'Moonlight Bay' *Aglaonema*

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Aglaonema cultivars (family Araceae), commonly called Chinese evergreens, are important ornamental tropical foliage plants because they readily adapt to the low light and low relative humidity levels encountered under interior conditions. Historically, most new *Aglaonema* cultivars were introduced directly from the wild or were sports-selected from established cultivars. Control of *Aglaonema* flowering (Henny, 1983) and development of pollination techniques (Henny, 1985) have led to the production of many new cultivars in the past 20 years by both public and private breeders.

Origin

Aglaonema 'Silver Bay' (Henny et al., 1992) was one of the first interspecific hybrids developed in the foliage plant breeding program of the Florida Agricultural Experiment Station at the Mid-Florida Research and Education Center (MREC)—Apopka. 'Silver Bay' is a very popular cultivar because of its beautiful variegated foliage, good growth habit, and excellent performance in interior conditions.

Commercially, tissue culture propagation is being used to speed initial release of hybrids to producers and was used to propagate *Aglaonema* 'Silver Bay'. *Aglaonema* 'Moonlight Bay' is a mutation found among a population of tissue-cultured *Aglaonema* 'Silver Bay' plants. The original 'Moonlight Bay' mutation was selected because one of the two foliar variegation patterns normally present in 'Silver Bay' was only partially expressed. 'Silver Bay' has a continuous gray band of variegation extending throughout the entire leaf blade, whereas in 'Moonlight Bay', this band is very erratic and covers less than half the area as in 'Silver Bay'. The plant was increased by stem cuttings and grown at MREC. Once propagated, 'Moonlight Bay' plants uniformly expressed the new variegation pattern and also maintained the desirable horticultural characteristics, including excellent plant form, growth habit,

and vigor of the original parent plant. This new cultivar was subsequently selected for release through the foliage plant breeding program of MREC.

Description

Mature *Aglaonema* 'Moonlight Bay' leaves are lanceolate 11 to 12 cm wide and 28 to 30 cm long. Leaf margins are entire and the lamina on either side of the midrib tends to be of slightly unequal widths, resulting in some curving of the blade toward the narrower side. Leaves exhibit an uneven and sporadic central gray-green (RHS 191A–B; Royal Horticultural Society, 1995) area that extends out from each side of the midrib to cover up to half of the total leaf surface (Fig. 1). In some areas, this gray area is very narrow, whereas in others, it covers half the leaf from midrib to margin. Leaf margins are green (RHS 139A) and meet the lighter gray-

Fig. 1. A mature *Aglaonema* 'Moonlight Bay' plant in a 1.6-L pot.

green-colored central area along irregular borders. The undersides of the leaves are a uniform green (RHS 137C). The outer petiole wings are yellow-green (RHS 147D) and blend into the petiole center that is a uniform lighter yellow-green (RHS 145C). As it nears the leaf blade, the entire petiole color becomes a uniform RHS 147C. The stem color blends from areas that are a darker yellow-green (RHS 146B–C) to lighter areas in the same color range (RHS 152C–D). These colors are not normally visible as a result of the clasping nature of the petiole wings that surround the stem.

Performance

Growth characteristics of *Aglaonema* 'Moonlight Bay' were determined using 50 newly rooted stem cuttings with four to five leaves. Plants were potted into 1.6-L plastic pots containing a substrate of VerGro Container Mix A (Verlita Co., Tampa, FL). The experiment was conducted in a shaded greenhouse with a maximum irradiance of 125 $\mu\text{mol}^{-1}\cdot\text{m}^{-2}$, natural photoperiod, and a temperature range of 15 to 34 °C. Ten plants were grown for 9 months (from Oct. 2003 until July 2004) at each of five fertilizer levels equivalent to 101, 134, 168, 202, and 235 $\text{g}\cdot\text{m}^{-2}$ N per year in a completely randomized design. Fertilizer levels were derived from 3N–1P–2K applied as a liquid drench at 100 mL per pot per week. Data recorded at termination of the study included canopy height, canopy width, pulled-up height (distance from soil surface to the tip of the tallest leaf when held straight up), length and width of the largest leaf, number of basal shoots, and a visual quality rating in which 1 = poor, 3 = acceptable (saleable), and 5 = excellent quality. Data were analyzed using analysis of variance procedures of the SAS program (SAS Institute, Cary, NC). Parameters with means showing significant differences were subjected to regression analysis.

Aglaonema 'Moonlight Bay' reached marketable size in 9 months. There were no significant differences in canopy height or width, pulled-up height, or basal shoot number (Table 1). Leaf length showed a significant quadratic variability among fertilizer levels and leaf width was significantly greater at higher fertilizer levels. Visual

Table 1. Final canopy height and width, pulled-up height, length and width of largest leaf, number of basal shoots, and visual quality of *Aglaonema* Moonlight Bay grown from cuttings in 1.6-L pots for 9 months from Oct. 2003 until July 2004.

N ($\text{g}\cdot\text{m}^{-2}/\text{yr}$)	Canopy		Pulled-up ht	Leaf		No. basal shoots	Quality ^z
	Ht	Width		Length	Width		
101	34.7	52.5	53.9	28.9	11.0	2.2	4.1
134	34.8	52.6	54.6	30.2	11.4	2.8	4.6
168	34.6	55.0	55.6	30.3	11.6	3.6	4.4
202	34.1	52.2	54.7	29.8	11.8	3.4	4.7
235	34.0	54.0	55.3	30.1	11.8	3.7	4.8
Significance ^y	NS	NS	NS	Q*	L**	NS	L**

^zVisual rating where 1 = dead, 3 = saleable, and 5 = excellent quality.

^yRegression analysis where NS, L**, and Q* = nonsignificant, linear significance at the 0.01 level, and quadratic significance at the 0.05 level, respectively.

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quality showed a significant linear effect, but all plants were rated as excellent or near excellent in quality. There was a slight loss of quality at the lowest and highest nutritional levels. Plants were well branched averaging greater than three basal shoots per plant.

Availability

Aglaonema 'Moonlight Bay' is intended for commercial producers growing finished plants in 1.6- or 3.9-L containers. A patent

application has been submitted to the U.S. Patent and Trademark Office. Plant patent rights have been assigned to the Florida Foundation Seed Producers. Stock plants have been released to licensed Florida tissue culture laboratories for propagation and distribution. Inquiries regarding participating laboratories may be obtained by writing to the Florida Foundation Seed Producers, P.O. Box 309, Greenwood, FL 32443. Plants for research purposes may be obtained directly from the author.

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