UF UNIVERSITY of FLORIDA
IFAS Extension

ENH 1091

New Florida Foliage Plant Cultivar: 'Emerald Bay' *Aglaonema*[1]

R.J. Henny, J. Chen, and T.A. Mellich[2]

Figure 1. A mature *Aglaonema* 'Emerald Bay' grown in an 8-inch (3.9 L) container.

Origin

Aglaonema cultivars (Araceae plant family), commonly called Chinese evergreens, are important tropical foliage plants. *Aglaonema* are indigenous to Southeast Asia. For more than twenty years, most new *Aglaonema* cultivars had to be introduced directly from the wild or were sports selected from established cultivars. Typically these plants were variants of *Aglaonema crispum, A. commutatum* or *A. modestum*. Control of *Aglaonema* flowering (Henny; 1983) and development of pollination techniques (Henny; 1985) has since led to the production of many new cultivars by both public and private breeders.

Aglaonema 'Golden Bay' (Henny and Chen; 2001) was an interspecific hybrid developed through the Foliage Plant Breeding Program of the University of Florida at the Mid-Florida Research and Education Center (MREC) - Apopka. It is one of the most popular ornamental cultivars due to attractive foliage, excellent growth habit and outstanding performance in interior conditions.

Tissue culture propagation was used to speed release of *Aglaonema* 'Golden Bay' to commercial producers. *Aglaonema* 'Emerald Bay' originated as a mutation found among a population of tissue-cultured *Aglaonema* 'Golden Bay' plants.

Aglaonema 'Emerald Bay' was selected because it lacked the yellow background coloration present in normal 'Golden Bay' leaves and petioles. The selection was increased by stem cuttings and observed at MREC-Apopka for stability. *Aglaonema* 'Emerald Bay' remained stable after propagation, maintaining its new foliar pattern and other desirable traits of the parent. Therefore this cultivar has been selected for release.

1. This document is ENH 1091, one of a series of the Environmental Horticulture Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. Original publication date February 2009. Reviewed January 2012. Visit the EDIS website at http://edis.ifas.ufl.edu.

2. R.J.Henny, professor, Department of Environmental Horticulture; J. Chen, associate professor, Department of Environmental Horticulture; T.A. Mellich, Biologist; University of Florida, Institute of Food and Agricultural Science, Mid-Florida Research and Education Center, 2725 Binion Road, Apopka, FL 32703.

Description

Aglaonema 'Emerald Bay' leaves are lance shaped 10-11 cm (4-5 in.) wide and 30-33 cm (12-13 in.) long. The leaf margin is smooth (entire) and the leaf tissue (lamina) on either side of the midrib tends to be of unequal widths, resulting in a slight curving of the blade towards the narrower side. Leaves exhibit a central grey-green area that extends out from each side of the midrib to cover slightly over half of the total leaf surface (Fig 1). Leaf margins are green and intersect the lighter grey-green colored central area along irregular borders. This overlap creates small distinct patches of a third color that is a darker grey-green.

The petiole consists of three colors. The outer wings are yellow-green and contain many small speckles spread throughout that are lighter yellow-green. This pattern blends into the petiole center, which is even lighter. The stem color is also varying shades of yellow-green but is not readily visible due to the clasping habit of the petiole, which surrounds the stem.

Figure 2. *Aglaonema* 'Golden Bay,' parent of *Aglaonema* 'Emerald Bay,' performs well in commercial interiorscape conditions.

Performance

Growth characteristics of *Aglaonema* 'Emerald Bay' were determined using 30 newly rooted cuttings with 4-5 leaves each. Plants were potted into 6-inch (1.6 L) plastic pots containing VerGro Container Mix A (Verlite Co., Tampa, FL 33610). Plants were grown in a greenhouse under 70% shade, a temperature range of 59 to 93°F (15 to 34OC) and in natural photoperiod. Growth studies using a completely randomized design were conducted for 9 months (Aug 1998 to May 1999) at three fertilizer levels equivalent to a total of 1.4, 1.8 and 2.2 g N per pot. Fertilizer levels were derived from a 3:1:2 ratio of N:P:K applied as a liquid at 100 ml per pot per week.

At the termination of the growth tests, canopy height, length and width of largest leaf, number of basal shoots and a visual quality rating where 1 = poor; 3 = acceptable (saleable) and 5 = excellent quality were recorded.

Aglaonema 'Emerald Bay' cuttings reached marketable size in 9 months. Plants were well- branched averaging approximately 3 basal shoots per plant. There were no significant differences in canopy height, leaf size or basal shoot number due to different fertilizer levels (Table 1).

Visual quality ratings showed no statistically significant differences in response to fertilizer level. All plants were rated excellent or near excellent in quality and were marketable.

Aglaonema 'Emerald Bay' readily adapts and performs well under low light and low humidity levels encountered in interiorscape conditions. This plant does not require post production acclimatizing prior to installation in an interior setting.

Availability

Aglaonema 'Emerald Bay' is intended for commercial producers growing finished plants in 6-inch (1.6L) or 8-inch (3.9 L) containers. A patent application for this cultivar has been submitted to the United States Patent and Trademark Office and plant patent rights have been assigned to the Florida Foundation Seed Producers. Stock plants have been released to University of Florida licensed cooperating Florida tissue culture labs for propagation and distribution. Inquiries regarding participating labs 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.

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. 'Golden Bay' Aglaonema. HortScience 36:1142-1143.

Table 1. Final canopy height, length and width of largest leaf, number of basal shoots and visual quality of *Aglaonema* 'Emerald Bay' grown for 9 months from rooted cuttings in 6-inch (1.6 L) pots from August until May.

(g) per pot N[z]	Canopy height (cm)	Leaf length (cm)	Leaf width (cm)	No. basal shoots	Visual quality[y]
1.4	35.9	29.5	9.4	2.3	4.2
1.8	36.8	29.3	9.1	2.4	4.6
2.2	35.3	29.1	9.3	2.6	4.6
Significance[x]	NS	NS	NS	NS	NS

[z] Total amount of N applied during the 9 month production period.
[y] Visual rating where 1 = poor, 3 = saleable and 5 = excellent quality.[x] NS = no significant difference.