

## **Influence of seed deterioration on biochemical composition in rice**

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**ABSTRACT** : Seed deterioration is an anticipated process, expressed as the abatement in quality, viability and vigor during unfavorable environmental condition. An effort has been made to understand the mechanism of deterioration during seed storage, by subjecting five varieties of rice seeds at the temperature of 45°C along with 80% and 100% relative humidity (RH), respectively, for 3, 7, and 14 days. Biochemical parameters such as soluble protein, albumin, globulin, and albumin-globulin ratio were studied. Prolongation of ageing treatment led to deterioration in protein and its fraction. The study concluded that accelerated ageing is the immediate and efficient technique to predict the storage effect on the seeds. Accelerated ageing showed shrinkage in all the parameters and among different ageing treatment. The most intensive deterioration in seeds was observed after the application of the accelerated aging test for 14 days at 100 % RH.

**Key Words** : Rice (*Oryza sativa*), quality, viability, vigor, seed deterioration, albumin, globulin, accelerated ageing, ageing treatment, relative humidity