

RINGKASAN

IIS ISTICHAROH. Pengaruh Perbedaan Konsentrasi dan Lama Perendaman Ekstrak Nanas Terhadap pH dan Kadar Air Gelatin Tulang Paha Ayam Broiler. Tujuan penelitian ini adalah mengetahui pH dan kadar air gelatin tulang paha ayam broiler dengan konsentrasi dan lama perendaman ekstrak nanas pada taraf yang berbeda. Pengambilan data dilaksanakan tanggal 27 sampai dengan 30 Mei 2017 di Laboratorium Kesehatan Ternak, Fakultas Peternakan dan Teknologi Pertanian, Fakultas Pertanian, Universitas Jenderal Soedirman, Purwokerto. Materi yang digunakan dalam penelitian ini adalah tulang paha ayam broiler 18000 gram, ekstrak nanas 1050 ml, air 33000 ml, dan larutan buffer 2100 ml. Metode yang digunakan adalah metode eksperimental menggunakan Rancangan Acak Lengkap (RAL) faktorial 4x3x3. Faktor A yaitu taraf konsentrasi ekstrak nanas: 0% (A_0), 5% (A_1), 10% (A_2), dan 15% (A_3) serta faktor B yaitu lama perendaman dengan ekstrak nanas: 2 jam (B_1), 4 jam (B_2), dan 6 jam (B_3). Variabel yang diamati adalah pH dan kadar air. Data yang diperoleh dianalisis menggunakan analisis variansi dan jika hasilnya berbeda nyata ($P < 0,05$) dilanjutkan dengan uji *Orthogonal polynomial*. Hasil analisis variansi menunjukkan bahwa konsentrasi dan lama perendaman ekstrak nanas berpengaruh nyata ($P < 0,05$) terhadap pH gelatin, akan tetapi tidak berpengaruh ($P > 0,05$) terhadap kadar air gelatin. Interaksi konsentrasi dan lama perendaman ekstrak nanas tidak berpengaruh ($P > 0,05$) terhadap pH dan kadar air gelatin. Hasil uji lanjut ortogonal polinomial menunjukkan bahwa besarnya pengaruh konsentrasi dan lama perendaman ekstrak nanas terhadap pH masing-masing persamaannya yaitu $Y = 6,32 - 0,033X$ ($R^2 = 18,55\%$) dan $Y = 6,5 - 0,10X$ ($R^2 = 16,28\%$). Kesimpulan penelitian ini yaitu semakin tinggi konsentrasi dan lama perendaman maka akan menurunkan nilai pH gelatin namun kadar airnya sama.

Kata kunci : Gelatin, ekstrak nanas, konsentrasi, lama perendaman, pH, kadar air.

SUMMARY

IIS ISTICHAHOH. The Effect of Differences of Concentration and Soaking Time of Pineapple Extract on pH and Moisture Content of Gelatin Broiler thigh. Retrieval of data held on 27-30 May 2017 in the Laboratory Of Health, Faculty Of Animal Husbandry, and Laboratory Of Agriculture Technology, Universitas Jenderal Soedirman, Purwokerto. The purpose of this study is to determine pH and the moisture content of gelatin broiler thigh with concentration and soaking time of pineapple extract at different levels. The material used in this study are 1800 grams of broiler thigh, 1050 ml of pineapple extract, 33000 ml of aquades, and 2100 ml buffer. The method used is the experimental method using a Completely Randomized Design (CRD) factorial 4x3x3. Factor A was the levels of concentration pineapple extract: 0% (A₀), 5% (A₁), 10% (A₂), and 15% (A₃) and Factor B are soaking time with pineapple extract: 2 hours (B₁), 4 hours (B₂), and 6 hours (B₃). The variables observed were pH and moisture content. The data obtained were analyzed using variance analysis and if the results were significantly (P<0.05) then continued with Orthogonal polynomial test. The result of variance analysis showed that the concentration and soaking time of pineapple extract had significant (P<0.05) on the pH of gelatin, but no significant (P>0.05) on moisture content of gelatin. The interaction of concentration and soaking time of pineapple extract had no significant (P>0.05) on the pH and moisture content of gelatin. The result of orthogonal polynomial test showed that the influence of concentration and soaking time of pineapple extract on the pH of each equation is $Y = 6,32 - 0,03X$ (R² = 18,55%) and $Y = 6,5 - 0,10X$ (R² = 16,28%). The conclusion of this research is that the higher concentration and the longer the soaking will decrease the pH of gelatin but the moisture content was same.

Keyword : Gelatin, pineapple extract, concentration, soaking time, pH, moisture content.