

leaves that are edged with yellow. Plants are propagated by grafting. This cultivar is hardy to zone 5.

Magnolia 'Monland Timeless Beauty'[™]. This is an exclusive patented cultivar of Monrovia Nursery. A small evergreen tree, it reaches a size of 15 ft by 15 ft after 15 years. Large, creamy white, fragrant flowers 9 to 10 in. in diameter are produced from early May until September. After this cultivar blooms, it resumes vegetative growth and will rebloom the same year, unlike other evergreen magnolias that bloom only once per year. This cultivar is believed to be a cross between *Magnolia grandiflora* and *Magnolia virginiana*, and is hardy to zone 6.

CALATHEAS

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Included in the genus *Calathea*, are some of the most attractive species of interior foliage plants. In their native habitat, they exist as understory plants in the tropical forests of south and central America, and some of the associated Caribbean islands. As a group, they are very desirable due to their very colorful and exotic foliage, and their ability to flourish under interior light levels as low as 50 foot candles. Until recently, most of the cultivars I will describe have been available in the trade only in very limited quantities, and at a premium price. Calatheas are very difficult to grow from seed, and are commonly propagated by the slow and painstaking method of division of the underground rhizomes. Tissue culture micropropagation techniques are presently making many of these cultivars available to the trade in significant numbers at a reasonable price.

Calatheas are a bit more exacting in their cultural requirements than many other types of interior foliage plants. They have a reputation for being salt and fluoride sensitive, and sometimes exhibit burning along the margins and leaf tip if grown incorrectly. My personal experience is from growing these plants in San Diego, California, where the level of "Total Dissolved Salts" (TDS) in the irrigation water reaches as high as 700 ppm. Under the correct cultural conditions, even with marginal water quality, these problems can be minimized. Calatheas do best in a light soil medium with a high water-holding capacity. They should be grown at a light level of 1500 foot candles, and fertilized at every irrigation with an N-P₂O₅-K₂O ratio of 3-1-2 at a level of 100 ppm N. They should not to be waterstressed, but should be kept evenly moist. Spider mites can be a major pest, and are controlled with Pentac[®] or Avid[®], as needed.

Calathea orbifolia: A Brazilian species to 24 in. with large 8 to 10 in. elliptical leaves exquisitely striped in two shades of green.

Calathea roseo-picta: a flat-growing Brazilian species to 12 in. with large 9 in. elliptical, glossy purple leaves with pink markings; undersides purple.

Calathea warscewiczii: a vigorous species to 30 in. from Costa Rica, referred to in the trade as 'Jungle Velvet'; exhibits velvety, deep green leaves with a light green feathering along the midrib; underside a rich burgundy red.

Calathea elliptica 'Vittata': a bushy cultivar from Colombia having light green leaves with symmetrical stripes of silver-green to white.

Calathea picturata 'Argentea': an upright-growing cultivar to 24 in. from Venezuela; leaves a shining silver, except for a border of dark green along the margin; underside wine-red.

Calathea majestica 'Roseo-lineata': an upright-growing cultivar to 36 in. from the Amazon having metallic, olive-green leaves on long petioles, marked with closely set pairs of pink to white lateral stripes; underside purple.

Calathea makoyana: a bushy species from Minas Geraes, Brazil, referred to in the trade as the "peacock calathea", eventually reaching a height of 36 in.; oval-shaped leaves exhibit exotic, olive-green markings in a translucent field of yellow-green; undersides purple-red with a similar pattern of markings.

A NEW FOG AEROPONICS SYSTEM FOR PROPAGATING AND GROWING HORTICULTURAL PLANTS¹

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The advantages of soilless and detached media for propagation and cultivation of many horticultural crops are self-evident. All these systems, including many types of hydroponic units, rely on the use of a solid medium to support the roots. Aeroponics is a unique method of propagating and growing plants with their root systems enclosed within a mist chamber.

Recently, we developed a new, improved, aeroponics system, based on ultrasonic-generated fine fog. The system consists of 4 modules, each made of a lower opaque plastic compartment which contains the roots, and an upper transparent hood for the shoots. The modules are fed from underneath by a central ultrasonic fog generator, which releases a fine, 1 to 5 micron droplet, fog. The fog is equally distributed into the lower and upper compartments of the

¹ Poster presentation