

PENGARUH PENAMBAHAN PATI PISANG KEPOK (*Musa paradisiaca* Linn) TERHADAP SIFAT FISIK DAN KIMIA EDIBLE FILMSERTA APLIKASINYA PADA WAJIK KETAN

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PENGARUH PENAMBAHAN PATI PISANG KEPOK (*Musa paradisiaca* Linn) TERHADAP SIFAT FISIK DAN KIMIA EDIBLE FILM SERTA APLIKASINYA PADA WAJIK KETAN

Risa nirmala, Fauzan Azima dan Surini Siswardjono

ABSTRAK

Penelitian ini bertujuan untuk mengetahui pengaruh penambahan pati pisang kepok terhadap karakteristik fisik dan kimia *Edible Film* serta aplikasinya pada wajik ketan. Penelitian ini menggunakan Rancangan Acak Lengkap (RAL) terdiri dari 5 perlakuan dan 3 kali ulangan. Perlakuan (penambahan pati) masing – masing : A (4%), B (4,5%), C (5%), D (5,5%) dan E (6%). Data dianalisis dengan menggunakan ANOVA dan uji lanjut *Duncan's New Multiple Range Test* (DNMRT) pada taraf 5%. Pengamatan terhadap uji fisik meliputi : ketebalan, *tensile strength*, *elongansi*, laju transmisi uap air. Analisis kimia meliputi : kadar air, asam lemak bebas (FFA), *Thio Barbituric Acid* (TBA); Uji organoleptik terhadap tekstur, warna, rasa dan aroma. Hasil penelitian menunjukkan bahwa perbedaan penambahan pati pisang berpengaruh nyata pada *tensile strength*, *elongansi*, transmisi uap air, tetapi tidak berpengaruh nyata terhadap, kadar air, TBA dan FFA. Produk terbaik adalah perlakuan A (Penambahan pati 4%) dengan rata-rata tingkat penerimaan panelis terhadap rasa (4.0), tekstur (4.1), aroma (3.3) dan warna (4.0) serta karakteristik fisik-kimia : ketebalan (0,12 mm), transmisi uap air (0,071 g.mm/m²), *tensile strength* (7,266 Mpa), *elongasi* (8,16%), kadar air (23,01%), asam lemak bebas (5,6%), dan *Thio Barbituric Acid* (0,088 mg malonaldehid/kg).

Kata kunci : *edible film*, wajik ketan, pisang kepok, sifat fisik, sifat kimia.

Effect of addition Kepok Banana (*Musa paradisiaca* Linn) on Characteristics of Physics Chemistry Edible Film and Application On wajik ketan

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ABSTRACT

This research aims to determine characteristic of physics, chemistry and organoleptics of addition kepok banana starch to edible film and application to wajik ketan and to know. The best starch addition on edible film. This research used completely Randomized Design (CRD) with 5 treatments and 3 repetitions. Data was analyzed as statically with ANOVA and continued with Duncan's New Multiple Range (DNMRT) at 5% level. The treatments in this research were the physics observation on product were thickness, tensile strength, elongation, and water content, free fatty acid (FFA), Thio Barbituric Acid. The organoleptic test were texture, color, taste and smell. The result showed there were no obvious difference to analyzed. The best product based on organoleptic test of addition banana starch (4%, 4,5%, 5 %, 5,5%, 6%) was on a treatment additional of starch (4%) with average panelist liked to taste (4,0), texture (4,1), odor (3,9), and color (4,0). Physics and chemistry analyzed of kepok banana starch edible film from A treatment were thickness (0,0120 mm), water vapor transmission rate (0,071 g.mm/m²) hours, tensile strength (7,266 Mpa), elongation (8,1%) water content (23,0%), free fat acid (5,6%), Thio Barbituric Acid (0,088 mg malonaldehyd/ kg).

Keywords: kepok banana , edible film, wajik ketan, characteristics of physics

