

EUPHORBIA FULGENS

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Euphorbia fulgens is a beautiful shrub growing naturally to 6 feet or more. It is characterized by long-petioled lanceolate leaves and slender arching branches. Flowers are borne profusely on the terminal portions of the branches, arising from the leaf axils at the nodes (Figure 1). They are on short stalks, usually with two to four flowers (as they are commonly called) per stalk. The name fulgens refers to the splendor and brilliancy of the five-lobed, orange-scarlet involucre which is petal-like and surrounds the inconspicuous true flowers (Paxton, 1938). Cyathium is the collective term used for each entire flower-like structure (Figure 2).



Figure 1

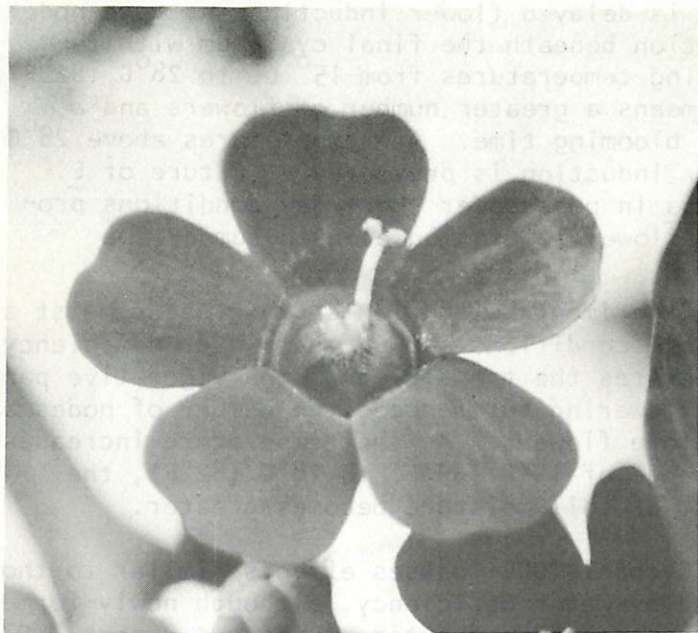


Figure 2

Euphorbia fulgens is a winter bloomer and truly a striking houseplant when in flower. The foliage and slender curved branches make it attractive throughout the year. The plants prefer warm day temperatures (about 70 to 80°F) and full sun (Graf, 1974). The soil mixture should be one of equal parts loam and peat, with a liberal addition of sand (greater than 1/3 the mix). Vermiculite or perlite could probably be used as a partial substitute for sand to provide the necessary aeration. Slightly acid soil pH 6.5 is best. For nutrition information see the Cooperative Extension Service bulletin 77-21 "Producing Poinsettias Commercially" and follow the recommendations for poinsettias. Soil should be drenched thoroughly, then allowed to become only moderately dry between waterings.

Euphorbia fulgens is a short day plant with a critical day length of 11 to 12 hours depending on the temperature. Under short day conditions,

there is delayed flower induction and more node formation beneath the final cyathium with increasing temperatures from 15° up to 28°C (82°F). This means a greater number of flowers and a later blooming time. At temperatures above 28°C flower induction is prevented. Culture of E. fulgens in pots under short day conditions promotes flower initiation even in summertime.

Experiments with plants grown under moist and dry soil conditions showed that water deficiency accelerates the transition of the vegetative parts into flowering but reduces the number of nodes and therefore flowers. As the temperature increases in the range of 15°C (59°F) to 28°C (82°F), the effect of soil moisture becomes greater.

Cycocel (CCC) causes effects similar to those caused by water deficiency, although newly-formed internodes become shorter (Albert & Runger, 1975). It produces a more compact and earlier flowering plant with a shorter inflorescence length.

While in flower, if the plants are kept cooler, their flowering period will be extended. After flowering they should be kept drier until spring (Bailey, 1928). Cut sprays last very well. If these sprays are the main reason for growing the plant, it is best to grow new cuttings each year. Plants are propagated from cuttings taken any time from June, when the old plants have started to grow, until early August. They can be stuck in sand and kept in a warm frame or under mist until rooted. They should then be kept growing with heat, any transfers being made with as little root disturbance as possible. Contemporary propagating units now available (such as Jiffy 7's or Kys Cubes) could also be used under mist and would reduce root damage during transplanting.

For a cut flower crop rooted cuttings should be planted directly in the bench. Earlier propagations are pinched once but those benched in



Figure 3

August should be planted 4 x 6 inches and not pinched. If the crop has been started early enough to have sufficient growth for beginning short-day treatment September 1, it could be cut by October 30 in a 65°F house. A planting with short-day treatment begun September 15 should bloom for Thanksgiving. October 1 shading should assure a Christmas crop. Left on their own the plants will bloom predominantly in January. (Anonymous, 1975).

If one wishes to grow some as house plants for Christmas, cuttings might be taken before July 1 so that several pinches can be applied to promote branching while reducing height. Three cuttings might be used per six inch pot. Since Cycocel is effective in reducing height, it could be used to produce a more compact plant. No recommendations have been noted for spray applications, therefore different rates and times (such as 1:80 at 2 week intervals, one week following first pinch for 2 or 3 sprays) should be tried experimentally and careful records maintained. Responses similar to poinsettias should be expected.

The plants are very sensitive to cold or sudden changes in temperature (Bailey, 1928). Insect pests are not usually a problem.

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3. Bailey, L.H. 1928. The Standard Cyclopaedia of Horticulture 1:1168
4. Graf, A.B. 1974. Exotica, Series 3, 9th Edition
5. Paxton, J. 1938. Paxton's Magazine of Botany 4:31-32