

## KUMPULAN ABSTRAK JURNAL REKAYASA LINGKUNGAN

VOL 5, No.1 Januari 2009

ISSN : 2085-3866

**PENGARUH PENAMBAHAN DOSIS UREA DALAM AMONIASI LIMBAH TONGKOL JAGUNG UNTUK PAKAN TERNAK TERHADAP KANDUNGAN BAHAN KERING, SERAT KASAR DAN PROTEIN KASAR**

**Fariani<sup>1</sup> dan S. Akhadiarto<sup>2</sup>**

<sup>1</sup>Program Studi Nutrisi dan Makanan Ternak Fakultas Pertanian Universitas Sriwijaya

<sup>2</sup>Pusat Teknologi Produksi Pertanian, Badan Pengkajian dan Penerapan Teknologi  
JRL Vol 5.1, Januari 2009, hal 1 - 6

*The objective of this research was to study the effect of urea dose in corn cob ammoniation on the dry matter, crude fiber and crude protein. This research was done in two processes. The first process was producing corn cob ammoniation within 7 days. The second process was analyzed the nutritive value of corn cob ammoniation. This research used Completely Randomized Design with 4 treatments and 4 replications were: A (control), B (corn cob + 2% urea), C (corn cob + 4% urea), D (corn cob + 6% urea), each treatment added with poultry manure 15% of corn cob dry weight. The parameters measured were dry matter, crude fiber and crude protein. The result showed that all the treatments resulted significantly differences on dry matter, crude fiber and crude protein. The conclusion of the research was that the treatment by addition urea 4% gave the best result.*

**Key words:** Corn Cob, urea dose, poultry manure and ammoniation

**PEMANFAATAN LIMBAH DAGING BUAH PALA TUA DI MALUKU**

**Suryatmi Retno Dumadi**

Pusat Teknologi Agroindustri, BPPT, Jakarta

e-mail : sur\_dumadi@yahoo.co.id

JRL Vol 5.1, Januari 2009, hal 7 - 12

*It was until the end of 2007, the meat of nutmeg was abandoned near the trees, in Mollucas Islands, especially in Ambon island and Banda island. The nutmeg meat was considered as waste of nutmeg agribusiness.*

*An effort to make the waste become a valuable product had been done. It was used as the raw material of nutmeg syroop which gives added value to nutmeg and benefit to those who drink it.*

*The process and apparatus to make the syroop were simple, it begin with extraction of nutmeg meat, sterilization of the syroop container, mixing the extract with sugar, bottling, labeling. With the ratio of extracted juice to sugar 1:1, the product have good taste and flavor, which was preferred by panels. The syroop produced contained vitamine C 1,22% and reduced sugar of 25,35%.*

*Financial analysis showed the profit of this product was Rp.10.000,- per bottle and could be increased by expanding market and production.*

**KeyWord:** Waste of nutmeg, abandoned, added value, extracted juice, syroop, profit, market, taste, flavor

**PEMANFAATAN KULIT BUAH PISANG NANGKA SEBAGAI SUBSTRAT FERMENTASI PADAT PADA PRODUKSI XILANASE Trismilah<sup>1</sup>, Mahyudin A.R<sup>2</sup>**

<sup>1</sup>Bidang Teknologi Biokatalis, Pusat Teknologi Bioindustri, TAB (BPPT)

Gedung II, Lt 15, Jln. M.H. Thamrin No. 8, Jakarta, Telepon (021) 3169509 & Faks. (021) 3169510

Lab Teknologi Bioindustri, LAPTIAB, PUSPIPTEK, Serpong, 15314 Telp./Faks. (021) 7560536

JRL Vol 5.1, Januari 2009, hal 13 - 23

*Jackfruit skin bananas (*Musa sp.*) one of the agricultural waste that is rich nutrients for the growth of microorganisms, can be used as a substrate of xilan for the production xilanase. The research aims to know the optimum conditions of solid fermentation for production xilanase *Bacillus licheniformis* I-5 using a jackfruit skin banana as substrate. Optimization includes the incubation time for 72 hours with the interval measurement activities every six hours, the moisture content variation on the 1: 1.0 (55%); 1: 1.5 (65%); 1: 2.0 (70%); 1: 2.5 (74%) (w/v), incubation temperature variation in the 40 °, 45 °, 50 °, 55 °, 60 ° C and the addition of carbon and nitrogen source on the concentration of 1, 2, 3, 4, and 5% (w/v). Fermentation carried out in erlenmeyer 250 ml, containing 10 g cod banana jackfruit, 0.4 K<sub>2</sub>HPO<sub>4</sub>, and 0.2 MgSO<sub>4</sub> (g/l). Results of research shows that the optimum activity xilanase to 48 hours of fermentation, moisture content 1: 1.5 (65%) and incubation temperature 50 ° C with the activity of 0410 ± 0102 U/ml. The addition of glucose and prevent xilosa activities to be 0032 ± 0007 U/ml and 0053 ± 0025 U/ml concentration in 5%. Pepton addition of 4% increased the activity is not significant to control the 0487 ± 0073 U/ml.*