



RESEARCH PAPER

Influence of desiccants on seed quality attributes of wheat crop under hermetic storage

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Abstract : An investigation was undertaken with main objectives to know the effect of desiccants on seed quality parameters of crop seeds during storage and to assess the benefit cost ratio of storage method (economics) in wheat with initial seed moisture content of 12.3 %, was carried out at Department of Seed Science and Technology, College of Agriculture, UAS, Dharwad. Quantity of desiccants stored per kilogram of seed in wheat seeds is 0.37 kg for zeolite beads, one kg for silica gel, calcium carbonate and control without desiccant in airtight container. The experiment was laid out in Completely Randomized Design with four treatments and five replications. Seed stored with zeolite beads recorded the highest germination (88.8 %) which was on par with silica gel (87.2 %) at the end of storage period. Lower seed moisture and hundred seed weight was observed in the seeds stored with silica gel at the end of storage period. Higher shoot length, root length, seedling vigour-I and seedling dry weight was observed in seeds stored with zeolite beads which was on par with Silica gel at the end of storage period. compared to control. Therefore, it can be concluded that the zeolite beads can safely be used for seed drying without impairment in seed quality.

Key Words : Wheat seeds, Drying, Desiccants, Moisture, Hermetic container

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