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Effect of picking time and storage conditions on the germination and seedling growth of chilli (*Capsicum annuum*)

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Crop production depends on usage of quality seeds for planting. In agricultural production, seeds are required to be stored for a period of time. Environmental factors during storage influence seed deterioration and it leads to loss of viability and vigour of seeds. The present study was aimed at investigating the effect of picking time and storage conditions on germination and seedling growth of chilli. The experiment was conducted in a complete randomized design with three replications. The chilli pods were picked once in 7 days and stored for 6 months. The first factor was picking time and the second factor was storage conditions viz; ambient and cold storage condition. The chilli variety PC 1 was used in this study. The present study revealed that there was no interaction between storage conditions and picking time of chilli pods on germination and growth of seedling. Germination percentage was significantly different ($P<0.05$) between seeds stored in cold and at ambient temperatures. At the 12th day after sowing, the mean % germination and seedling height were 82.66 % and 3.93 cm respectively, in cold storage, while in ambient temperatures the values were 73.33 % and 3.66 cm. Among the picking periods, there was a significant difference ($P <0.01$) in % germination with seeds obtained from 2nd picking having 84 % and those of the 3rd picking having 79.5 %. The seeds from the 2nd picking produced taller seedlings (4.1 cm) followed by the 3rd picking (3.95 cm). The fresh weight of seedlings was significantly ($P<0.05$) different among the pickings and no significant difference was observed between seeds from 2nd (1.15g) and 3rd (1.03g) pickings. However, there was no remarkable variation between seedlings raised from different storage periods. The dry weight of seedling was not significantly different in seeds stored in different storages. The seeds obtained from the 2nd picking and stored in cold conditions would be suitable for successful chilli crop production in the eastern region.

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