

planted, and plats planted with bulbs receiving similarly timed cool storage for 30 days (Treatments 8-12) averaged 6.3 bulbs, making the bulb yield of the cool plats 66 percent greater than that of the warm plats.

### CONCLUSIONS

1. Neither the time of beginning nor the duration of a warm storage period has any appreciable effect on hastening bulb sprouting or bringing about early emergence of the plants and early flowering.

2. Cool storage of the bulbs at 40° F., if properly timed and of sufficient duration, hastens bulb sprouting and results in early emergence of the plants and early flowering.

3. The period following August 15 is particularly critical. The rest period of the bulbs is nearly ended, new root formation frequently taking place during late August and early September, and thereafter they are increasingly more sensitive to cool storage exposures. The later cool storage is applied or the longer the cool storage period is extended into the fall (within the period covered by these tests), the greater will be the effect on the bulbs and the larger the proportion of early flowers.

4. Because of the danger of early sprouting, it seems advisable to place the bulbs in cool storage on August 15, or very shortly thereafter, and to remove them from cool storage and plant them not later than October 1.

5. Cool storage treatments which stimulate early emergence of the plants and early flowering have a detrimental effect on the bulbs. Degree and manifestation of injury depend on the timing and duration of the cold period. Cool storage generally results in smaller, less thrifty plants which produce correspondingly less flowers. Particularly if prolonged, cool storage may prevent or delay bulb sprouting, or may cause a non-flowering or "blind" condition of the stalks which develop.

6. The use to be made of cool storage will be influenced by the market available to the grower as well as by his storage facilities. It seems indicated that cool storage must be used by most growers if profits are to be realized. Only the flowering-sized bulbs should be given cool storage, and it seems inadvisable to cool storage any given lot of bulbs two years in succession. A sufficient number of young bulbs will ordinarily make blooming size each year so that the cool storage treatment can be made an annual operation for part of the bulb stock.