

**PENGARUH PENAMBAHAN EKSTRAK DAUN TEH, DAUN DELIMA,
DAUN JAMBU BIJI DAN LAMA PENYIMPANAN TERHADAP TOTAL
MIKROBA DAN KADAR PROTEIN SERTA ANALISIS DAYA TERIMA
TELUR ASIN**

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The Effect of Tea, Pomegranate, Guava Leaf Extract Treatment And Time of Storage on Microbe Total , Protein Concentration And Boiled Salty Egg Acceptance Analyze

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ABSTRACT

Background: An egg has a high nutrient value, but easy to damaged by physicals, chemicals and microbiological during the storage. One of several method is the salting by the treatment of the tea, pomegranate and guava leaf extract. The compound of polyphenol is tannin, which could be found from the leaf of tea, pomegranate and guava can be used to plate the egg shell to cover the egg shell pores, in which the water release, CO₂ release and the microbe entering could be avoided, which makes the egg has a long extent strength, likeable taste and prevented nutrient value. The objective of this research was to determine effect of tea, pomegranate, guava leaf extract treatment and time of storage on microbe total, protein concentration and boiled salty egg acceptance

Method: The research was experimental with factorial design. There were two research phases, the pre research to find out the egg storage time extent that was appropriate to consume, evaluated from color, taste, aroma and texture, the main research to determine of microbe total protein concentration and boiled salty egg acceptances, with 2 treatment, which were the extract treatment consist of the extract of tea, pomegranate, guava leaf and controlling, the storage time of 0,5,10 and 15 days. Repeated measurement have been done for twice to analyze microbe total and protein concentration. The extract of tea leaf used was black tea, whereas the pomegranate and guava leaf was taken from the fresh leaves. Statistic analysis of microbe total and protein concentration used 2 way ANOVA, then continued with Duncan and Tukey test, boiled salty egg acceptance used repeated ANOVA test (95% CI).

Result: The treatment extract of tea, pomegranate, and guava leaf on the salting of the egg have no significant effect to total microbe (p=0,027), protein concentration (p=0,449) and acceptance (p=0,443). The storage time shows a significant difference of microbe total and protein concentration (p=0,000), whereas the interaction of the treatment extract of tea, pomegranate, guava leaf and the storage time have no effect to microbe total (p=0,287) and protein concentration (p=0,244). The storage time of salted egg with the treatment of the extract tea, pomegranate and guava leaf is 5 days.

Conclusions: the treatment of tea, pomegranate, guava leaf extract can defend to boiled salty eggs was the safe storage during 5 days to microba total (10⁶ col/g), longer time of egg storage showed higher egg stored microbe total and lower protein concentration.

Keyword: boiled salty egg, extract of tea, pomegranate, guava leaf, storage time, microbe total, protein concentration, acceptance.

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Pengaruh Penambahan Ekstrak Daun Teh, Daun Delima, Daun Jambu Biji Dan Lama Penyimpanan Terhadap Total Mikroba Dan Kadar Protein Serta Analisis Daya Terima Telur Asin

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ABSTRAK

Latar belakang : Telur mempunyai nilai gizi tinggi, namun mudah mengalami kerusakan baik fisik, kimiawi maupun mikrobiologi selama penyimpanan. Salah satu metode pengawetan yaitu pengasinan dengan penambahan ekstrak daun teh, daun delima dan daun jambu biji. Kandungan senyawa polifenol yaitu tanin, yang terdapat dalam daun teh, daun delima dan daun jambu biji dapat menyamak kulit telur sehingga pori-pori kulit telur tertutup, penguapan air, pelepasan CO₂ dan masuknya mikroba dapat di cegah serta telur menjadi lebih awet, disukai dan nilai gizinya dapat dipertahankan. Tujuan penelitian ini untuk mengetahui pengaruh ekstrak daun teh, daun delima, daun jambu biji dan lama penyimpanan terhadap total mikroba dan kadar protein serta analisis daya terima telur asin.

Metode : Jenis penelitian eksperimental dengan rancangan faktorial. Ada dua tahap penelitian, penelitian pendahuluan untuk mengetahui lama simpan telur yang masih layak untuk konsumsi dilihat dari warna, rasa, aroma dan tekstur, penelitian utama untuk melihat total mikroba, kadar protein dan daya terima, dengan 2 perlakuan yaitu penambahan ekstrak yang terdiri dari ekstrak daun teh, daun delima daun jambu biji dan kontrol, lama penyimpanan terdiri dari 0,5,10 dan 15 hari. Pengulangan dilakukan sebanyak 2 kali untuk total mikroba dan kadar protein. Ekstrak daun teh yang digunakan adalah teh hitam sedangkan ekstrak daun delima dan daun jambu biji berasal dari daun segar. Analisis statistik menggunakan ANOVA 2 arah, dilanjutkan dengan uji Duncan dan Tukey, data daya terima dianalisis dengan uji ANOVA *repeated* dengan derajat kepercayaan 99%.

Hasil : Penambahan ekstrak daun teh, daun delima dan daun jambu biji pada pengasinan telur berpengaruh tidak nyata terhadap total mikroba ($p=0,027$), kadar protein ($p=0,449$) dan daya terima ($p=0,443$). Lama penyimpanan menunjukkan perbedaan yang bermakna ($p=0,000$) terhadap total mikroba dan kadar protein, sedangkan interaksi penambahan ekstrak daun teh, daun delima, daun jambu biji dan lama penyimpanan berpengaruh tidak nyata terhadap total mikroba ($p=0,287$) dan kadar protein ($p=0,244$). Lama simpan telur asin dengan penambahan ekstrak daun teh, daun delima dan daun jambu biji yang masih aman dikonsumsi adalah 5 hari.

Simpulan : Penambahan ekstrak daun teh, daun delima dan daun jambu biji mampu mempertahankan telur asin hingga 5 hari penyimpanan yang masih aman dalam batas aman total mikroba (10^6 kol/g), sedangkan lama penyimpanan berpengaruh terhadap total mikroba dan kadar protein, semakin lama telur asin disimpan maka total mikroba akan semakin meningkat dan terjadi penurunan kadar protein.

Kata kunci : telur asin, ekstrak daun teh, daun delima, daun jambu biji, lama penyimpanan, total mikroba, kadar protein, daya terima.

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