

(1) check (attapulgit alone); (2) parathion, 5 pounds active, (3) parathion 10 pounds active and (4) parathion 20 pounds active formulation per acre applied in the furrow before planting. The parathion was applied as a 15 percent material in a granular form made up to 30/40 mesh "AA" RVM attapulgit. The granular formulation costs no more than a similar strength wettable powder and can be applied in the furrow with a fertilizer distributor. These materials were evenly distributed in the furrow, the corms planted and covered with soil within the half hour. It is important that the parathion be covered soon after application because of the disappearance of parathion residues apparently due to direct volatilization (Ginsberg 2). Once, the material was covered loss of parathion is slow.

Carlo, et al (1) showed that parathion was less stable than toxaphene with a rapid disappearance during the first two weeks after application. Increasing pH accelerated the decomposition of parathion. They state: "Parathion was not lost from the soil by volatilization to any appreciable extent; rather, the insecticide disappeared slowly, presumably by chemical degradation." The insecticide could be detected in the soil at the end of eight weeks."

The 5 and 10 pound rates improved percentage recovery and total number of corms harvested but the 20 pound rate was no better than the control (Table 3). Flower production was erratic due to size of corms used in the treatment, so no flower data were recorded.

Table 3. Parathion as a Soil Treatment and Its Effect on Growth of Ficardy corms* Spring 1956

Treatment	Jumbo	1	2	No. of Corms	Wt. of corms in grams	Percent Recovery of corms
Check	13	75	59	147	5021	44.8
Parathion 5 lbs. active	25	110	56	191	7020	59.0
Parathion 10 lbs. active	17	130	54	201	6970	62.0
Parathion 20 lbs. active	9	92	53	154	5231	47.5
LSD 5%				55	1731	

*81 No. 5 and 6 corms planted per plot or 324 per treatment.

CONCLUSION

Parathion corm treatment does have a favorable effect upon the growth and development of the gladiolus. The 5 and 10 pound active treatment in the soil were the best rates tested. Growers could use this soil treatment in the row where they have not used any other soil treatment. Caution must be used if the soil is alkaline or a heavy application of lime has been made.

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THE GENUS SOLANDRA IN FLORIDA

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The genus *Solandra*, which is found in the American tropics, has several species valuable

as ornamental plants. A few species of this genus are to be found growing in Florida. There are several references that will assist in their identification (1, 2, 3, 4, 5, 6, 7).

The *solandra* commonly seen in Florida gardens has been referred to under several

botanical and common names, which raises the question of what species do we have? Botanical names most often assigned it are *Solandra grandiflora* Sw. and *S. guttata* D. Don ex Lind. The available evidence indicates that the solandra commonly seen in Florida is properly identified as *S. longiflora* Tussac, the bugle chalice vine (Fig. 1).



Fig. 1. Flower and foliage of bugle chalice vine, *Solandra longiflora*.

Illustrations of one species of solandra grown in California, Cuba and Puerto Rico show that it is similar to the one grown in Florida (3, 4, 5, 7). The plant common here (*S. longiflora*) differs from that of *S. grandiflora* Sw. figured in Bailey (1) in that the flower is longer, the lobes of the corolla are wavy and toothed and there is a distinctive constriction near the lip of the cup, while the corolla of *S. grandiflora* is widest at this point. The calyx of *S. grandiflora* covers the entire lower part of the tube while that of the species commonly grown here covers only one-half of the lower portion of the tube (Fig. 1). Both species are described as white flowered; however, buds and newly opened flowers of *S. longiflora* are usually creamy-white but gradually darken to cream-yellow as they mature and the throat is marked by 10 distinct purple lines.

Cup of gold, *Solandra guttata* D. Don. ex Lind., is grown to some extent in California, but there are relatively few plants of this species growing in Florida. There are several characteristics which distinguish it from the

bugle chalice vine. The buds and newly opened flowers are cream-yellow and darken to a golden color as they mature. The chalice is shaped like a wide, relatively shallow, goblet, is from 6 to 8 inches in width and has 5 purple lines in the throat (Fig. 2). The leaves

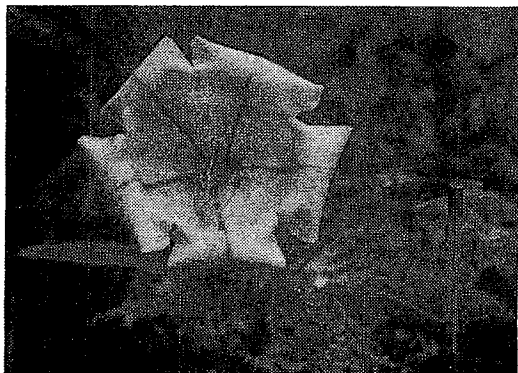


Fig. 2. Flower and foliage of cup of gold, *Solandra guttata*.

are smooth on top and pubescent underneath, while those of *S. longiflora* Tussac are entirely smooth.

In a letter to Mr. Erdman West (January 14, 1955), Mr. G. M. H. Lawrence, Director of the Bailey Hortorium, Cornell University, Ithaca, New York, stated "According to the material in our herbarium, there are three species now cultivated in Florida. They are *S. longiflora* Tussac, *S. Hartwegii* N. E. Brown, and (at the Fairchild Tropical Gardens only, according to our records) *S. brevicalyx* Standley." There is some confusion as to what solandra is meant by *S. Hartwegii* as it has apparently been confused with some of the other species.

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