

# Forcing Lilies as Pot Plants

by K.L. Goldsberry

Several hybrid lilies appear to have some promise as pot plants and could be forced in a limited time by the grower. One of the class exercises in pot plant production at Colorado State University dealt with the forcing of 10 varieties of these lilies.

The bulbs used in the exercise were obtained from the Oregon Bulb Farms, Gresham, Oregon. They had been harvested in the fall of 1964, given a cold treatment (33-37F) through the winter, and shipped ready for forcing. The following bulbs were potted on March 24, 1965.

Bright Star	8-9''	Harmony	7-8''
Cinnabar	6-7''	Joan Evans	7-8''
Enchantment	6-7''	Pink Glory	9-10''
Fireflame	8-9''	Sunspot	7-8''
Formosanum Pricei	7-8''	Tobasco	6-7''

Six bulbs of each variety, one per pot, were placed directly on top of a hand full of pea gravel in 6'' pots and covered with soil (deep planting). The remaining 6 bulbs of the same variety were placed in pots containing pea gravel and soil, allowing the top of the bulb to protrude above the soil (shallow planting). Three pots of the shallow and deep treatments were grown at 60F night temperature. The remaining three pots were grown at 50F.

The plants were observed at definite stages of growth, which included shoots 2'' high, buds visible, and first flower opening. The final evaluation was based on length of useful life and potential as a pot plant.

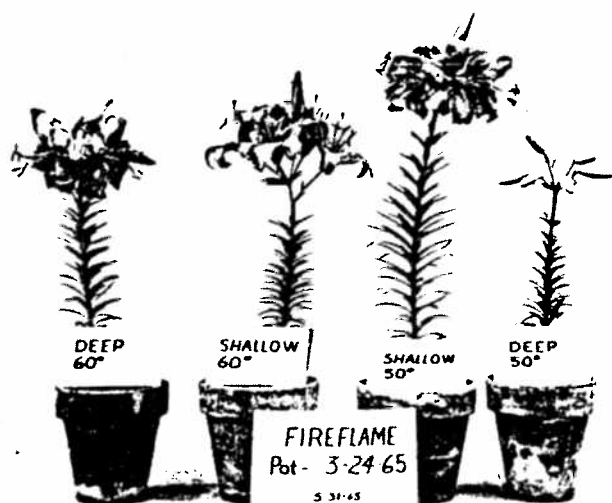


Fig. 1. The response of Fireflame lily to planting depth and growing temperatures.

Table 1. Effect of temperature and depth of planting on average number of days to visible bud stage on 10 varieties of lilies.

Name	50°		60°	
	Shallow	Deep	Shallow	Deep
Bright Star	40	38	40	42
Cinnabar	31	33	29	31
Enchantment	28	26	26	22
Fireflame	39	46	38	36
Formosanum Pricei	31	33	58	51
Harmony	34	39	30	34
Joan Evans	28	30	26	27
Pink Glory	33	49	41	40
Sunspot	42	48	34	37
Tabasco	27	31	32	31

Table 2. Effect of temperature and planting depth on number of days from planting until first open flower.

Name	50°		60°	
	Shallow	Deep	Shallow	Deep
Bright Star	76	78	72	73
Cinnabar	61	62	54	56
Enchantment	52	57	53	55
Fireflame	63	64	59	60
Formosanum Pricei	98	98	78	78
Harmony	56	59	52	54
Joan Evans	63	65	54	57
Pink Glory	75	78	69	73
Sunspot	61	63	56	62
Tobasco	59	62	55	56

Table 3. Characteristics of 10 hybrid lilies grown as pot plants.

Name	Ave. Days of ht. useful (in.)	Color	Ave. no. flrs/stem	Rating*	
Bright Star	27	6.5	White	4.7	NG
Cinnabar	15	6.8	Dark Red	4.5	F
Enchantment	18	20.5	Nasturtium-red	8.2	G
Fireflame	12	11.0	Crimson red	7.0	G
Formosanum Pricei	16	13.5	White-orange	6.3	G
Harmony	17	13.3	Orange	14.0	E
Joan Evans	17	7.8	Golden yellow	14.2	F
Pink Glory	20	12.3	Variable pink	8.5	NG
Sunspot	14	8.0	Blood red	15.0	F
Tobasco	20	10.3	Dark red	14.7	G

\*NG--no good; E--excellent; G--good; F--fair.

## Results

The depth of planting and growing temperatures had some effect on emergence and timing. Table 1 shows the average number of days by variety and treatment required to reach the visible bud stage.

The first flower opening was affected more by the growing temperature than by the depth of planting. Flowering time varied from 52 to 98 days (Table 2) and averaged 64 days for the 10 varieties under all treatments. Fireflame (Fig. 1) showed the greatest response to both depth of planting and growing temperatures.

Bright Star and Pink Glory were excessively tall and were rated as poor pot plants. The other varieties flowered at a reasonable height (Table 3).

All of the plants remained in the greenhouse for observations on flower life. Even under these conditions, most of the flowers lasted one week. Table 3 shows the average days of useful life for each variety.

All of the varieties except Formosanum Pricei that could be used for pot plants are shown in Figure 2. The variety Joan Evans tended to produce two stems per plant, thus filling the pot but not necessarily making a symmetrical plant.

Most of the varieties had short leaf characteristics; no scorch or tip burning occurred. The variety Formosanum Pricei had long, thin leaves and took an average of 88 days to bloom. This variety, with a long white trumpet, could easily be used for forcing during Easter.

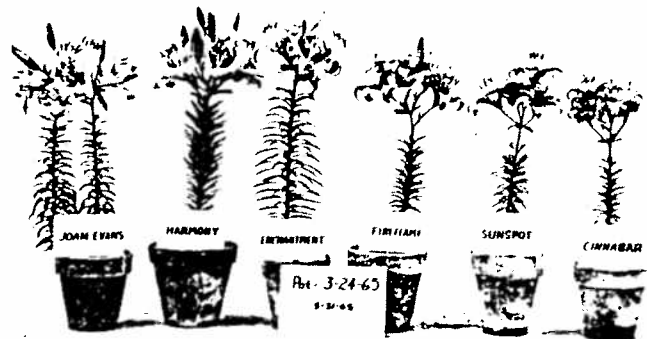


Fig. 2. Six hybrid lily varieties suitable for pot plant production.

All of the lilies used in this evaluation, except Pink Glory and Bright Star can be used for pot plants. Some of the varieties had short undesirable foliage, but through selecting and breeding the foliage and perhaps the plant could be made more desirable.

A marketing and sales program could be launched by pot plant growers pointing out how the plant could be placed in the garden for additional sentiment and beauty each year.

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