REIGER BEGONIAS
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The Reiger Begonia, one of the most popular pot plants in northern Europe, was developed from hybrid crosses of winter-flowering and tuberous-rooted begonias.

This large-flowered pot or hanging plant does have specific cultural requirements and most cultivars are photoresponsive.

Normally the 2 1/4" tip or leaf cutting is propagated by a specialist. These specialists will also provide schedules and suggested cultivars for your area or region.

Cultivar selection is outlined by Wikesjo and Schussler (1982) and Mikkelson (1978) (see references).

Media—Hiemalis begonia prefers a highly organic, well-drained mix. Use a 3 part fibrous peat moss, 2 part Horticultural Grade Perlite or shredded styrofoam, and 1 part field soil. The media pH should be adjusted with Dolomitic Limestone to 5.5-6.0 and superphosphate added to raise phosphorus to a medium level. Don't Guess—Soil Test.

Planting Depth—Since Reiger begonias are susceptible to root rot organisms, plant 2 1/4's so that the root ball is about 1/4 inch above the container soil line. A soil drench of Dexon-Boniate several days after planting is another suggested precaution to follow against the root-rot organisms.

Temperature—Maintain 65-70°F temperature for several weeks to stimulate growth. Once plants are established, lower the temperature to 60-64°F for floral initiation and development. Finish plants at 60-62°F.

Light Requirements—Grow spring to fall under about 50% shade. Spring to fall light intensity should not exceed 3000 foot candles. Long days must be artificially provided at 20 f.c. minimum for 3 hours September and March, 4 hours October and February, 5 hours November and January, and 6 hours December. Floral initiation occurs in responsive cultivars under short day conditions. Black-out covers must be applied 7 p.m. to 7 a.m. for a minimum of three (3) weeks during the period May to mid-September.

ROOT MEDIA LABELLING

Soilless root media usually contain some fertilizer. In addition to the limestone (which by law is not a fertilizer) and superphosphate, some nitrogen and potassium along with a sprinkling of micronutrients and wetting agent are incorporated.

The label doesn't provide much information. Actually, many companies would be willing to tell you what is incorporated in the mix. But, if they tell you the N, P, K levels on the label, they must sell it as a fertilizer. This means registering the product as a fertilizer and paying fees in every state in which it is sold.

The floriculture working group of the American Society for Horticultural Science worked on this problem for a number of years. It appeared that approval might be obtained to list N, P, K levels provided that the total did not exceed 1% by weight. But, as reasonable as the request might have seemed to commercial growers, the Nomenclature Committee of AAPFCO rejected the proposal.

Dr. Howland (Southern Florist and Nurseryman, 4/23/82) and Mr. Peter Atkins (Greenhouse Manager, September 1982) have added support to repeal of these laws which suppress information. Dr. Howland blames beaurocrats. Mr. Atkins hopes that good sense will prevail.

If you wish to know what is in the root media you are using, exert any influence you can muster to remove what appears to be governmental meddling which is unnecessary and counterproductive.

Growers should have the privilege of knowing what is in the root media they are using.
In summary, this experiment confirms results from some other trials with sphagnum moss. The primary result seems to be a stimulation of early root activity. This translates into additional vigor during the life of the plant. With increased aeration along with higher water holding capacity, some small mistakes in culture may be "covered up," and the keeping quality after sales may be enhanced.

Water and Fertilizer--A uniform supply of moisture and nutrients promotes rapid vegetative growth. Floral development is aided by reductions of water and fertility. During vegetative growth apply 150 ppm nitrogen and potassium at each irrigation or with weekly fertilization schedules apply 250 to 300 ppm N and K. During floral initiation and development, reduce fertilizer rate about 1/8-1/4 above rates. Use only nitrate forms of nitrogen during the cool winter months.

Growth Regulators--Cycocel (CCC) may be required to control the height and habit of the more vigorous cultivars. Apply a spray about 3 weeks after potting at the rate of 8 ozs/5 gallons water (1500 ppm solution). The more vigorous cultivars may require a second or third application at a 7-10 day interval.

**Problems**

**Control**

Root Rot Organisms

See Planting Depth section.

Botrytis

Daconil, Benlate

Powdery Mildew

Sulfur vaporized, Karathane, Benlate

Aphids

Pirimor or Orthene

Cyclamen Mite

Kelthane E.C.

Worms

Dipel

**Additional Cultural Tips**

1. Maintain good air circulation especially during fall, winter and early spring.

2. Do not apply water on foliage late in the day.

3. Soil test to assure optimum rate of growth.

4. Consult jobber or supplier for specific unique cultivar requirements.

5. Maintain uniform growing temperatures.

**References**

