

A Review on farm mechanization and analysis aspect for Dioscorea Hispida.

Abstract

Dioscoreae hispida which entitle Ubi gadong in Malaysia is a poisonous plant where methodical studies have shown that its rhizome contains toxic poison. It can only be consumed after the poison of dioscorin is removed. From the farm mechanization aspect and design review, the condition of soil, the characteristic shape and size of the "Ubi gadong" will be measure. The material selection and acting force are require aspect in the designing, modeling and simulation stage of a handheld harvester which to produce a light and powerful hand tool harvester for application in wildlife forest. The semi automated machine is reviewed and the operation for planting, weeding and harvesting will envelop full operation of Ubi gadong mechanization. Conceptually, the result from modeling will be used to determine the stress, displacement and strain force during design and modification process. During the fabrication stage, welding, grinding and use of workshop machine may be required.

Keyword: Ubi gadong; Mechanization; Harvesting aid; Weeding and plant protection.