The effect on physical, chemical and sensory characteristic achieved by washing fresh mutton with banana leaf and papaya leaf ash solution / Mohd Azrul Sulong.

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DECLARATION

I hereby declare that this research project is based on my original work except for quotations and summaries which have been duly acknowledged.

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ABSTRACT

The purpose of this study was to determine the effect of fresh mutton after treated with ash solution of papaya leaf ash and banana leaf. This fresh mutton was marinated with 5 % and 10 % papaya leaf ash solution and banana leaf ash solution. The mutton was marinated with the solution for 5, 10 and 20 minutes. SAS program was used to determine the Analysis of Variance (ANOVA) and Duncan's Multiple Range Test (DMRT). The physical analysis shows that the colour, pH and texture of mutton were increased after treated with both solutions. The textures of mutton become tenderer after treatment. QDA test was used for sensory evaluation, 8 trained panelists were choose. There are five attribute for each sample, colour, mutton odor, ash odor, texture odor and overall acceptance. For cooked mutton, the attribute is colour, mutton odor, taste, texture and overall acceptance. For all attribute, there are significantly different ($p<0.05$) for raw mutton and treated mutton. Raw mutton which is treated with 10 % papaya leaf ash solution for 5 minutes showed the highest acceptance and the mean score is 6.28 ± 1.51. The highest mean score for overall acceptance for cooked mutton which is treated with 10 % papaya leaf ash solution for 10 minutes. According to this both result, it shows that papaya leaf ash solution give better reaction compared to banana leaf ash solution.

ABSTRAK

Kajian ini dijalankan adalah bertujuan untuk menentukan kesan keatas daging kambing selepas dirawat dengan menggunakan larutan abu daun pisang dan larutan abu daun betik. Daging kambing ini dirawat dengan menggunakan 5 % dan 10 % abu daun pisang dan abu daun betik. Program SAS digunakan untuk menentukan *Analysis of Variance* (ANOVA) dan *Duncan's Multiple Range Test* (DMRT). Analisis fizikal menunjukkan warna dan pH daging meningkat selepas dirawat. Manakala, tekstur daging menjadi lebih lembut selepas dirawat. Untuk ujian penilaian deria, ujian QDA dipilih. Untuk ujian ini, 8 panel terlatih telah dipilih. Terdapat 5 attribut di setiap sampel dan attribut tersebut adalah warna, bau daging kambing, bau abu, tekstur dan penerimaan keseluruhan. Untuk daging kambing yang telah dimasak, attribut yang dipilih adalah warna, bau dagung kambing, rasa daging kambing, tekstur dan penerimaan keseluruhan. Terdapat perbezaan signifikan ($p<0.05$) antara sampel daging kambing kawalan dan sampel dagin kambing yang telah dirawat. Daging kambing mentah menunjukkan penerimaan keseluruhan yang paling tinggi iaitu 6.28 ± 1.51 dimana, sample ini dirawat dengan 10 % abu daun pisang pada masa 5 minit. Bagi daging kambing yang telah dimasak, penerimaan keseluruhan yang tertinggi adalah bagi sampel yang telah dirawat 10 % larutan abu daun betikpada masa 10 minit. Berdasarkan keputusan ini, larutan abu daun betik lebih berkesan berbanding abu daun pisang.