# CULTIVAR & GERMPLASM RELEASE

HortScience 27(1):82–83. 1992.

# 'Star White' *Dieffenbachia*

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*Additional index words.* foliage plant, breeding

The *Dieffenbachia* breeding program at the Central Florida Research and Education Center, Apopka, has released four new hybrids since its inception in 1976 (Henny et al., 1987a, 1987b, 1988, 1989). 'Star White', described here, is the fifth *Dieffenbachia* hybrid to be released to Florida foliage growers from that program.

### Origin and description

*Dieffenbachia* 'Star White' resulted from five crosses involving nine different parents (Fig. 1). 'Star White' is a medium-sized plant that is suitable for production in 150-, 200-, or 250-mm pots (1.6, 3.8, and 8.8 liters, respectively). 'Star White' has silvery-gray leaves that are highlighted by a distinct white midrib and many small irregular-shaped white islands scattered throughout the leaf blade. A narrow dark-green edge accents the rest of the leaf colorations (Fig. 2). 'Star White' leaves may reach 380 mm in length and 180 mm in width,

### Performance trials

Growth characteristics of 'Star White' were determined from 1986 to 1988 in replicated greenhouse trials. Tissue culture liners rooted in 25-mm cell trays (0.048-liter) were potted into 150-mm (1.59-liter) pots containing Vergro container mix (Verlite Co., Tampa, Fla.). Dates of these trials were 24 Sept. 1986 to 18 Mar. 1987 (Trial I), 29 May 1987 to 30 Nov. 1988 (Trial II), and 27 July 1987 to 24 Feb. 1988 (Trial III).

Plants were grown under two shade levels (125 and 250 $\mu mol \cdot m^{-2} \cdot s^{-1}$ maximum irradiance) and at three fertilizer levels (2.2, 4.4, or 6.6 g 19N-3P-10K Osmocote/150-mm pot every 3 months). In these trials, 'Star White' reached marketable size in 6 to 7 months, at which time individual trials were terminated. Increasing light intensity from 125 to 250 $\mu mol \cdot m^{-2} \cdot s^{-1}$ slightly increased height, leaf length and width, and plant grade in Trial I, but few differences due to light occurred in Trials II and III. This was likely due to a low level of ambient light during Trial I compared to other trials (Table 1). High light intensity resulted in more basal shoots, regardless of trial date. All plants had excellent color, but plants grown under high light were graded higher than the others. Higher fertilizer rates resulted in taller plants with longer and wider leaves, more basal shoots, and higher plant grades, regardless of trial date (Table 1).

*Dieffenbachia* 'Star White' is intended for commercial foliage producers growing finished plants in 150-, 200-, or 250-mm containers. Best quality plants can be expected when plants are produced within minimum irradiance of 200 to 250 $\mu mol \cdot m^{-2} \cdot s^{-1}$. Our general observations suggest that these plants should not be stressed with excess fertilizer or irradiance, or allowed to dry during production.

### Availability

*Dieffenbachia* 'Star White' is being issued by the Florida Foundation Seed Producers, Inc., to Florida tissue culture laboratories for propagation and distribution. Inquiries regarding participating laboratories may be obtained by writing the Florida Foundation Seed Producers, Inc., P.O. Box 309, Greenwood, FL 32443.

### Literature Cited

Henny, R.J., C.A. Conover, and R.T. Poole. 1987a. 'Triumph' *Dieffenbachia.* HortScience 22:96.5-966.

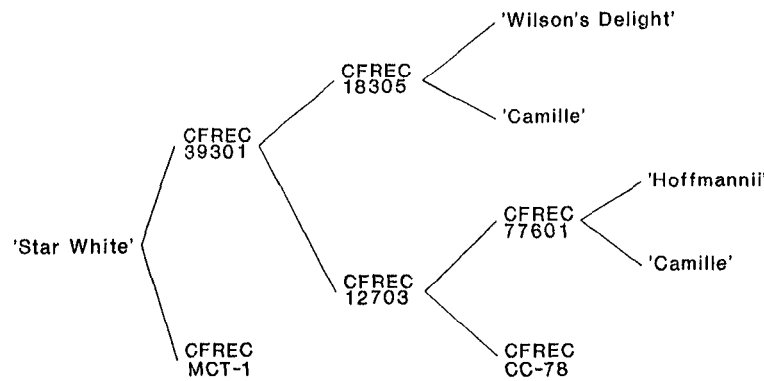


Fig. 1. Pedigree of *Dieffenbachia* 'Star White'.

