

the laboratory building was again used for warm storage, and the local municipal plant again provided controlled cool storage. As previously, all bulbs were planted in beds with similar depth of planting and spacing.

RESULTS

Time of Plant Emergence.—Figure 3 shows the various treatments as well as their effect on time of plant emergence.

In each case emergence of the plants is shown when approximately half the plants appeared above ground, a time when the differences were quite apparent. In no case did all plants appear simultaneously, but rather, their emergence extended over a period of two weeks or more. In general, plants in the "warm" plats came up more nearly at the same time than those in "cool" plats. The results given in Figure 3 show that there was about a month's difference in time of emergence between the bulbs receiving warm and cool storage. Emergence in the warm plats was largely confined to the month of November and the first part of December. In the cool plats emergence began early in October and continued into December.

It will be noted that cool storage for as short a time as 15 days failed to bring about early emergence of the plants regardless of whether applied early or late in the summer. Cool storage for 30 days caused early plant emergence about as well as storage for a longer period. However, results obtained with Treatments 20 to 22 indicate that bulbs placed in cool storage too early in the rest period (July 6 in these instances) require about double this exposure to bring about a similar stimulating effect.

Growth of Plants.—It will be recalled that when the previous season's plants were measured on January 11, those from bulbs given cool storage were considerably taller than the ones from bulbs held at outdoor temperatures. This showed the advanced condition at mid-season of plants from bulbs given cool storage, but gave no indication of comparative size of all groups when mature. This year's measurements were made on May 5 when blossoming was at its peak, and therefore serve better to show comparisons of final growth. These comparisons are shown in respect to average height of the plants as well as to percentage of tall plants (Fig. 4).

It will be seen that plants from bulbs receiving only warm storage were regularly taller at maturity than those from bulbs given cool storage (also see Fig. 1), the average height of plants