

Pissamai Yokyong 2007: Agronomic Effectiveness Practical Use and Economic Potentials of Liquid Organic Fertilizer. Master of Science (Sustainable Land Use and Natural Resource Management), Major Field: Sustainable Land Use and Natural Resource Management, Interdisciplinary Graduated Program. Thesis Advisor: Professor (Emeritus) Piya Duangpatra, Ph.D. 166 pages.

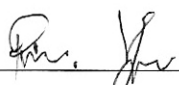
A field survey was carried out to assess the agronomic effectiveness of a liquid organic fertilizer (LOF) on the rice yield and the economic returns as well as its practical use and economic potentials for farmer's self-production and procurement from external sources. This field study was conducted in 3 sub-districts of Muang district in Saraburi province.

Either most or all of rice farmers are relatively aged, poor educated, securely owned their rice lands with the average farm holding size of around 20 to 40 rais, and having about 2 household members to do rice farming by partially depending on credits or loans from external sources. Generally, farmers grow seeded rice by using high yielding rice varieties, applying fertilizers and agro-chemicals for plant protection and harvest their produces by mechanical harvester.

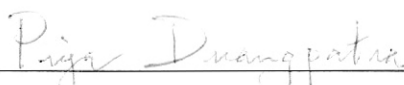
The agronomic effectiveness of the LOF is largely hinge upon the liquid spray of the LOF to the rice foliage. The best fertilizing practice for augmenting crop yield and the economic returns is the soil application of chemical fertilizer (CF) altogether with the LOF by spraying it over the remnant of the in-situ rice straw and subsequently onto the rice plant. In majority, rice farmers have had moderate to high potentials to self-produce their LOF, highly capable to procure the LOF and also having had moderate potential to adopt the LOF for rice production.

According to the farmers' positive views, the raw materials for LOF production could be easily acquired and the preparation method is either simply operational or otherwise is not at all complicated. Other pivotal incentives that also help entice farmers' adoption are derived from their neighbouring farmers' persuasion and duly dissemination and support from pertinent governmental organizations. In contrast however, all other concerns or pertinent stakeholders see that the procurement of the LOF from external sources is more relevant than the self-produce, primarily due to the insufficient household labors, high labor wages and in order to ensure good results, the LOF must be properly used always and only as the supplemental additive to the CF application.

The main causes that markedly hinder farmers' LOF-adoption comprise the relatively scarcity and the high cost of the molasses and the composting bin, huge quantity of the raw materials required and the farmers' lacking of assurance on the nutritional or agronomic quality of the LOF.



Student's signature

 20 Jan. 2007

Thesis Advisor's signature