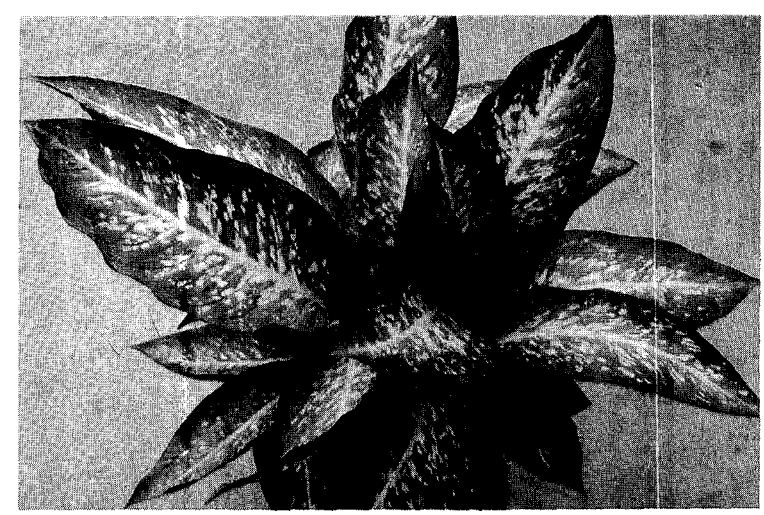

Fig. 2. A mature plant of *Dieffenbachia* 'Star White'.

Received for publication 29 Oct. 1990. Accepted for publication 15 Aug. 1991. Florida Agricultural Experiment Stations Journal Series no. R-00358. Special appreciation is expressed to Laurel Dyals and Chris Fooshee for their technical assistance in development of this cultivar. The cost of publishing this paper was defrayed in part by the payment of page charges. Under postal regulations, this paper therefore must be hereby marked *advertisement* solely to indicate this fact.

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Table 1. Evaluation of light intensity and fertilizer rate on growth of *Dieffenbachia* 'Star White' during three performance trials. Trials I and II were for 6 months and Trial III was for 7 months.

| | Ht (cm) | | | Leaf length (cm) | | | Leaf width (cm) | | | Plant grade[z] | | | Basal shoots | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Trial | | | Trial | | | Trial | | | Trial | | | Trial | | |
| Treatment | I | II | III | I | II | III | I | II | III | I | II | III | I | II | III |
| Light intensity ($\mu mol \cdot m^{-2} \cdot s^{-1}$) | | | | | | | | | | | | | | | |
| 125 | 62.6 | 62.4 | 66.5 | 35.5 | 34.1 | 34.5 | 15.4 | 15.6 | 15.8 | 2.6 | 4.3 | 3.9 | 1.9 | 2.7 | 2.7 |
| 250 | 66.6 | 64.1 | 67.7 | 37.3 | 33.0 | 35.3 | 16.4 | 14.9 | 16.3 | 4.0 | 4.6 | 4.5 | 3.7 | 3.8 | 3.6 |
| Significance | * | NS | NS | * | NS | NS | * | NS | NS | * | NS | * | * | * | * |
| Fertilizer rate (g/150-mm pot per 3 months) | | | | | | | | | | | | | | | |
| 2.2 | 61.1 | 61.1 | 64.4 | 34.6 | 32.3 | 34.2 | 15.3 | 14.2 | 15.4 | 3.1 | 3.9 | 3.6 | 1.8 | 1.9 | 2.1 |
| 4.4 | 65.9 | 63.9 | 69.4 | 37.1 | 33.3 | 36.0 | 16.2 | 15.2 | 16.5 | 3.3 | 4.6 | 4.4 | 3.4 | 3.6 | 3.2 |
| 6.6 | 66.8 | 64.9 | 67.6 | 37.5 | 35.1 | 34.5 | 16.2 | 16.3 | 16.3 | 3.5 | 4.8 | 4.5 | 3.3 | 4.2 | 4.1 |
| Significance | L* | L* | L* | L* | L* | Q* | L* | L* | L* | NS | L* | L* | L* | L* | L* |

[z]1 = Poor quality, not salable; 3 = good quality, salable; and 5 = excellent quality.
NS,*Nonsignificant or significant at $P = 0.05$.


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