

# New Crop Report



<http://www.calflora.net/bloomingplants/whitesnapdragon.html>

Scientific Name: *Antirrhinum coulterianum*

Synonym: *Sairocarpus coulterianus*

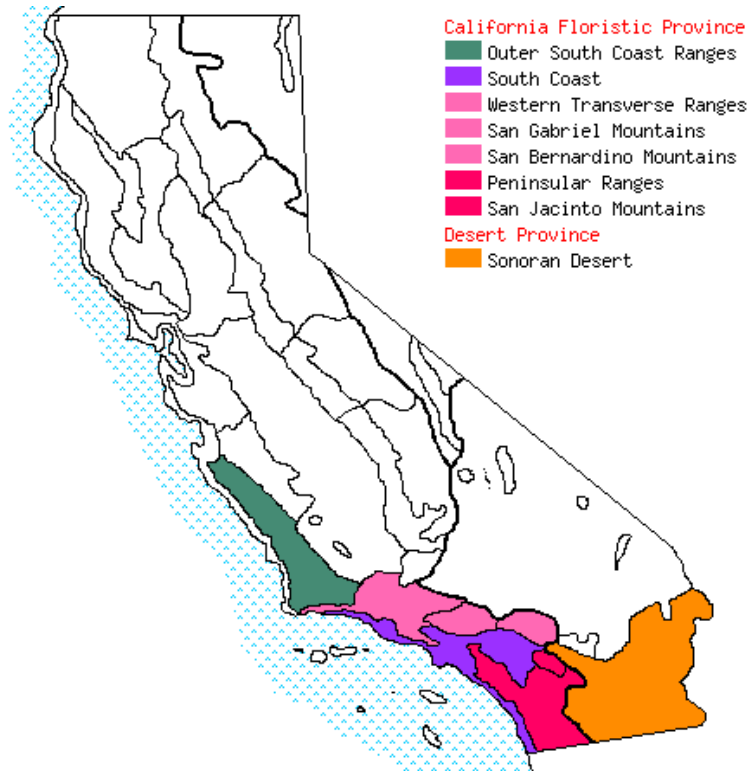
Common Names: white snapdragon, coulter's snapdragon

Family: Scrophulariaceae (Figwort family)

# Geographic Distribution

- North America
- U.S.A., Mexico
- California/Outer South Coast Ranges, Southwestern California (except Channel Islands), north west edge Sonoran Desert/ northern Baja peninsula (Mexico)
- Latitude Range: approximately 31 N to 36 N
- Altitude: 0-1700 m
- General Climatic Conditions: full sun to partial shade, highly drought tolerant, zone 11 (average minimum temperature above 40 degrees F) to zone 8a (average minimum temperature 10-15 degrees F)

# Geographic distribution



[http://ucjeps.berkeley.edu/cgi-bin/get\\_county\\_map.pl?taxon\\_id=13573&hcode=80c0025401](http://ucjeps.berkeley.edu/cgi-bin/get_county_map.pl?taxon_id=13573&hcode=80c0025401)

# Native Habitat

- Well drained, loose soil in hot, dry, and open air conditions
- Grows among shrubs generally on burns, slopes, and in hilly areas



# Taxonomic Description

- Annual, glabrous below inflorescence, hairy in inflorescence
- Stem: erect but weak (4-6' tall), often clings to other plants or debris
- Leaves: basal rosette often present (unique in genus)
- Inflorescence: raceme, terminal; pedicels 1–5 mm, lowest generally subtended by twining branchlets
- Flower: calyx lobes equal; corolla 9–12 mm, white to lavender; lower stamens generally exserted
- Flowering time: April to July
- Fruit: upper chamber indehiscent
- Among first growth following fire
- Chromosomes:  $n=15$

## Varieties/Cultivars on the Market

- There are a number of *Antirrhinum* cultivars with similar and more desirable traits (overall hardiness and flower color) as those of *Antirrhinum coulterianum* available on the market.

## Propagation methods

- Seed propagated; Plugs to transplant: 6-7 weeks
- Seed germination is stimulated by the presence of charred wood or aqueous extracts of it
- Germination temperatures/duration: 70-75 degrees F for 7-10 days

## Product Specifications

- The ideal phenotype would be a plant with healthy, full basal rosette leaves, a strong, thick stem, and full raceme of white flowers

# Market Niche

- Target Sales Date: April to July
- Holiday potential: No
- Programmability: This plant could most likely be forced year round
- Competition: Other cultivars of snapdragons
- Background/ “story”: California native plant, it’s trait as a fire follower may be a good story
- Major crop: No. There are many other cultivars of Snapdragons with much more desirable traits (overall hardiness, flower color)
- Initial limitations/problems: Desire for dry, hot situation may make it difficult to grow with other crops
- Already identifiable to growers and consumers: Yes, in California.
- How soon could this product be available: Immediately



# Anticipated Cultural Requirements

- Winter Hardiness: zone 11 (average minimum temperature above 40 degrees F) to zone 8a (average minimum temperature 10-15 degrees F)
- Heat/Drought Tolerant: Both
- Temperature (day/night): Day temperatures between 60-70 degrees F may influence flower initiation, but not development. Plants should be grown at night temperatures of 60-65 degrees F. Positive DIF maybe effective for cut flower production, 0 or negative DIF may be effective for bedding and potted plant production.
- Light Quantity, quality, duration: Facultative long day plant (18 hour day desirable); development and floral induction delayed if plants are grown under low light. *Stage 1-* light levels of 450-1500 fc, *Stage 3 and beyond-* light levels of 1000-2500 fc



# Anticipated Cultural Requirements

- Nutrition: Nutrient application in young plants should not be neglected if quality plants with repeated flowering are desired. Nitrogen levels important at early ages for development of strong, thick stems. Snapdragons cultivars generally have relatively low nutrient requirements; 100-150 ppm N to harvest should suffice. Boron deficiency may cause problems, may become deficient if Calcium levels are too high.
- Soil: A well drained, fairly loose, aerated soil is desirable. Soil pH: 6.1 – 7.8 (6.1-6.5 optimal)
- PGRs: A variety of PGRs are known to be effective on snapdragon cultivars, including A-Rest, Bonzi, B-Nine, Cycocel, and Sumagic; i.e. A-Rest sprays used after transplanting (15-20 ppm) and before finishing (15-26 ppm). 100 ppm GA3 may help increase stem length
- Container size : plugs – 288, finishing – 4” or 6” pots, spacing – 24” to 36”
- Disease: root degeneration and wilting related to poor aeration, excess watering, and Pythium. Botrytis, powdery mildew, downy mildew, and Pythium are some of the more common diseases
- Insects: aphids, fungus gnats, thrips, and red spider mites are most common in snapdragon cultivars
- Other: Plants should not be over watered. Temperature is important in the plant's ability to absorb water; cooler temperatures inhibit absorbance. Plants may respond to 750-1500 ppm CO<sub>2</sub>

# Production Schedule

- Estimated number of days from planting to flower bud initiation: 60-70 days (9-10 weeks)
- Estimated number of days for flower development: 80-95 days (11-14 weeks)
- Estimated number of weeks from seed to finish: in the north, number of days from seed to finish ranges from 110 day in the summer to 160 in the early winter, with an average finish time of 135 days (approx. 20 weeks)
- Estimated type, quantity of special treatment applications: 2 A-Rest sprays, one used after transplanting (15-20 ppm) and one before finishing (15-26 ppm).
- Target sales date: April to July

# Needs Assessment for Genetic Improvement?

