

PEMBUATAN EDIBLE FILM DARI PATI TERMODIFIKASI (Kajian Konsentrasi Pati Garut-Butirat dan Sorbitol)

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Many kind of package has been made to reduce the product destruction, especially package from synthetic material like plastic. The usage of synthetic package has a negative influence to the environment since it is non-degradable material. One alternative could be used to reduce the package usage from synthetic material is edible film.

This research aimed to find out interaction between garut butir starch with sorbitol, find out concentration of garut butir starch also the right sorbitol concentrate to create the best physical appearance edible film.

The Research was done at farm Technology Laboratory University of Muhammadiyah Malang and Food and Nutrient Engineering Laboratory of Gadjah Mada University. The research started since June 2007 to October 2007. This research was done to make edible film from garut butir starch with sorbitol addition. This research used random group design which is arranged in factorial way with two factors. Factor I was garut butir starch concentrate consisted of 3% (g1), 6% (g2), and 9% (g3). Factor II was sorbitol concentrate consisted of 0.5% (s1), 1% (s2), and 1.5% (s3). Parameters used in the analysis were water content, thickness, elongation, tensile strength, and water vapor.

The research showed that there was an interaction between garut butir starch and sorbitol to the elongation and tensile strength value, but there was no interaction between garut butir starch and sorbitol to water rate, thickness, and water vapor. Garut butir starch has real influence to the water rate, thickness, and water vapor transmission. Sorbitol has real influence to the water rate, thickness, elongation, and tensile strength. The best treatment came from combination g3s3 (9% garut butir starch, 1.5% sorbitol) which has water rate 13.992%, thickness 0.3mm, elongation 2.45%, tensile strength 6.469N, and water vapor transmission 0.007 g.mm/m².hours