



RESEARCH PAPER

Impact of post scarification storage period on seed germination and quality in soapnut (*Sapinduas emarginatus*)

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Abstract : Soapnut (*Sapinduas emarginatus*) is one of the most primitive precious useful plants since ancient times. This plant was domesticated due to its multifarious usefulness. The study was conducted in College of Forestry, Sirsi during 2019-20 to know the influence of post scarification storage treatments on seed germination and quality in *Sapinduas emarginatus*. The seeds were collected from in and around Sirsi area. In soap nut, the basic problem is poor seed germination due to hard seed coat. The seeds were treated with concentrated H_2SO_4 for 12min and stored under laboratory condition for six months. At monthly interval, seed samples were drawn and evaluated for post scarification germination. The germination behaviour remarkably influenced due to scarification and without scarification during experimentation. The untreated seeds recorded the maximum germination (68%) compared to scarified seeds (22.85%). Speed of germination was highest in seed without scarification treatment (2.7) compared to scarified seeds. Mean daily germination was highest in without scarified seeds (1.04) and lowest in the scarified seeds (0.32). Peak value was maximum in without scarified seeds (0.50) compared to scarified seeds (0.22). Seedling vigour index was significantly highest in without scarified seeds (1290) compared to scarified seeds (455). In general, scarified seeds with conc. H_2SO_4 for 12 min affected seed germination due high conc. H_2SO_4 because of chemical residues remaining in seed that affects the embryo. As the advancement in storage period the seed coat may lose the integrity so, germination was improved in without scarified seeds.

Key Words : Post scarification, Storage period, Seed germination, Quality in soapnut

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