HortScience 43(6):1900–1901. 2008.

‘Mondo Bay’ *Aglaonema*

Richard J. Henny[1,3] and J. Chen[2]
University of Florida, Institute of Food and Agricultural Science, Mid-Florida Research and Education Center, 2725 Binion Road, Apopka, FL 32703

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

The genus *Aglaonema* (family Araceae), commonly referred to as Chinese evergreens, have been important ornamental tropical foliage plants since the 1930s (Smith and Scarborough, 1981). *Aglaonema* are a reliable crop for commercial growers and plants readily adapt to low light and low relative humidity levels encountered under interiorscape conditions. The first commercial *Aglaonema* cultivars were plants collected from their native tropical habitats, propagated, and sold as ornamentals. Foliage plant breeding studies developed protocols to control *Aglaonema* flowering (Henny, 1983) and new pollination techniques made seed production routine (Henny, 1985). 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. Five 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 (MREC) in Apopka, FL. These cultivars currently are very successful commercial foliage plants and have become known as the “Bay” series. ‘Mondo Bay’ is the sixth named cultivar to be part of this series (Fig. 1).

Origin

Aglaonema ‘Mondo Bay’ is a selection (hybrid #742-3) from an interspecific cross of *A. commutatum* Schott ‘Treubii’ with *A. nitidum* Curtisii. ‘Mondo Bay’ was selected from a hybrid population of 87 plants because of its vigor, excellent basal shoot production, small, narrow leaves, attractive foliar variegation pattern, and arching plant form.

Description

The color descriptions that follow are based on The Royal Horticultural Society’s color chart [Royal Horticultural Society (RHS), 1995]. *Aglaonema* ‘Mondo Bay’ upper leaf surfaces display a dark green background, edge, and midrib (RHS 139A) that are highlighted by lighter gray–green areas (RHS 191A; Fig. 1). These gray–green variegated areas appear in uneven 8- to 10-mm wide bands associated with the lateral veins. The bands originate from the midrib and angle toward the leaf tip to roughly form a V pattern. There are three to four such bands in each leaf separated by the darker green background strips. The leaf underside is a lighter green field (RHS 137C) with the midrib and lateral veins a lighter yellow–green (RHS 148C/D). The leaves are contrasted by petioles that are yellow–green (RHS 148D). Petiole flanges are RHS 148D and contain darker spots of green (RHS 137C). The stem, although hidden from view as a result of the clasping nature of the petioles, exhibits a blend of green (RHS 137C) and lighter yellow–green RHS 148C/D that coalesce in a wavy pattern.

Performance

Growth tests were initiated using 10- to 12-cm long tip cuttings that held three to four leaves each. Cuttings were harvested from *Aglaonema* ‘Mondo Bay’ stock plants grown in a shaded greenhouse and stuck in 50-celled trays containing Vergro Container Mix A (Verlite Co., Tampa, FL) on 25 Aug. 2006. The cuttings were placed inside a propagation tent (maximum irradiance of 80 $\mu mol \cdot m^{-2} \cdot s^{-1}$) for 8 weeks. The rooted cuttings were allowed to acclimatize for 2 additional weeks. At this time, one-half of the liners were potted one plant per 1.6-L pot using with Vergro Container Mix A (60% Canadian peat:20% perlite:20% vermiculite) and one-half using Fafard 2 Mix (Conrad Fafard, Agawam, MA; 55% Canadian peat:25% perlite:20% vermiculite) substrate. Plants were grown in randomized block experimental design in a shaded greenhouse, a maximum irradiance of 125 $\mu mol \cdot m^{-2} \cdot s^{-1}$, under natural photoperiod and a temperature range of 15 to 34 °C. Plants were grown using three fertilizer treatments. The fertilizer treatments were: 1) Osmocote Plus 15N–4P–10K (Scotts-Sierra Horticultural Products Company, Marysville, OH); 2) Nutricote Plus 18N–2.6P–6.6K (Chisso-Asahi Fertilizer Co., Ltd., Tokyo); and 3) Peter’s liquid 20N–8.8P–16.6K (Scotts-Sierra Horticultural Products Company). Ten plants per each fertilizer treatment and soil mix (60 plants total) were grown in a completely randomized design for 9 months. Plants treated with Osmocote and Nutricote were retreated every 3 months. The Peter’s fertilizer treatment was applied as a 200-mL liquid drench per pot once weekly throughout the duration of the experiment. 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

Fig. 1. A single 12-month-old specimen of *Aglaonema* ‘Mondo Bay’ in a 1.6-L pot showing a dense basal-branching habit. This plant was photographed after being greenhouse-grown for 9 months and maintained indoors for an additional 3 months.

