

**SEED DORMANCY FRACTURE USING CHEMICAL AND PHYSICAL
TREATMENT OF VIABILITY, VIGOR AND GROWTH OF MUCUNA
(*Mucuna bracteata* D.C.)**

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ABSTRACT

Mucuna bracteata D.C. seeds include those that have a hard shell. This study aims to determine the best treatment to increase the viability, vigor and growth of *Mucuna bracteata* D.C. plant. The experimental design used in the study was a one-factor Complete Randomized Design (RAL) with several chemical and physical treatments: P0 : Control, P1 : KNO₃ concentration 0.5%, P2 : KNO₃ concentration 1%, P3 : KNO₃ concentration 1.5%, P4 : H₂SO₄ concentration 3.5%, P5 : H₂SO₄ concentration 4%, P6 : H₂SO₄ concentration 4.5%, P7 : H₂O with an initial temperature of 60⁰C, P8 : H₂O with an initial temperature of 70⁰C, P9 : H₂O with an initial temperature of 80⁰C. The observation results were analyzed on a variety of fingerprints with a level of 5%. Further tests use Orthogonal Contrast analysis with a confidence level of 5%. The results showed that the KNO₃ treatment with concentrations of 0.5%, 1% and 1.5% gave the best results on maximum growth potential, vigor, germination power, plant height of 15 HST, leaf area, root volume and dry weight of roots.

Keywords : Dormancy, *Mucuna bracteata* D.C., Immersion