance of ‘Florida Blizzard’ to commercially important white-fancy-leaf cultivars (Tables 1 and 2).

Table 1. Tuber weights and the production index for caladium cultivars harvested in 1998, 1999, and 2000. Values presented are means of three replications with 30 propagules per 1.2-m² plot per year, averaged over 3 years.

| Cultivar       | Marketable wt (g) | Production index |
|----------------|-------------------|------------------|
| Candidum       | 4728              | 119              |
| Candidum Jr.   | 3427              | 90               |
| Florida Blizzard | 4571            | 114              |
| White Christmas | 4500             | 107              |
| **LSD (α = 0.05)** | 606             | 15               |

Table 2. Tuber grade distribution of caladium cultivars harvested in 1998, 1999, and 2000. Values presented are means of three replications of 30 propagules per 1.2-m² plot per year, averaged over 3 years.

| Cultivar       | Marketable tubers by grade (%) |
|----------------|-------------------------------|
| Candidum       |                               |
| Candidum Jr.   |                               |
| Florida Blizzard |                             |
| White Christmas |                               |
| **LSD (α = 0.05)** |                             |

Table 3. Plant performance after 7 months for caladium cultivars grown in full sun from 2.5-cm tubers in 1998 and 1999. Values presented are means of three replications with three plants measured per plot per year, averaged over 2 years.

| Cultivar       | Plant ht (cm) | Leaves (no.) | Leaf length (cm) | Leaf width (cm) |
|----------------|---------------|--------------|------------------|-----------------|
| Candidum       | 85            | 15           | 31               | 21              |
| Candidum Jr.   | 67            | 12           | 27               | 19              |
| Florida Blizzard | 89           | 17           | 28               | 19              |
| White Christmas | 85            | 12           | 32               | 20              |
| **LSD (α = 0.05)** | 7             | 4            | 2                | 2               |

Table 4. Plant performance after 7 weeks for caladium cultivars grown from No. 1 tubers in 10-cm containers in a 40% shaded greenhouse, 1998. Values presented are means of six plants with one No. 1 (≥3.8<6.4 cm diameter) intact tuber planted per container.

| Cultivar       | Plant ht (cm) | Leaves (no.) | Leaf length (cm) | Leaf width (cm) |
|----------------|---------------|--------------|------------------|-----------------|
| Candidum       | 43            | 26           | 16               | 16              |
| Candidum Jr.   | 46            | 24           | 20               | 15              |
| Florida Blizzard | 44           | 34           | 21               | 15              |
| White Christmas | 40            | 26           | 21               | 16              |
| **LSD (α = 0.05)** | 7             | 7            | 5                | 3               |

Table 5. Plant performance after 7 weeks for caladium cultivars grown from intact or de-eyed No. 1 tubers in 10-cm containers in a 40% shaded greenhouse, 1999. Values presented are means of six plants produced from intact or de-eyed No. 1 (≥3.8<6.4 cm diameter) tubers planted individually per container.

| Cultivar       | Plant ht (cm)  | Leaves (no.)  | Leaf length (cm) | Leaf width (cm)  |
|----------------|---------------|---------------|------------------|------------------|
| Candidum       | 56            | 36            | 35               | 24               |
| Florida Blizzard | 62            | 48            | 34               | 20               |
| June Bride     | 32            | 34            | 6                | 13               |
| White Christmas | 53            | 42            | 16               | 22               |
| **LSD (α = 0.05)** | 8             | 6             | 6                | 4                |
Blizzard’ make it an attractive addition to the white-fancy segment of caladium cultivars. Plants grown in 10-cm pots from tubers with excised buds produce compact plants with more leaves than ‘Candidum’ and ‘White Christmas’, and tuber production compares favorably with those important cultivars.

‘Florida Blizzard’ is intended for forcing in containers of 10- to 20-cm diameter and is best grown in partial-sun to shady locations in the landscape. Foliage color is enhanced when plants are grown with 40% to 50% light exclusion. Although extensive research and evaluations have been performed on small acreages of this cultivar, tuber producers are encouraged to plant only limited quantities of ‘Florida Blizzard’ until they have gained experience in production of this cultivar. Standard post-harvest treatment of tubers is recommended (Harbaugh and Tjia, 1985) and preplant hot-water treatment of tubers is encouraged to prolong their life.

Availability

A patent has been applied for ‘Florida Blizzard’ by the Florida Agricultural Experiment Station and production of this cultivar is to be with a licensing agreement with the Florida Foundation Seed Producers, Inc., P.O. Box 309, Greenwood, FL 32443. Information on tuber availability and propagation agreements can be obtained from the Florida Foundation.

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