International Journal of ChemTech Research
CODEN (USA): IJCRGG, ISSN: 0974-4290, ISSN(Online):2455-9555
Vol.9, No.12 pp 465-469, 2016

Analysis on the most Suitable Soaking Time in Decomposition Process of *Penaeus Monodon* Organic Waste into Anorganic Substance

Andina Chairun Nisa*, Uun Yanuhar, Maftuch

Faculty of Fisheries and Marine Sciences, Universitas Brawijaya, Jl. Veteran, Malang 65145, Jawa Timur Province, Indonesia

Abstract : Shrimp farm waste is in the form of feces, food remain and dead plankton. Plankton may die due to decreasing quality of water, bad nutrients or decreasing ability of cells for metabolism. Having analyzed nutrient content in organic waste from the dead plankton, it was revealed that the organic waste contained 4.35% of organic C, 0.81% of total N and 0.32% of P. Certain process that change organic substance in the solid waste into anorganic substance should be carried out in order that phytoplankton can take advantage of the waste. Based on the previous studies, solid waste from vaname shrimp (*L. vannamei*) farm can be used as fertilizer for *Chlorella* sp. culture after soaking process.The study used 7 different soaking treatment namely 24 hours (treatment A), 48 hours (treatment B), 72 hours (treatment C), 96 hours (treatment D), 120 hours (treatment E), 144 hours (treatment F) and 168 hours (treatment G). The main parameters to observein the analysis were level of ammonium (ppm), nitrate (ppm), and phosphate (ppm). The best soaking time was 48 hours (treatment B) that resulted in 3.233 ppm of ammonium, 4.58 ppm of nitrate and 2.033 ppm of phosphate.
Keywords: Penaeus Monodon Organic Waste, Soaking Time, Ammonium Level (Ppm), Nitrate Level (ppm) And Phosphate Level (ppm).

*****