BIOLOGY OF ABRUS PRECATORIUS L. SEEDS: INFLUENCE OF H_2SO_4 AND GA_3 ON ENHANCED GERMINATION POTENTIAL AND OPTIMIZATION OF RELATIVE HUMIDITY FOR SAFE STORAGE

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ABSTRACT: Freshly harvested seeds of the medicinally important leguminous vine, Abrus precatorius L., initially exhibit no germination due to the existence of a sort of primary dormancy. Scarification by 18(N) H_2SO_4 for 10 min was found to be most effective giving rise to the germination of 35% of seeds. Enhanced germination was noticed when properly scarified seeds were treated with different concentrations of GA_3 for different durations. Treatment with 250 ppm GA_3 for 12 hrs duration was the most effective one enhancing the germination to \pm 98%. A sort of 'double dormancy', i.e. the involvement of seed coats as well as inhibitory chemicals in imparting dormancy, in seeds of Abrus precatorius L. has been inferred. For the purpose of storage, 60% RH was found to be most suitable one in continuing the viability of seed lots up to 24 weeks.