

ABSTRACT

EFFECT OF KNIFE SERVICE LIFE ON THE STARCH CONTENT OF CASSAVA FIBER AT A COMMUNITY-BASED TAPIOCA INDUSTRY

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Starch yield of a community-based tapioca starch industry is affected by knife service life. The longer a knife is used, then the blade will be dull so that left a lot of starch in the cassava fiber (onggok). The purpose of this study was to determine the effect of life time of the grater knife on the starch content in the onggok produced from community-based tapioca industry. This research was conducted in a community-based tapioca industry in Tresnomulyo village, Sub-district of Sukaraja Nuban, District of East Lampung, from June 23 until August 25, 2014. The study was conducted by observing the starch content of onggok and the life time of knife. Starch content of onggok was measured using relative density or the specific gravity method. The results showed that knife life time affected on the starch content left in onggok . The longer a knife grater is used, the higher the starch content of onggok. The relationship of onggok starch content (Y) and knife life time (t) can be mathematically expressed as $Y = 0.190t + 3.784$ with a value of $R^2 = 0.889$ ($t = 1-34$ hours). The potential economic losses was calculated as Rp.393.000,00 (at 10.7 hours usage), Rp.1.766.800,00 (22.1 hours usage), and Rp 4.684.100,00 (34.1 hours usage).

Keywords: *cassava fiber, starch content, knife grater, knife service life, economic losses.*