

- Desrosier, N. W. 1984. *Teknologi Pengawetan*. Terjemahan: Muchji Muljohardjo. UI Press, Jakarta.
- Kalie, M. B. 1994. *Budidaya Rambutan Varietas Unggul*. Penerbit Kanisius, Jakarta.
- Kartika, B., PHastuti dan W. Supranoto. 1988. *Pedoman Uji Inderawi Bahan Pangan*. Pusat Antar Universitas Pangan dan Gizi. UGM, Yogyakarta.
- Mahisworo, Kusno Susanto dan Agustinus Anung. 1994. *Bertanam Rambutan*. Penerbit Swadaya.
- Rangana, S. 1997. *Manual of Analysis of Fruit And Vegetable Products*. Tata Mc.Graw Hill, New Delhi.
- Slamet Sudarmaji, B. Haryono dan Suhardi. 1984. *Prosedur Analisa untuk bahan Makanan dan Pertanian*. Liberty, Yogyakarta.
- William J.S. and Owen J.C. 1973. *Egg Science and Technology*. The AVI Publishing Company, Connecticut.
- Winarno, F.G. 1993. *Pangan, Gizi, Teknologi dan Konsumen*. PT Gramedia Pustaka Utama, Jakarta.
- Winarno, F.G. 1997. *Kimia Pangan dan Gizi*. PT Gramedia Pustaka Utama, Jakarta.

## POLA TEMPERATUR SELAMA PENGOMPOSAN LIMBAH ORGANIK KOTORAN AYAM PADA LINGKUNGAN ALAMI DAN LINGKUNGAN ARTIFISIAL

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### Abstract

The purposes of this work are (1) to determine the pattern of temperature during the composting of organic waste of chicken manure at the natural and artificial environment (2) to determine the chemical characteristics of chicken manure. Around 700 kg organic wastes of chicken manure put in the hole of land with 2 m length, x2m wide x1m height. The other organic waste in same size put in the artificial environment. During the composting we turn the heap of compost every two weeks especially for organic waste that composted in artificial environment. The data we want to collect is the temperature of the heap of compost in the exterior zone (0-20 cm.), deep zone (50 cm from surface.) and low zone (80 cm. from surface). We also analyse the chemical characteristics include the pH, N,P,K total, NH<sub>4</sub>, Ca, Mg total and C/N ratio; while the organic fraction analysis include the cellulose, lignin, protein, total sugar. The pattern of temperature during composting present the thermophilic phase in the beginning of composting for organic wastes of chicken manure that composted in artificial condition. But this thermophilic phase only rest for one week. While natural environment give the thermophilic phase longer until more than 4 weeks. Based on this results we can conclude that the rate of organic waste of chicken manure decomposition during the composting in artificial environment is more quick than that in the natural environment. The chemical characteristics of chicken manure composted show the high contain of NH<sub>4</sub>, but in the artificial condition the loses of water is higher. Based on the results of organic fraction, the biodegradation of cellulose and lignin in the natural environment is significant than that in the artificial condition.

**Keywords:** Pattern of temperature-decomposition-organic waste-chicken manure-natural environment-artificial environment-composting.

