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Ornamental Ginger as Flowering Potted Plants – Part 1 General Aspects

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BACKGROUND

Ornamental ginger (Zingiberaceae family) are a diverse and versatile group of plants. They are increasing in usage as flowering potted plants, landscaping, and fresh cut flowers. The various heights, flower colors, and postproduction longevity (up to four weeks or longer) of these tropical and subtropical plants brings diversity to the floriculture industry. Characteristics that make them attractive as flowering potted plants are: (1) the ease of production in the shade house or greenhouse; (2) unique foliage; (3) production of many flowering stems per pot; (4) long-lasting colorful bracts; (5) a 90 to 100 day production cycle; and (6) few disease or insect problems. In addition to being used as potted plants, they can be marketed not only for use in year-around interior landscapes but also as either

perennials (USDA Zone 8 - 11) or summer annuals in exterior landscapes depending upon the climate. The most common genera used for these purposes include: *Curcuma*, *Globba*, *Hedychium*, *Kaempferia*, and *Siphonochilus*.

Most gingers are herbaceous perennials with aromatic, short, thickened (or long, thin) rhizomes. Some rhizomes, e.g., *Curcuma* and *Globba*, have tuberous storage vessels attached by a modified underground stem that have been termed “t-roots” or “milk sacs”.



Underground storage organ of *C. alismatifolia*.

Many of these gingers are produced in Thailand. The rhizomes are harvested from November to December and

held in dry storage for approximately 3 months. Gingers can also be purchased in plug trays from tissue culture companies. However, the *Kaempferia* species are the only ones recommended for growing from a tissue cultured plug, if a finished plant is desired in a 60 day period. Those gingers grown as flowering potted plants (see Table 1) flower more quickly and uniformly when grown from rhizomes. If tissue-cultured plants are purchased, a fuller plant can be grown if plants are allowed to go dormant in the fall by withholding water as the days became shorter and temperatures become cooler. Many growers then remove the dead foliage and force the ginger rhizomes in the same containers the next spring, i.e., after February.

As with most bulbous and tuberous crops, the media must have excellent drainage and water holding capacity. The soils of the native habitat of gingers have a slightly acidic to neutral pH. Thus, dolomitic limestone should be added to the medium to provide a pH of approximately 6 to 7. A “standard” depth container or a deeper pot must be used. It will not only provide drainage but also provide

space for placing the tuberous roots attached to the rhizome toward the bottom of the pot while allowing the covering of the rhizome with approximately one inch of media. Breaking the tuberous roots from the rhizome it not advised. It may decrease flowering and delay time to emergence. Thus, care must be taken to keep the entire tuberous root intact. Two or three, two year old rhizomes planted in a six inch pot will produce a marketable finished plant. Some companies grade the

rhizomes. The grading system is usually based on the number of tuberous roots per rhizome. After the initial irrigation, plants should be given a preventative fungicide treatment.

Greenhouse temperatures should be kept at 85 to 90°F until emergence of shoots. This helps to promote a more uniform plant emergence.

After emergence, greenhouse temperatures should be lowered to less than 85°F.

Some ginger are boron accumulators, which may lead to marginal necrosis. Therefore, plants should be fertilized with a water soluble fertilizer low in boron or without boron. Other cultural requirements are provided in Table 1.

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Table 1. Species information on the most popular ornamental gingers.

Species	Average Plant Height	Inflorescence and Foliage
<i>Cornukaempferia aurantiflora</i>	1 foot	Leaves with silver feathered margins to dark maroon centers, small orange flowers. 40 to 60% shade.
<i>Curcuma alismatifolia</i>	2 feet	Tulip shaped flowers, ~ 3 - 4", pink or white. PGR required. Full sun.
<i>Curcuma cordata</i>	2 - 3 feet	Cone shaped flowers, ~ 4 to 6", pink. PGR required. Full sun to 50% shade.
<i>Curcuma roscoeana</i>	2 - 3 feet	Cone shaped flowers, ~ 4 - 5", bright orange. PGR required. 40 to 60% shade.
<i>Curcuma</i> sp. 'Precious Patuma'	1 foot	Tulip shaped flowers, ~ 1 - 2", pink, pink w/green tips. Full sun. No PGR required..
<i>Curcuma petiolata</i> 'Emperor'	2 to 3 feet	Grown for variegated foliage. Full sun to 50% shade. No PGR required.
<i>Curcuma thorellii</i> 'Chiang Mai Snow'	1 foot	Tulip shaped flowers, ~ 2 - 3", pure white. Grown from rhizome. No PGR required.
<i>Globba</i> spp.	1 to 2 feet	Arching pendulate flower stalks with white, pink, dark purple, or yellow bracts. Grow from rhizome. 'White Dragon' requires a PGR drench. 40 to 60% shade.
<i>Kaempferia</i> spp.	1 to 3 feet	Grown primarily for foliage. Can be grown from tissue culture or rhizome. 40 to 60% shade. No PGR.
<i>Siphonochilus</i> spp.	2 to 3 feet	Flowers borne on spike, yellow or pink. Grow from rhizome. 40 to 60% shade. PGR may be required.