

RINGKASAN

SYAPARWIYATI TRI UTAMI. Penelitian berjudul **“Pengaruh Konsentrasi Asam Asetat sebagai Bahan Pelarut dan Lama Waktu *Degreasing* terhadap Rendemen dan Kadar Lemak Gelatin Tulang Ayam Broiler”** dilaksanakan pada tanggal 4 Februari 2016 sampai 31 Maret 2016 bertempat di Laboratorium Ilmu Bahan Makanan Ternak Fakultas Peternakan Universitas Jenderal Soedirman, Purwokerto. Penelitian ini bertujuan untuk (1) mengkaji pengaruh konsentrasi asam asetat terhadap rendemen dan kadar lemak gelatin tulang ayam broiler, (2) mengkaji pengaruh lama waktu *degreasing* terhadap rendemen dan kadar lemak gelatin tulang ayam broiler, (3) mengkaji pengaruh level konsentrasi asam asetat dan lama waktu *degreasing* yang optimal terhadap peningkatan rendemen dan penurunan kadar lemak gelatin tulang ayam broiler.

Materi yang digunakan adalah tulang paha atas ayam broiler sebanyak 13,5 kg, aquades dan asam asetat. Penelitian dilakukan dengan metode eksperimental menggunakan Rancangan Acak Lengkap pola Faktorial. Perlakuan yang diterapkan terdiri dari dua faktor, yaitu faktor A adalah konsentrasi asam asetat terdiri dari C₁: 2%, C₂: 4%, dan C₃: 6%, sedangkan faktor B adalah lama waktu *degreasing* terdiri dari L₁: 4 jam, L₂: 6 jam dan L₃: 8 jam. Perlakuan yang diuji sembilan kombinasi perlakuan dan tiap kombinasi perlakuan diulang sebanyak tiga kali ulangan. Variabel yang diukur yaitu rendemen dan kadar lemak.

Hasil penelitian menunjukkan bahwa konsentrasi asam asetat dan interaksi konsentrasi asam asetat dengan lama waktu *degreasing* tidak berpengaruh nyata ($P>0,05$) terhadap rendemen dan kadar lemak. Lama waktu *degreasing* berpengaruh nyata ($P<0,05$) terhadap nilai rendemen, namun tidak berpengaruh nyata ($P>0,05$) terhadap kadar lemak. Hasil uji lanjut *Orthogonal Polinomial* menunjukkan bahwa makin lama waktu *degreasing*, rendemen gelatin tulang ayam broiler makin menurun mengikuti persamaan $Y = 1.5222222 - 0.02611111 X$. Kesimpulan hasil penelitian menunjukkan konsentrasi asam asetat terbaik untuk menghasilkan rendemen dan kadar lemak adalah 2%. Lama waktu *degreasing* terbaik untuk menghasilkan rendemen dan kadar lemak adalah 4 jam.

Kata Kunci : Gelatin, Tulang Ayam Broiler, Konsentrasi Asam Asetat dan Lama Waktu *Degreasing*.

SUMMARY

SYAPARWIYATI TRI UTAMI. The study titled "**The Effect of Acetic Acid Concentration for Solvent Material and Degreasing Duration on The Yield and Fat Content of Gelatin of Broiler Chicken Bone**" held on 4 February 2016 until 31 March 2016, at the Laboratory of Animal Feed Material Science of Animal Science Faculty Jenderal Soedirman University, Purwokerto. The objective of this research was to (1) investigate the effect interaction of acetic acid concentration and degreasing duration on the yield and fat content of gelatin of broiler chicken bone, (2) investigate the effect of acetic acid concentration on the yield and fat content of gelatin of broiler chicken bone, and (3) investigate the effect of degreasing duration on the yield and fat content of gelatin of broiler chicken bone.

The research materials were 13,5 kg of upper thigh of broiler chicken bone, aquades and acetic acid. This experimental research used a completely randomized factorial design with two factors; i.e. factor A which was acetic acid concentration consisting of C_1 : 2%, C_2 : 4%, and C_3 : 6%, and factor B which was degreasing duration consisting of L_1 : 4 hours, L_2 : 6 hours and L_3 : 8 hours. Based on the two factors there were nine combined treatments each of which was replicated three times. The variables being measured were the yield and fat content.

The results showed that acetic acid concentration and interaction acetic acid concentration with degreasing duration do not significantly affect ($P > 0,05$) the yield and fat content. Degreasing duration significantly affects ($P < 0,05$) the yield, but does not significantly affect ($P > 0,05$) the fat content. The Polynomial Orthogonal Test showed that the longer degreasing time will decrease the yield of gelatin of broiler chicken bone following the equation $Y = 1.5222222 - 0.02611111 X$. The conclusion of this research is that, in order to produce the yield and fat content, the best acetic acid concentration is 2% and the best degreasing duration is 4 hours.

Keywords : Gelatin, Broiler Chicken Bone, Acetic Acid Concentration and Degreasing Duration.