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Penelitian / Research

PENGOLAHAN KITOSAN (POLIMER ALAMI) DARI KULIT UDANG UNTUK BAHAN ADDITIVES

The Production of Chitosan (Natural polymer) from Shrimp Shells for Additives Uses

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ABSTRACT. The study on the productions of chitosan from shrimp and prawn shells using chemical method was conducted to obtain chitosan in relation to food and pharmacy product uses. The process of chitosan production consist of demineralization using HCL, deproteinization and deacetylation using NaOH respectively. The results shows that most of all testing parameters required have been fulfilled especially for food grade chitosan requirements. The rendemen of chitosan from raw materials was 14,1%, while the viscosity was 23,0 m Pa.s, and the degree of deacetylation was 80,23%. The disintegration time of sugar coated tablet was 31 minutes and its weight variation was 0,48%. Meanwhile the moisture content of sugar coated tablet was 2,4% wet basis.

Keywords : chitin, chitosan, shrimp/prawn shells, chitosan sugar coated tablet.

Penelitian / Research

**PENGEMBANGAN DAN PENERAPAN SISTEM HACCP (HAZARD ANALYSIS
CRITICAL CONTROL POINT) PADA INDUSTRI PANGAN DI INDONESIA**

Implementation and Development of HACCP System on Food Industry in Indonesia

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ABSTRACT. Research on implementation and development of Hazard Analysis Critical Control Point (HACCP) system on food industry in Indonesia was conducted to increase empowered of small and medium food industries (SMI's) in food safety on facing international trade and globalization. The methods used was based on descriptive analysis, that are problem identification of food safety system issue on small and medium industries (SMI's), selection and empowerment to SMI's, training and guiding in food safety system to SMI's, implementing of HACCP management system in SMI's, food safety auditing based on *FoodSafe plus* requirements and presenting of *FoodSafe Plus* award to SMI's. the result showed that the food safety system in SMI's were still weak and need to be improved in ters of good manufacturing practice (GMP) facilities, sanitation and personnel hygiene, awareness, responsibility and commitment on food safety system. The food safety audit resulted that there were five SMI's have met FoodSafe Plus requirements.

Keyword: *food safety system, HACCP, GMP, sanitation, FoodSafe Plus, identification, implementation, development, auditing.*

Penelitian / Research

**PENGGUNAAN ASAM ORGANIK DAN KECUKUPAN PANAS DALAM
PENGALENGAN BUNCIS (*Phaseolus vulgaris*)**

*The Use of Organic and Thermal Adequacy on The Canned String Beans
technical Testing of Rotary Dryer for Cat's Whiskers Leaf (*Orthosiphon stamineu Benth.*)*

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ABSTRACT. Research on the canned string beans has been conducted. The formulation used, was 1 % salt, the organic acid (0,27% citric acid and 0,22% lactic acid) and types of packaging (tinplate and retort pouch). The products were stored for 0, 2, 4 and 6 weeks. The results showed the effect of storage gave the decrease of pH, protein, vitamin C and hardness. The microbial contents were relatively unchanged during storage. The process time required for tinplate and retort pouch were 0,063 and 0,057 minutes respectively, which were adequate to render the canned string beans ($\text{pH} \leq 4,5$) microbiologically safe.

Keywords: *thermal adequacy, sterilization, citric acid, lactic acid, retort pouch, tinplate.*

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Penelitian / Research

**PENGARUH TINGKAT KEMATANGAN DAN PROSES TERHADAP
KARAKTERISTIK SARI BUAH MENGGUDU**

*The Effect of Maturity and Processing Methode on the Characteristic of Noni Fruit Juice
(Morinda citrifolia, L)*

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ABSTRACT. A Study on the effect of maturity and processing methode on the characteristics of *noni fruit juice (Morinda citrifolia. L)* has been conducted. The observation has been done toxicity, the composition of fatty acid and anthraquinone. As an addition, plant identification in terms of its taxonomy was also carried out in order to confirm that the fruits had been processed was *morinda citrifolia*. The result showed that the plants used were *Morinda citrifolia* L, lethal dose (LD₅₀) of noni juice more than 52,61 ml/kg of body weight. The composition of fatty acid showed that fruits with diferent maturity gave different composition. Regarding the anthraquinone composition, the process with heat treatment would affect the composition of anthraquinone.

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PENGARUH METODE EKSTRAKSI TERHADAP RENDEMEN DAN KADAR KURKUMIN DARI RIMPANG TEMULAWAK (*Curcuma xanthoriza Roxb*)

*The Effect of Extraction Methode to the Yield and Curcumin Content from Curcuma (*Curcuma xanthoriza Roxb*).*

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ABSTRACT. A Study on to find out the best condition in extraction of curcumin from *Curcuma xanthoriza* has been conducted. The variables the used are the solvent concentration, method of extraction, and material and solvent proportion. The result showed that semi continues process by using alcohol 95% and proportion between material with solvent 1: 8 produced the highest curcumin content. The yield has total dissolved solid 11.48% with 1.502% of curcumin.

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Ulasan Ilmiah/ Review

PERAN HIDROKOLOID DALAM INDUSTRI PANGAN

The Rule of Hydrocolloid in Food Industry

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ABSTRACT. Food processed industry is increasingly growing in a row with development of food technology. In along with the fact, utilization of hydrocolloids is also increasing in order to get good quality processed foods. There are many hydrocolloids that can be applied in food industries. Choosing hydrocolloid which is going to be applied for a product will depend on characteristics of each hydrocolloid, characteristics wanted in the product and another consideration factors.