

Mia Dewi Surya Ajiid. NPM 180331100089. *Karakteristik Edible Film Pati Ubi Jalar Kuning dengan Penambahan Minyak Atsiri Sereh Dapur (Cymbopogon citratus)*.
Dibawah Bimbingan **Dr. Darimiyya Hidayati, S.TP., MP.** dan **Prof. Ir. Umi Purwandari, M.App.Sc., Ph.D**

ABSTRAK

Edible film merupakan pengemas makanan berbentuk lapisan tipis bersifat *biodegradable* berasal dari pati yang aman dikonsumsi. Namun, *edible film* berbasis pati masih memiliki kekurangan diantaranya bersifat mudah rapuh dan bersifat bakterisidal yang kurang optimal. Sehingga perlu dilakukan penambahan minyak atsiri sebagai antibakteri salah satunya yaitu minyak atsiri sereh dapur. Tujuan penelitian ini yaitu untuk mengetahui pengaruh konsentrasi pati ubi jalar kuning dan minyak atsiri sereh dapur terhadap karakteristik *edible film* serta menentukan proporsi terbaik pati ubi jalar kuning dan minyak atsiri sereh dapur untuk menghasilkan *edible film*. Penelitian ini menggunakan desain penelitian Rancangan Acak Lengkap Faktorial dengan dua faktor yaitu konsentrasi pati ubi jalar kuning (1, 2, 3%) dan konsentrasi minyak atsiri sereh dapur (0, 1, 2%). Parameter penelitian yang dianalisis meliputi ketebalan, kadar air, warna, mutu sensoris, dan aktivitas antibakteri. Hasil dari penelitian ini menghasilkan konsentrasi pati ubi jalar kuning berpengaruh nyata terhadap nilai ketebalan, kadar air, L (*Lightness*), dan b (*yellowness*). Sedangkan tidak berpengaruh nyata terhadap nilai a (*redness*) dan °hue. Konsentrasi minyak atsiri sereh dapur berpengaruh nyata terhadap nilai ketebalan, L (*Lightness*), b (*yellowness*), dan °hue. Sedangkan tidak berpengaruh nyata terhadap nilai kadar air dan a (*redness*) *edible film*. Perlakuan terbaik yaitu pada konsentrasi pati ubi jalar kuning sebanyak 1% dan konsentrasi minyak atsiri sereh dapur sebanyak 2% yang menghasilkan nilai rata-rata ketebalan 0,036 mm, kadar air 13%, dengan mutu sensoris agak mudah putus, beraroma menyengat dan berwarna kekuningan. Kesimpulan penelitian ini yaitu penambahan pati ubi jalar kuning dan minyak atsiri sereh dapur dapat memperbaiki karakteristik *edible film*.

Kata Kunci: *Edible Film, Pati Ubi Jalar Kuning, Minyak Atsiri Sereh Dapur*

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ABSTRACT

Edible film is a food packaging in the form of a thin film that is biodegradable derived from starch that is safe for consumption. However, starch-based edible films still have drawbacks, such as being fragile and bactericidal which is less than optimal. So it is necessary to add essential oils as antibacterial, one of which is lemongrass essential oil. The purpose of this study was to determine the effect of the concentration of yellow sweet potato starch and lemongrass essential oil on the characteristics of edible films and to determine the best proportion of yellow sweet potato starch and lemongrass essential oil to produce edible films. This study used a completely randomized factorial design with two factors, namely the concentration of yellow sweet potato starch (1, 2, 3%) and the concentration of lemongrass essential oil (0, 1, 2%). The research parameters analyzed included thickness, moisture content, color, sensory quality, and antibacterial activity. The results of this study showed that the concentration of yellow sweet potato starch had a significant effect on the thickness, moisture content, L (Lightness), and b (yellowness) values. Meanwhile, it has no significant effect on the value of a (redness) and °hue. The concentration of citronella essential oil significantly affected the thickness values, L (Lightness), b (yellowness), and °hue. While it has no significant effect on the value of water content and a (redness) edible film. The best treatment was 1% yellow sweet potato starch concentration and 2% citronella essential oil concentration which resulted in an average thickness of 0.036 mm, 13% water content, with sensory quality rather easily broken, pungent aroma and yellowish color. The conclusion of this study is that the addition of yellow sweet potato starch and citronella essential oil can improve the characteristics of the edible film.

Keywords: *Edible Film, Yellow Sweet Potato Starch, Lemongrass Essential Oil*