

Germination Rate and Growth Responses of Turf grass to different temperatures and transplanting times

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Objectives

- To investigate the proper temperature of germination to turf-grass
- To study on relationship between day length and germination
- To determine the transplanting times of turf-grass

Materials and Methods

1. Treatments of temperatures for germination
 - a) 25, 30, and 35°C based on 20°C of night temperature-day length; 10/14 hrs
 - b) 30°C based on 15°C of night temperature-day length; 14/10 hrs
 - C) Observing item ; Germination rate

2. Transplanting times
 - a) 50, 80, and 120 days after sowing on nursery bed.
 - b) Observing date : September 20
 - c) Observing items; number of tillering, length of tillering, and number of node

Materials and Methods (Cont.)

3. Experimental Design : Randomized completed design with 3 replication

Results and Discussions

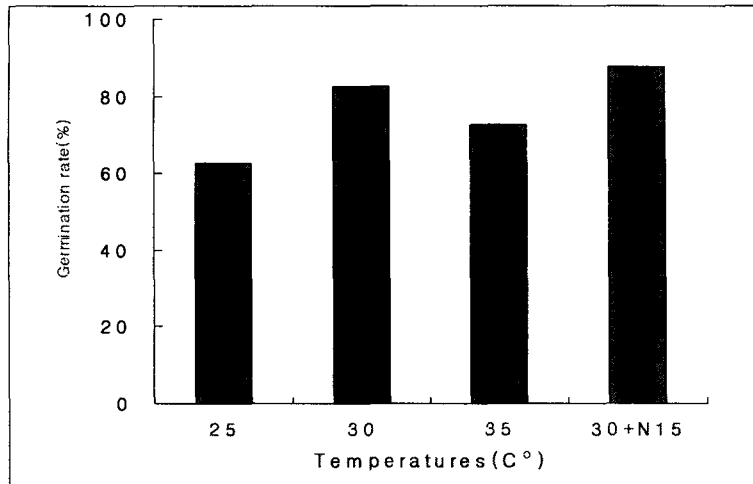


Fig. 1. Effects of germination rate to different temperatures

Table 1. Effects of germination components to different temperatures

Temperatures	Days of 50% germination	Days of 80% germination	Initial days of germination	Final days of germination
25	6	10	5	16
30	8	10	5	14
35	7	10	5	11
30+N15	7	10	5	11

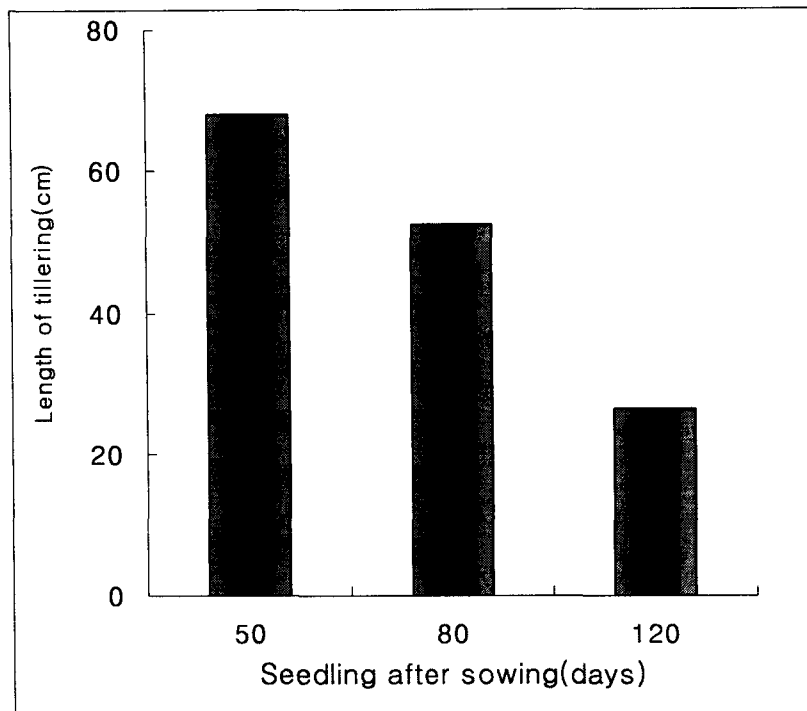


Fig. 2. Effects on length of tillering with different seedling ages

Table 2. Effects of growing components with different seedling ages

Transplanting date	Number of tillering	Number of node	Internode length(cm)
May, 10	5.2	22.7	3.0
July, 10	3	21.0	2.5
August, 10	2	12.0	2.2

Summary

This experiment was carried out the investigation of proper temperature of germination and growth responses of turf grass to different seedling ages. The results were as follows;

1. It was indicated that the proper temperature of germination was 30°C of day and 15°C of night, and day length was 14/10 hrs.
2. It was observed that 50 days of seedling was excellent with growth components such as number of tiller, length of tillering, number of node and internode length.