'Tropic Honey' *Dieffenbachia*

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For many decades, *Dieffenbachia* species and cultivars, members of the family Araceae, have been important to the ornamental tropical foliage plant industry. *Dieffenbachias*' ability to adapt to interior environments, its ease of production, and its striking foliar variegation are major reasons for the plant's continued popularity and market share (Henny and Chen, 2004). Approximately 20 cultivars are commercially produced in Florida. For many years, new cultivar introductions were obtained only from private collections or as chance mutations. Most new cultivars are now being introduced from plant breeding and development programs (Henny 1995a, 1995b; Henny et al., 1987). The hybrid *Dieffenbachia* 'Tropic Honey' was developed and selected as a part of the tropical foliage plant breeding program at Mid-Florida Research and Education Center.

Origin and Description

Dieffenbachia 'Tropic Honey' was obtained from a cross of *Dieffenbachia* 'Victory' (Henny et al., 1987) and *Dieffenbachia* 'Tropic Marianne' (U.S. Plant Patent No. 8832). 'Tropic Honey' was selected because of its showy yellow-green leaf color, similar to 'Tropic Marianne'. It is highlighted by a bright white midrib and dark green margins. In addition, 'Tropic Honey' is well branched and has a compact appearance as a result of short petioles (Fig. 1). The dominant leaf color is bright yellow-green (RHS 145 BC) (Royal Horticultural Society [RHS], 1995) on the top (adaxial) surface and lighter yellow-green (RHS 145CD) on the bottom (abaxial) surface. The dark green leaf margins vary from 0.5 to 2.0-cm wide and are dark green (RHS 139A). On the bottom leaf surface, leaf margins are lighter yellow-green (RHS 147B). The leaf midrib is thick and prominent and ranges from a width of 1.0 cm at the base of the leaf to ≈ 0.7 to 0.8 cm at a distance equal between the leaf base and the leaf tip. The midrib gradually narrows to 1 to

2 mm as it intersects the dark margin near the leaf tip. The midrib on the adaxial surface is white (RHS 155A). On the abaxial leaf side, the midrib is darker; the outer quarter of each midrib edge is yellow-green (RHS 145B), whereas the central portion is yellow-green (RHS 145C). Leaves are held by short, clasping petioles, which give a compact growth habit. Petiole lengths average 10 to 14-cm subtending leaves that average 25 to 27 cm long. Petiole length is approximately half the leaf length. Leaf lengths average approximately twice the widths and reach a length of 25 to 27 cm and a width of 13.0 to 15.5 cm when mature. Stem color underneath the petiole is yellow-green (RHS 146BC).

Performance

Growth characteristics of *Dieffenbachia* 'Tropic Honey' were determined using 30 liners 20 weeks from tissue culture and well-rooted in 25-mm cell trays. Liners were potted into 1.6-L plastic pots containing a substrate of Vergro Container Mix A (Verlite Co., Tampa, Fla.). Plants were grown in a shaded greenhouse with a maximum irradiance of 125 $\mu\text{mol}\cdot\text{m}^{-2}\cdot\text{s}^{-1}$, natural photoperiod, and a temperature range of 15 to 34 °C. Plants were

Fig. 1. A mature plant of *Dieffenbachia* 'Tropic Honey' in a 3.9-L pot.

grown for 5 months from 28 Mar. 2000 until 15 Aug. 2000. Ten plants were grown at each of three fertilizer levels equivalent to 101, 134, and 168 $\text{g}\cdot\text{m}^{-2}\cdot\text{year}^{-1}$. The fertilizer levels were derived from a 3–0.4–0.8 ratio of N–P–K applied as a liquid at 100 mL per pot weekly. The experiment was set up in a completely randomized design. Data recorded at termination of the study included height with leaves pulled upright, canopy height and width, length and width of largest leaf, number of basal shoots, and a rating for visual quality in which 1 = dead, 3 = acceptable (ie, saleable), and 5 = excellent quality. Data were analyzed using analysis of variance procedures of the SAS program (SAS Inst., Cary, N.C.). Parameters with means showing significant differences were subjected to regression analysis.

Dieffenbachia 'Tropic Honey' grew well and reached marketable size in a 1.6-L container in 5 months. Higher fertilizer level resulted in significantly wider canopy width (Table 1). In mature plants, canopy width averaged ≈ 1.5 times canopy height. No other parameters yielded significant differences. Leaves averaged more than twice as long as wide. Plants averaged better than six basal shoots per plant, eliminating the need for multiple plants per pot to achieve a full look. Plant quality averaged good to excellent overall.

Availability

Dieffenbachia 'Tropic Honey' is intended for commercial producers growing finished plants in 1.6 or 3.9-L containers. 'Tropic Honey' is being patented and plants are being propagated by cooperating Florida tissue culture laboratories. Inquiries regarding participating laboratories may be obtained by writing the Florida Foundation Seed Producers, Inc., P.O. Box 309, Greenwood, FL 32443. Plants for research purposes may be obtained directly from the author.

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Table 1. Final pulled-up height, canopy height and width, length and width of the largest leaf, number of basal shoots, and visual quality of *Dieffenbachia* 'Tropic Honey' grown at three fertilizer levels (n = 10) for 5 months from 28 Mar. 2000 to 15 Aug. 2000.

N-g-m ⁻² ·year ⁻¹	Pulled up ht (cm)	Canopy		Largest leaf		No. of basal shoots	Quality ^z
		Ht (cm)	Width (cm)	Length (cm)	Width (cm)		
101	43.2	31.0	42.8	26.1	13.2	6.0	4.6
134	51.4	33.4	47.4	27.4	13.2	6.4	5.0
168	50.4	34.6	49.8	27.2	13.8	6.2	5.0
Significance ^y	NS	NS	L**	NS	NS	NS	NS

^zVisual rating in which 1 = dead, 3 = acceptable (ie, saleable), and 5 = excellent quality.

^yRegression analysis in which NS = not significant and L** = linear significance at $P = 0.01$.

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