Some Physical Properties of Mucuna Bean Seed Relevant to its Cracking

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ABSTRACT The physical properties of Mucuna Bean seed relevant to its cracking were determined. These properties are the seed weight was 7.82, the length, width and thickness of the seed were 26.34mm, 25.02mm and 16.21mm respectively. The sphericity was 0.86 and the surface area and roundness were 1.52cm² and 0.91 respectively. The seed volume was 6.39cm³ and the true density was 1.03/cm³. The bulk density and porosity were 0.214g/cm³ and 0.79. The coefficient of friction was least in plastic, 0.27, while that of steel and wood as structural surfaces were 0.37 and 0.33 respectively. The angle of repose of the seed averaged 20.62, a property essential in design of hopper.

Keywords: physical, properties, mucuna seed, cracking, design