

Seed Priming Winter Wheat (*Triticum aestivum* L.) for Germination and Emergence

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Abstract : In order to evaluate the effect of the different sources of salt on germination and early growth of five wheat cultivars (Katea, Bezostaja, Koksall-2000, Golia, Pehlivan) an experiment was conducted at the seed laboratory of the Uludag University, Agricultural Faculty, Department of Field Crops in Bursa/Turkey. Seeds were applied in five different resources media (KCl % 2, KCl %4, KNO₃ %0,5, KH₂PO₄ %0,5, PEG %10) and distilled water as the control). The seed was fully immersed in priming media at a temperature of 24°C for durations of 12 and 24hours. Six different agronomic characters (seed germination, stem length, stem weight, radicle length, fresh weight, dry weight) were measured in 7th days and 14th days. Maximum seed germination percentage of seven days are Pehlivan was observed when the seeds were applied by KH₂PO₄ and Katea by distilled water as a control. The most stem length and stem weight were obtained for seeds were applied by KH₂PO₄ %0,5 with Katea and Bezostja immersed in priming media at 12h intervals beginning 7d after planting. Seeds were applied KH₂PO₄ %0,5 media produced maximum radicle length by Koksall and dry weight by Katea. The freshest weight obtains in Katea by KNO₃ %0,5 immersed in priming media at 24h. The most germination percent, dry weight, stem length of fourteen days was observed in Katea which subjected to KH₂PO₄ %0,5 solution. The most radicle length was observed Katea and Koksall in media of KH₂PO₄ %0,5. The most stem length was obtained for seeds were applied by KH₂PO₄ %0,5 and KNO₃ with Katea and Bezostaja. When the applied chemicals and all days examined KH₂PO₄ %0,5 treatment in fourteen days and immersed for the duration of 24 hours had better effects than other medias, seven days treatments and 12hours immersed. As a result of this research, the best response of media for the wheat germination can be said that the KH₂PO₄ %0,5 immersed in priming media at 24h intervals beginning 14 days after planting.

Keywords : germination, priming, seedling growth, wheat

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