STUDIES ON THE PHYSIOLOGY OF BOLTING AND FLOWERING IN RAPANUS SATIVUS L. — V

— Changes of germination percentage and growth behavior on the germinated and non-germinated seeds during chilling treatment —

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Abstract

Seeds of *Raphanus sativus* L. cultivars 'Comet' and '40 days' were stored at 25 °C and used for experiments every month.

The seeds stored were treated at 5 °C and 25 °C to make clear relationship between the germination rhythm and the growth reaction of chilling seeds.

The results were summarized as follows;

1. The germination rhythm of 'Comet' seed showed similar fluctuation in the annual rhythm at 5 °C and 25 °C and there were no correlations between the seed germination rhythm and the annual rhythm of days to anthesis.

2. The germination rhythm of '40 days' showed reciprocal fluctuation in annual rhythm at 5 °C and 25 °C and the similar rhythm were observed between the annual rhythm of days to anthesis and germination rhythm at 25 °C, but those of 5 °C were contrary to each other.

3. The length of hypocotyl of seeds germinated during chilling were the shortest and followed by non-germinated seeds and those of non-chilled seeds the longest.

4. The length of seed stalk of seeds germinated during chilling were the longest and those of non-chilled seeds the shortest.