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Efficacy of priming treatment on germination, development and enzyme activity of *Allium cepa* L. and *Brassica oleracea* var capitata

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The aim of this study was evaluation of the effect of aging germination and activity of antioxidant enzymes in seeds of *Allium cepa* L. and *Brassica oleracea* var capitata with seed priming treatment. In the present paper the different seaweed extract from *Ulva lactuca* L. (G1), *U. reticulata* forsskal (G2), *Padina pavonica* L. (B3), *Sargassum johnstonii* Setchell & Gardner (B4), *Kappaphycus alvarezii* (R5) and *Gracillaria corticata* J. Ag. (R6) was applied as seed priming and performed prior to accelerated ageing treatment with the investigation of activities of catalase (CAT) and peroxidase (POD) during accelerated aging. Our result indicates that to enhance germination characteristics in aged seeds with priming treatment also reveals positive effect of seed priming on the germination percentage, vigour index, seedling length and antioxidant activity of enzyme. The highest germination percentage, vigour index, seedling length and enzyme activity were achieved in given priming treatment with aging (12 day of aging) as compared to control condition (0 day of aging).



Figure-1: Effect of seaweed extract priming treatment on seeds of *Allium cepa* L. and *Brassica oleracea* var capitata

Biography

Rinku V Patel has her expertise in Evaluation of Seaweed Biofertilizer and its Application for Sustainable Development. She has passion for research activity based on improving the soil health and organic farming. Her research work model is based on production of seaweed liquid fertilizer and its application to evaluate its effect on maximum crop yield with respect to quantitative and qualitative assessment. Organic farming is the way forward to green technology with sustainable development as it is ecofriendly and economical method. She has one year of teaching experience in Agriculture University and two years of research experience in Environmental Science as UGC-JRF.

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