BULB FORCING

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To produce quality tulips, hyacinths and other bulbs, growers must pay attention to fine details in their culture.

When bulbs are moved from the storage area into the greenhouse, three details in their culture should be followed to insure a first-quality plant.

First, plants should be watered in the morning, whenever possible. This is to allow foliage to dry. If two waterings are necessary, make the second application in early afternoon. This is to minimize disease promoting conditions on leaves and flowers. Second, forcing temperatures are most important. Most bulbs can be forced between 55-65°F at night with the day temperature not exceeding 70°F.

The following chart shows average forcing times. It assumes that the plants are in normal condition for forcing, i.e., that they are well rooted and the tops have begun growth but are not too tall. It also assumes that frozen pots will be warmed slowly; that they will be double watered when brought into the greenhouse; and that some light shade will be provided for a couple of days if the sun shines brightly.

Flowering Date	Tulips 55°	60°	65°	Daf. 55°	60°	Hyacinths 55°	60°	65°	Crocus 55°	60°
	Days from start of forcing to flower									
Feb. 5	40	32	24	32	27	24	20	16	15	12
15	38	30	23	27	23	21	17	14	12	10
25	35	28	22	23	20	18	14	12	10	8
Mar. 5	33	27	21	10	17	15	12	10	8	7
15	31	26	21	17	15	12	10	8	5	5
25	29	25	21	15	13	10	9	7		
Apr. 5	27	24	21	13	12	8	7	6		
15	25	22	20	12	11	7	6	5		

Third, the causes of disease should be minimized. Temperatures and ventilation should be watched closely. A protective fungicide should be applied at 7 to 10 day intervals to prevent the spread of Botrytis, a most serious problem in bulbs. Preventive fungicidal dusts or sprays should be used when bulbs are first brought into the greenhouse. Those which show disease signs should be separated from the crop.

Fungicides available are:

Termil--smoke
Daconyl 2787 75% WP--1 1/2 lbs./100 gal.
1 1/2 tbsp./gal.
Captan 50% WP--2 lbs./100 gal.
2 tbsp./gal.
Ferbam 65 or 76% WP--2 lbs./100 gal.
2 tbsp./gal.
Zineb 65% WP--1 lb./100 gal.
1 tbsp./gal.
Benomyl--8 oz./100 gal.
2 tsp./gal.

While keeping these three factors in mind, losses during the forcing period can be minimized and quality plants produced.