

**Study on the appropriate duration for keeping effective liquid fertilizer  
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**Abstract**

Study on the appropriate duration for keeping effective bio extracts liquid or expiration time was conducted in fiscal year 2008 – 2010 at the Royal Land Development Operation Center, Land Development Regional Office 6th. The objectives of this study were to investigate appropriate container, duration of keeping and the decomposition rate of hormone and nutrient quantities of bio extracts liquid. There were 2 experiments. The first experiment was to study the change of hormone and nutrient content from 3 bio extracts liquid which extracted from fish, vegetable and fruit and kept for 0 – 19 months. The second experiment was to test the efficiency of 3 liquid fertilizers with plant (morning glory) by diluting with water at 1:200 times and applied for every 2 days to the pot experiment. It was prepared the same planting material for all treatments which designed as CRD. There were 7 treatments and 5 replications.

Results of the first experiment, it is found that the appropriate duration for keeping effective bio extracts liquid is 3 months for effective hormones whereas 10 months for effective plant nutrient. There were no effect of the translucent or opaque containers to keep bio extracts liquid on the change of hormones and plant nutrient.

For the second experiment, the result showed that the highest efficiency bio extracts liquid increasing percentage of plant growth rate was the extracts from fish and lesser effective were from vegetable and fruit respectively.

**Keywords:** bio extract, hormone, nutrient