

***Effect of Scarification on Germination and Seedling Growth of Sacha Inchi
(Plukenetia volubilis L.)***

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ABSTRACT

The seeds of sacha inchi have a hard skin that requires a long time to germinate. This study aims to obtain an effective method of scarification and concentration on germination and seedling growth of sacha inchi. The study used a non-factorial Completely Randomised Design (CRD) with 10 treatments and 3 replications, namely control, sanding the base of the seed, the tip of the seed, the base and tip of the seed, soaking in H_2SO_4 concentrations of 10%, 20%, 30% for 30 minutes, and soaking in KNO_3 concentrations of 0.2%, 0.4%, 0.6% for 24 hours. Data were analysed using variance analysis and followed by orthogonal contrast test at 5% level. The results showed that the scarification treatment of inchi sacha seeds was better than the control in the variables of germination, maximum growth potential, T50, and hypocotyl length. Chemical scarification was significantly better than mechanical on the variables of germination rate, germination, maximum growth potential, T50, radicle length, sprout wet weight, seed height per plant of 30 DAP, 40 DAP, 50 DAP, and number of leaves per plant of 30 DAP, 40 DAP, 50 DAP. Chemical scarification with KNO_3 concentrations of 0.2% and 0.4% was most effective in improving germination and seedling growth establishment of inchi sacha on the variables of germination rate, maximum growth potential, T50, hypocotyl length, seed height per plant of 30 DAP, 40 DAP, 50 DAP, and number of leaves per plant of 30 DAP, 40 DAP, 50 DAP

Keywords: dormancy, scarification, germination, sacha inchi seeds.