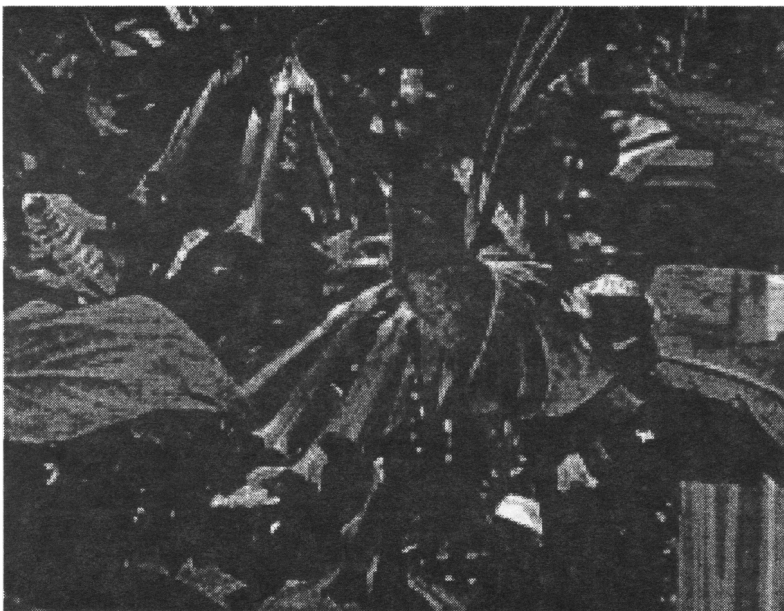


Iochroma grandiflorum

Sarah Flint and Neil Anderson

Hort 4051, Potted Plant Production Class, University of Minnesota

In Hort 4051, students chose two species not previously grown as potted plants to research for potential use as flowering, potted crops. This is the first of many reports on new crops with developmental potential we will provide to you. Students role-played being hired as a New Crops Specialist for Floritech Company with their first assignment being a review of the literature, an estimate of the crop potential, and proposed production schedules for the first year. Students enrolled in Hort 4051 the next year will have the task of implementing the recommended production protocols to determine whether each species has a potential market. The summary report for each crop was in the form of a memorandum to the Floritech staff.



To: Grower Staff, Technical Staff, Sales Staff,
The President

From: Sarah Flint, New Crops Specialist
Re: New Crop Summary & Recommendations

After completing a thorough review of the published taxonomic, popular press, seed/vegetative catalogs, scientific & trade literature, and the internet, I have summarized the pertinent information for *Iochroma grandiflorum*. In addition, I have included my recommendations for the initial production trial.

Taxonomy.

Scientific name: *Iochroma grandiflorum*

Common name: None

Synonyms: *Cleochroma grandiflorum*, *Choenethes*

Family: Solanaceae

Geographic Distribution.

Continents: Central and South America; Countries: Ecuador and Peru; Latitudinal Range: 4 degrees North to 4 degrees South; Altitude: 2,440-3,500 meters; General Climactic Conditions: Tropical. Winter Hardiness: Zones 10-11 as a permanent perennial and zone 9b as a returning perennial.

Taxonomic Description.

Small herbaceous shrub that grows 8 meters in the wild; erect growth with arching branches, carry clusters of long tubular flowers. Leaves: Sticky with 1-2.5 mm white hairs; alternate 7-14 x 4-8 cm, ovate-elliptic. Flowers are on stalks 1-8 cm in length; corolla is trumpet shaped, blue to lavender-blue, 4.5-7 cm long, 5-7 mm wide, with lobes. Calyx is 7-12 x 4-11 mm, bell shaped, ribbed with 5 teeth, densely hairy. Season of Bloom: Early summer onwards through fall.

Uses by Indigenous People:

Leaves were smoked or made into tea.

Cultivars on the Market.

Vegetative sources: <http://www.nativehabitat.com/iochroma.html>.



Propagation.

Vegetative propagation using greenwood cuttings in late winter. Seed propagation: sow in mid January to flower in early summer (55-64°F).

Market Niche.

Potential holidays for this Product: Mother's Day and Easter-due to the flower color and time of bloom. These make excellent container plants or background plantings in annual flower beds.

Cultural Requirements.

Temperature:

74°F for floral initiation and development, 70°F nights thereafter. It will tolerate cooler temperatures during the summer of 65-68°F.

Light:

the photoperiodic response is day neutral; 2500 foot-candles, full sun to part shade.

Nutrition:

200 ppm constant liquid feed of 20-10-20.

Soil:

Well drained, sandy loam or soil based mixture. Water plentifully in the summer and sparingly in the winter.

PGR's:

None have been used with *lochroma*. However, the recommendations for a close relative, *Cestrum*, are a tank mix of B-Nine and Cycocel, as this combination is proven to be more effective in controlling heights in warm climates (Dole and Wilkins, 1999). Use a rate of 1600 ppm for each PGR; two applications that are 3 to 4 days apart. Apply after the plants have good pot coverage.

Container Size:

Plug trays for seedlings or rooted cuttings, 6-8" pots for final production.

Fungicides/Insecticides:

White flies and spider mites are the two main insect pests.

Production schedule.

Estimated number of weeks from planting to flowering:

Seed (germ. at 64F)	2-3 wks	Cuttings (rooting)	2 wks
PGR's/pinching	2-3 wks	PGR's/pinching	2-3 wks
Growing on	<u>10-14 wks</u>	Growing on	<u>8-12 wks</u>
TOTAL	14-20 wks	TOTAL	12-17 wks

Literature Cited.

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