

Rancang Bangun Alat Pengering Klanting Tipe Rak dengan Sumber Panas Kompor Listrik

Title	Rancang Bangun Alat Pengering Klanting Tipe Rak dengan Sumber Panas Kompor Listrik
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Abstract	<p>Abstract Klanting is a cassava products that one of special food from Banyumas residence besides Gethuk goreng and Mendoan. Problem from produced of klanting is in drying process of raw material. IKM in Banyumas residence still has been using a conventional method. It use sunshine to dry the product, so it make capacities of klanting production became decrease in rainy season. Aims of the research were: (1) to design the rack dryer equipment for klanting with heat source from electric-stove, (2) to study performance of the equipment. This research used three steps, the steps were: (1) design of dryer equipment, include: functional and structural design, (2) dryer equipment manufacturing, and (3) performance test of dryer equipment include: functional test, reliability test, test without burden and test with burden. Design and manufacture of the equipment was processed in Agricultural Mechanization laboratory, Agricultural Faculty, Jendral Soedirman University. Furthermore, it was tested in UKM Sari Murni, Tamansari village, District Of Karanglewes, Banyumas residence. Result of the research showed that as a functional and structural design it is can operate with dimensions are, length 144 cm, wide 80 cm, and high 100 cm. At performances test without burden showed that the lowest draining in 370C, highest 470C, air stream at inlet equal $6.24 \times 10^{-2} \text{ m}^3/\text{s}$, air stream exhaust $0.36 \times 10^{-2} \text{ m}^3/\text{s}$, while amount energy the required is 0.945 kW. The result of performances test with burden showed that total dryer capacities are 15.00 kg with mean capacities equal to 1.501 kg, lowest temperature in 310C, while highest temperature in 380C, air stream at inlet equal is $6.24 \times 10^{-2} \text{ m}^3/\text{s}$, air stream exhaust is $0.224 \times 10^{-2} \text{ m}^3/\text{s}$, while amount of energy required to dry klanting is 2.52 kW. Whereas water content of klanting dried by appliance is 28.21%bb or 39.52% bk from water content initial 56.15%bb. Keywords: klanting, rack dryer, electric stove Diterima: 9 November 2009; Disetujui: 16 Maret 2010</p>
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