3rd International Conference
Sustainable Agriculture, Food and Energy

Conference Programme
Papers Abstracts

Fostering Multi-Stakeholder Collaboration

on Sustainable Agriculture, Food and Energy

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- Muthia Dewi -

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FT-53

Effect of Solution Agent and Washing Time on Protein, Fat, and Cholesterol Content of Surimi-Like Material Prepared from Spent Laying Hen Meat

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Abstract: Less preference of spent laying hen meat is commonly associated with its tougher texture and unfavourable odour. Thus, it is important to manipulate the condition of such meat before applied as primary material for restructured meat products by adopting surimi processing technique. In this present study, ground meat from about 32-month-old spent laying hen (Strain Isa Brown) was used and processed into surimi-like material. Sample was treated with four solution agents (tap water, 0.5% NaCl solution, 0.04 M sodium bicarbonate, and 0.1 M sodium chloride) for two and three times washing. Then, obtained samples were analysed for protein, fat, and cholesterol contents. This study exhibited that solution agent and washing time were significantly affected properties of samples ($P<0.05$). Sample treated with tap water with three times washing showed higher protein content (16.22%); sample treated with sodium bicarbonate with three times washing exhibited lower fat content (0.14%); while sample treated with sodium chloride with three times washing revealed lower cholesterol content (139.5 mg/100 g sample). In summary, the ability of washing solution to produce expected higher protein, lower fat, and lower cholesterol are varied among solution agents. Samples with three times washing resulted better expected chemical properties and could be considered to be applied for restructured meat products manufacturing.

Keywords : spent laying hen meat, surimi-like material, solution agent, washing time

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Substitution of Red Bean in The Making Chicken Nugget

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Abstract : Nugget is one of processed chicken meat which has good taste. Nugget usually made from chicken meat but because of the expensive price and cholesterol contain so it is not well for health. The substitute can be used from healthier and safer vegetable protein like beans. Based on the reason, a research done at the chemistry laboratory of Agricultural Polytechnic State of Payakumbuh. The plan or design used in this research is Complete Random Design with 6 (six) treatments and 3 (trhee) repetitions where the nuggets without red beans addition as the control, while other treatments is the addition of red beans from 10 to 50%. The advance test done by Duncan's New Multiple Range Test (DNMRT) at the 5% real level. The observation done in this research is proximate test covering water content test, ash content, protein content and fat content and carbohidrat. The result shows that the nuggets have nutrients value close to the nuggets made from chicken is the treatment by addition of 10% red beans with 46,53% water content, 12,45% protein content, 1,55% ash content, 13,27% fat content and 27,54% carbohidrat content.

Keywords : nugget, red beans, protein

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