

PENGARUH INJEKSI BUMBU BAWANG DAN LAMA PENYIMPANAN TERHADAP  
KUALITAS TELUR AYAM

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Injeksi bumbu bawang ke dalam telur dilakukan sebagai salah satu cara penganeekaragaman produk dari telur. Penelitian ini dilakukan untuk mengetahui pengaruh injeksi bumbu bawang dan lama penyimpanan terhadap kualitas telur dan mengetahui kadar bumbu bawang yang menghasilkan kualitas organoleptik yang paling baik. Materi penelitian yang digunakan yaitu telur ayam layer, bawang putih, lada dan garam. Dua ratus dua puluh telur ayam dibagi menjadi empat kelompok perlakuan yaitu telur yang tidak diinjeksi bumbu bawang ( $P_0$ ), diinjeksi 2,5 ml bumbu bawang kadar 67% ( $P_1$ ), 80% ( $P_2$ ), 89% ( $P_3$ ) dan disimpan dalam *refrigerator* selama 12 hari. Pengujian kualitas fisik dilakukan setiap tiga hari sekali meliputi HU, indeks putih telur, indeks kuning telur, warna kuning telur, pH putih telur, pH kuning telur. Pengujian kualitas organoleptik meliputi bau, rasa, daya terima dilakukan setiap enam hari. Data kualitas fisik yang diperoleh dianalisis variansi pola faktorial 4X5. Data kualitas organoleptik dianalisis non parametrik dengan uji Hedonik menurut Kruskal-Wallis. Hasil analisis statistik pada kualitas fisik menunjukkan perbedaan nyata ( $P < 0,05$ ) pada perlakuan yang berbeda terhadap nilai HU, indeks putih telur, indeks kuning telur dan pH putih telur, tetapi perbedaan tidak nyata terhadap pH kuning telur dan warna kuning telur. Lama penyimpanan menunjukkan perbedaan yang nyata ( $P < 0,05$ ) pada nilai indeks putih telur dan pH putih telur, tetapi perbedaan yang tidak nyata pada nilai HU, indeks kuning telur, warna kuning telur dan pH kuning telur. Berdasarkan hasil penelitian pada telur yang diinjeksi 2,5 ml bumbu bawang dan disimpan dalam *refrigerator* selama 12 hari, diperoleh nilai HU 52,64-56,70 (grade B), indeks putih telur 0,038-0,042, indeks kuning telur 0,29-0,32, warna kuning telur 8,27-8,47, pH kuning telur 6,1-6,15 dan pH putih telur 8,69-8,94. Injeksi 2,5 ml bumbu bawang dengan kadar yang berbeda ke dalam telur ayam menurunkan kualitas fisik dan menaikkan kualitas organoleptik secara nyata. Injeksi bumbu bawang ke dalam telur dapat mempertahankan kualitas fisik dan organoleptik pada penyimpanan selama 12 hari di dalam *refrigerator*. Hasil uji kualitas organoleptik menunjukkan telur ayam yang diinjeksi 2,5 ml bumbu bawang dengan kadar 67% mempunyai kualitas yang paling baik.

(Kata Kunci : Telur Ayam, Injeksi, Bumbu Bawang,  
Kualitas Fisik, Kualitas Organoleptik, Lama Penyimpanan)

THE EFFECT OF INJECTION GARLIC SPICES AND SHELF LIFE  
ON THE QUALITY OF CHICKEN EGG

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**ABSTRACT**

Injection of garlic spices into egg were done to get the product of eggs diversification. The purpose of this experiment was to know the effect of injection garlic spices and shelf life on the egg quality as well as to obtain the most appropriate proportion of garlic spices for better organoleptic quality of egg. The materials used in this experiment were layer chicken eggs, garlic, white pepper and salts. Two hundred and twenty eggs were divided into four groups, subjected to eggs without injection garlic spices (P<sub>0</sub>), P<sub>1</sub>, P<sub>2</sub>, P<sub>3</sub>, eggs which were injected with 2,5 ml garlic spices with concentration 67%, 80%, 89% respectively and kept in refrigerator for 12 days. Every 3 days the sample were taken for physical quality test included Haugh Unit (HU), albumen index, yolk index, yolk colour, yolk pH and albumen pH values. The organoleptical qualities test included odor, taste and acceptance were done every 6 days. The physical quality data were analysed by variance analysis of factorial 4 X 5. The organoleptic quality was tested by non-parametric Hedonic test according to Kruskal-Wallis. The results showed significant differences (P<0.05) on proportion of garlic spices on the value of HU, albumen index, yolk index and albumen pH, but differences were not significant on the value of yolk colour and yolk pH. The results showed significant differences (P<0.05) on shelf life on the value of albumen index, but differences were not significant on the value of HU, yolk index, yolk colour and yolk pH. According to result of the research, eggs injected with garlic spices and kept in the refrigerator for 12 days had value of HU 52,64-56,70 (grade B), albumen index 0,038-0,042, yolk index 0,29-0,32, yolk colour 8,27-8,47, yolk pH 6,1-6,15 and albumen pH 8,69-8,94. Injection garlic spices into egg degrade the physical quality and boost up the organoleptical qualities. Injection garlic spices into egg could maintain the physical and organoleptical quality for 12 days kept in refrigerator. The results of organoleptical qualities showed chicken eggs which injected with 67% (P<sub>1</sub>) garlic spices gave the best result.

(Key Words : Chicken Eggs, Injection, Garlic Spices,  
Physical Quality, Organoleptical Quality, Shelf Life)