'Key Lime' *Aglaonema*

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Additional index words. *Aglaonema nitidum*, *Aglaonema commutatum*, Chinese evergreen, foliage plant, foliage plant production, plant breeding

Aglaonema species, commonly named Chinese evergreen, were often collected from their native tropical habitats, propagated, and sold commercially as early as the 1930s (Smith and Scarborough, 1981). Currently, several *Aglaonema* cultivars have become important ornamental tropical foliage plants for commercial growers because they readily adapt to low light and low relative humidity levels encountered under interiorscape conditions. Protocols to control *Aglaonema* flowering (Henny, 1983) and new pollination techniques made seed production routine (Henny, 1985) and these breeding innovations have led to the production of many new hybrid cultivars in the past 20 years by both public and private breeders worldwide. Many such *Aglaonema* cultivars were released previously (Henny and Chen, 2001; Henny et al., 1992, 2003, 2008) by the Foliage Plant Breeding Program at the Mid-Florida Research and Education Center in Apopka, FL. *Aglaonema* 'Key Lime' is the newest named cultivar to be released from this breeding program (Fig. 1).

Origin

Aglaonema 'Key Lime' is a selection from two separate crosses. Initially, *A. commutatum* Schott 'Manila' was crossed with *A. commutatum* Blume 'Tricolor'. A subsequent F₁ hybrid (#15-2) was crossed to *A. nitidum* Kunth 'Curtisii'. 'Key Lime' (hybrid #257-12) was selected from the resultant population because of its unique combination of large plant size, vigorous growth, and foliar color that contains distinct areas of green, yellow-green and grayed green that are highlighted by white petioles (Fig. 1).

Description

The following color descriptions of *Aglaonema* 'Key Lime' are based on The Royal Horticultural Society's color chart (Royal Horticultural Society, 1995). The upper leaf surfaces of fully expanded mature leaves display background color dark yellow-green 147A. The center of the leaf is

variably spotted with lighter yellow-greens 154D and 144A–B. Leaf surface areas adjacent to the veins are feathered grayed green 191C. The midrib is yellow-green 154C–D, which additionally is streaked or mottled with yellow-green 144A–B. The primary veins are yellow-green 154C–D merging into grayed green 191C. The lower surface background color is fine-grained with yellow-greens 146B and 147B–C. There are random specks or mottling of white 155A, green-white 157B–C, or light yellow-green 145C–D. Venal areas of the lower leaf surface are mottled with green-white 157B–C or light yellow-green 145C–D. The midrib appearance of the lower leaf surface is white 155B and the primary veins are yellow-green 145C–D. Petiole color (proximal) is white 155A with an area adjacent to the stem of white 155D that is faintly tinged with small streaked specks of grayed orange 164D. The petiole wing color is white 155A often tinged with grayed orange 164D. Petiole color (distal) is white 155A–C.

Performance Tests

Growth tests were initiated using 20- to 25-cm long tip cuttings that held three to four leaves each. Cuttings were harvested from *Aglaonema* 'Key Lime' stock plants grown in a shaded greenhouse and stuck in 50-celled trays containing Fafard #2 Mix (Conrad Fafard, Inc., Agawam, MA; 55% Canadian peat:25% perlite:20%vermiculite). The cuttings were placed inside a propagation tent (maximum irradiance of 80 $\mu\text{mol}\cdot\text{m}^{-2}\cdot\text{s}^{-1}$) for 8 weeks. The rooted cuttings were allowed to acclimatize for 2 additional weeks. At that time (24 July 2007), 30 uniform rooted liners were selected and potted into 3.9-L pots using the same Fafard #2 substrate. Plants were grown in randomized block experimental design in a shaded greenhouse under a maximum irradiance of 125 $\mu\text{mol}\cdot\text{m}^{-2}\cdot\text{s}^{-1}$ in natural photoperiod and a temperature range of 15 to 34 °C. Plants were

Fig. 1. A 12-month-old *Aglaonema* 'Key Lime' that was photographed after being greenhouse-grown for 9 months in a 3.9-L pot. The plant was grown from a single rooted cutting.

grown using three fertilizer rates of Nutricote Plus 18N–2.6P–6.6K (Chisso-Asahi Fertilizer Co., Ltd., Tokyo, Japan) at 10, 15, or 20 g per container and were hand-watered as necessary. Ten plants at each fertilizer treatment were grown in a completely randomized design for 9 months. Fertilizer was reapplied every 3 months.

Data recorded at termination of the study included canopy height, canopy width, length and width of largest leaf, number of basal shoots, and a visual quality rating in which 1 = poor; 2 = fair (not saleable) 3 = acceptable (saleable); 4 = good quality; and 5 = excellent quality. Finished plants were moved into an interior growth room for 3 months under a light level of 25 $\mu\text{mol}\cdot\text{m}^{-2}\cdot\text{s}^{-1}$ for 12 h daily at a constant 24 °C. A second visual quality rating was measured after 3 months in the interior growth room conditions. Data were analyzed using analysis of variance procedures of the SAS program (SAS Institute Inc., Cary, NC).

Aglaonema 'Key Lime' grown in 3.9-L pots reached marketable size in 9 months. There were no significant differences in any of the growth parameters measured (Table 1). Plant quality averaged between good to excellent at all nutritional levels. After the additional 3 months growth under interior conditions, all plants maintained a good to excellent rating for visual quality.

Availability

Aglaonema 'Key Lime' is trademarked and is intended for commercial producers

Table 1. Canopy height and width, length and width of largest leaf, number of basal shoots, and visual quality of *Aglaonema* 'Key Lime' after 9 months growth in 3.9-L pots.

Nutricote ²	Canopy		Largest leaf		No. basal shoots	Visual quality ³
	Ht (cm)	Width (cm)	Length (cm)	Width (cm)		
10	50.8	70.0	35.7	14.8	2.6	4.3
15	51.8	70.2	35.3	14.5	2.7	4.2
20	49.8	69.1	35.3	14.7	2.5	4.3
Significance ⁴	NS	NS	NS	NS	NS	NS

²Nutricote = 18N–2.6P–6.6K (g/pot/3 months).

³Visual quality in which 1 = poor, 2 = fair, 3 = saleable, 4 = good, and 5 = excellent quality.

⁴Significance where NS = nonsignificant statistical differences.

Received for publication 30 Jan. 2009. Accepted for publication 28 Feb. 2009.

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growing finished plants in 3.9-L or larger containers. A patent application has been submitted to the U.S. Patent and Trademark Office and plant patent rights assigned to the University of Florida, Board of Trustees. Stock plants will be released to licensed Florida growers for propagation and distribution. Inquiries regarding licensing may be sent to Florida Foundation Seed Producers, Inc., P.O. Box 110200, Gainesville, FL 32611. Plants for research purposes may be obtained directly from the author.

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