

## Abstract

Study on Influence of Organic Fertilizer on Water Quality in the Organic Paddy Field, Surin province, Ubon Ratchathani province and the Buri Ram province consisted 6 treatment by water sampling in Micro plot on day 30, 60 and 90 for Study Water Quality in the Organic Paddy Field and compare with Water Quality difference in the Organic Paddy Field, with Roi-et soli series and Kula Ronghai soil series when there is Organic Fertilizer different administration.

The education divides to follow the areas can study as follows (1) Surin province, Roi-et soil series, treatment 3<sup>rd</sup> farming original agriculture + 10 kg/rai *Sesbania* + 1000 kg/rai cow dung and treatment 4<sup>th</sup> farming original agriculture + 10 kg/rai *Sesbania* + 1000 kg/rai cow dung + amendment (LDD4) 25 kg/rai + 200 l/rai liquid manures affect to dissolved oxygen (DO) average lower the standard to 3.0 and 3.5 mg/l, respectively, on day 60, (2) Ubon Ratchathani province, Roi-et soil series, treatment 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> farming original agriculture + 10 kg/rai *Sesbania* + 1000 kg/rai cow dung + amendment (LDD4) 25 kg/rai + 200 l/rai liquid manures + 500 kg/rai rock phosphate affect to dissolved oxygen (DO) average lower the standard to 3.2, 3.5 and 3.5 mg/l, respectively, on day 60, (3) Buri Ram province, Kula Ronghai soil series, experience 1<sup>st</sup>, 6<sup>th</sup> treatment affect to dissolved oxygen (DO) average lower the standard to 3.5, 3.3, 2.4, 2.7, 3.2 and 3.1 mg/l, respectively, on day 30 and (4) Buri Ram province, Kula Ronghai soil series, experience 2<sup>nd</sup>, treatment 2<sup>nd</sup> farming original agriculture + 10 kg/rai *Sesbania* treatment 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> affect to dissolved oxygen (DO) average lower the standard to 3.1, 2.6, 3.0 and 3.0 mg/l, respectively, on day 30, Quantity average ammonia-nitrogen (NH<sub>3</sub>) nitrate-nitrogen (NO<sub>3</sub><sup>-</sup>) and phosphate-phosphorus (PO<sub>4</sub><sup>3-</sup>) these concentrations were classified as the third category of national surface water quality standard. Study on encourage give the agriculturist uses the organic fertilizer in Paddy Field, be supposed to the prevention doesn't give the water from the cultivated area flows down to source of water around, because of, using organic fertilizer in 30 day (Buri Ram province) and 60 day (Surin province and Ubon Ratchathani province) which maybe affect water quality.