Received for publication 6 May 2008. Accepted for publication 12 June 2008.
[1]Professor.
[2]Associate Professor.
[3]To whom reprint requests should be addressed; e-mail hennyrjz@ufl.edu

Table 1. Canopy height and width, length and width of largest leaf, number of basal shoots, and visual quality of *Aglaonema* 'UF-742-3' after 9 months growth in 1.6-L pots.

Fertilizer type[z]	Canopy ht (cm)	Canopy width (cm)	Longest leaf length (cm)	Longest leaf width (cm)	No. basal shoots	Quality[y]
Osmocote	21.0 b[x]	43.2 b	20.3 a	3.36 a	8.56 b	4.39 a
Nutricote	21.6 b	43.8 b	19.2 a	3.47 a	8.28 b	4.39 a
20-20-20	23.3 a	48.4 a	20.3 a	3.53 a	10.7 a	4.83 a

[z]Osmocote Plus = 15N–4P–10K (5 g/pot/3 months); Nutricote = 18N–2.6P–6.6K (5 g/pot/3 months; 20N–$20P_20_5$–$20K_20$ = Peters liquid 20N–8.8P–16.6K applied 200 mL/pot/week at 200 mg·L^{-1}.
[y]Visual quality in which 1 = poor, 2 = fair, 3 = saleable, 4 = good, and 5 = excellent quality.
[x]Mean separation within columns by Duncan's multiple range test, $P < 5\%$.

quality; and 5 = excellent quality. Finished plants were moved into an interior growth room for 3 months with a light level of 25 µmol·m^{-2}·s^{-1} for 12 h daily at a constant 24 °C. Data were analyzed using analysis of variance procedures of the SAS program (SAS Institute, Cary, NC).

Results

Aglaonema 'Mondo Bay' grown in 1.6-L pots reached marketable size in 9 months (Fig. 1). There were no significant differences in growth between soil mixes so the data were combined for analysis. Canopy height and width and number of basal shoots were significantly higher with liquid fertilizer (Table 1). Plants treated with liquid fertilizer averaged 10.7 basal shoots, which was significantly better than the 8.6 and 8.3 for Osmocote and Nutricote treatments, respectively. There were no significant differences in leaf size or overall visual quality resulting from fertilizer effects. Plant quality averaged between good to excellent at all nutritional levels. After an additional 3 months growth under interior conditions, all plants had a visual quality rating of excellent (Fig. 1).

Availability

Aglaonema 'Mondo Bay' will be trademarked and is intended for commercial producers growing finished plants in 1.6- or 3.9-L containers. A patent application will be 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.

Literature Cited

Henny, R.J. 1983. Flowering of *Aglaonema commutatum* 'Treubii' following treatment with gibberellic acid. HortScience 18:374.

Henny, R.J. 1985. In vivo pollen germination of *Aglaonema* affected by relative humidity. HortScience 20:142–143.

Henny, R.J. and J. Chen. 2001. *Aglaonema* 'Golden Bay'. HortScience 36:1142–1143.

Henny, R.J., J. Chen, T.A. Mellich, and M.S. Brennan. 2008. 'Moonlight Bay' *Aglaonema*. HortScience 43:1598–1599.

Henny, R.J., J. Chen, and D.J. Norman. 2003. *Aglaonema* 'Diamond Bay' and 'Emerald Bay'. HortScience 38:1446–1447.

Henny, R.J., R.T. Poole, and C.A. Conover. 1992. 'Silver Bay' *Aglaonema*. HortScience 27: 1238.

Royal Horticultural Society. 1995. The Royal Horticultural Society's colour chart. 3rd ed. Royal Hort. Soc., London, UK.

Smith, C.N. and E.F. Scarborough. 1981. Status and development of foliage plant industries, p. 1–39. In: Joiner, J. (ed.). Foliage plant production. Prentice-Hall, Englewood Cliffs, NJ.