

**EFFECTIVENESS OF DORMANCY BREAKING CHEMISTRY
OF SEED VIABILITY AND GROWTH SAPODILLA SEEDS
(*Manilkara zapota* L.)**

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ABSTRACT

Sapodilla plants have very hard seeds, so there are obstacles to their generative propagation. One of the dormancy breaking treatments that can be carried out is by adjusting the concentration and soaking time of chemical solutions, namely H₂SO₄ and KNO₃. The aim of this research is to break the dormancy of sapodilla seeds by soaking them with H₂SO₄ and KNO₃. The research was carried out from April to June 2023 at the Greenhouse of the Faculty of Agriculture, UPN "Veteran" Yogyakarta Condongcatur, Depok, Sleman Regency, Special Region of Yogyakarta. This research method used a Completely Randomized Design (CRD) using one treatment factor, namely soaking sapodilla seeds in 65%, 75%, 85% H₂SO₄ solution for 15 minutes and soaking sapodilla seeds in 3g/100ml, 4gr/100ml 5gr/100ml, 6gr/100ml KNO₃ solution for 45 minutes, with 8 treatments and 3 repetitions. Data were analyzed using Analysis of Variance (ANOVA) at 5% level. The results of the observations showed that the H₂SO₄ and KNO₃ chemical soaking treatment had a significant effect on the germination of sapodilla seeds and on seedling height, number of leaves, stem diameter and root length, root volume and dry weight on the growth of sapodilla seedlings. The type and concentration of the chemical H₂SO₄ 75% and KNO₃ 5g provide better seed viability and growth of sapodilla seedlings.

Keywords : Sapodilla Seeds, Dormancy, Chemical Solutions