**MODIFICATION OF CHIP MOCAF RACK AND TROLLEY TYPE DRYER**

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ABSTRACT

Processing of mocaf (modified cassava flour) has a "critical point" in the drying stage of the chip a fermented. The range of chip moisture content between 60-98% so prone contaminated with bacteria and fungi. In these conditions should be dried to 13 percent minimum (SNI mocaf). Sun drying using a lot of problems during the rainy season, because the quality of the chip to be down (moldy, color chips speckled black and smelly). To resolve this problem required mocaf chip drying machine is clean, fast, cheap, safe and large capacity making it suitable / feasible for small-scale processing industries mocaf. The purpose of this research is to modify the drying machine mocaf existing on a scale demonstration plots in flour production centers mocaf in the district Wonogiri.Institute for Agricultural Technology, Central of Java cooperation with the Indonesian Center for Agricultural Engineering Research and Development (ICAERD), Serpong and Diponegoro University and District Development Planning Agency Wonogiri (KKP3SL) developed a modification mocaf drying machine type trolley dimension 9200 x 3800 x 3540 mm, capacity 768 kg, using wood-burning stoves with energy systems tray and trolley. Dryer building is made from iron main frame of 40 x 40 mm, with wall and roof coverings Polycarbonate thickness of 2 mm. Part of the roof is equipped with a single turbine / vortex diameter of 500 mm to facilitate air circulation. Wood stove unit consists of a heat exchanger pipe diameter 2 inches by 60 pieces, blower diameter 500 mm, with propulsion diesel motors 6.5 HP and wind steering unit from the furnace to the building dryers. Tray is made from stainless steel wire mesh with a wood frame and angle iron can as many as 192 pieces contain of 4 kg of wet mocaf chips. Trolley made of angle iron 40 x 40 mm, made by apart pairs system (knock down). Number trolley is 19 pieces. The test results show the hybrid drying machine can dry mocaf this modification chip mocaf 768 kg for 9 hours from initial moisture content of 94.30% to the final moisture content of 9.40% to the rate of decrease in the water content of 9.43% per hour, and thermal efficiency of the drying 53.82%.

Keyword : mocaf, dryer, furnice, wood stove