ANALYSIS RELATIONSHIP PHYSICAL AND MECHANICAL PROPERTIES ACTIVITY IN SOIL TILLAGE AT PT LAJU PERDANA INDAH SITE KOMERING EAST OKU, SOUTH SUMATRA

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ABSTRACT

Plants can grow and get maximum production on the optimal soil conditions. Plant growth and application of agricultural machinery is affected by soil physical and mechanical properties. Processing of land to achieve the ideal conditions for plants to grow. The purpose of this study is to analyze the relationship between physical and mechanical properties of soil cultivation and processing methods to determine the most effective ground. Processing methods applied are common plowing methods and methods Trash In Corporation. The results showed that methods Trash In Corporation created a density of soil at a depth of 20-30 cm after ridgering. While the usual method of plowing is not very effective to achieve weight mean diameter.

From the land preparation results can be analyzed that the soil moisture content increases with increasing soil depth, this is caused because of evaporation due to heat of the sun. From the sample data before tilling the soil shear strength of the relationship visible soil depth, the deeper the soil sample then sliding the power factor will be reduced due to declining soil density at depth intervals deeper and deeper. Data on average cohesion and friction angle obtained in the shear strength test was obtained from the percentage factor of clay and sand fraction, increasingly clay fraction then the value will be greater cohesion as well as sand fraction greater the friction angles obtained in.

Keywords: soil physical and mechanical, land preparation,