

Participatory Research and Development in Soil Management of Oil Palm Plantation

Mr.Phongthorn Phianphitak, Mr.Yuthasart Anuluxtipun,
Mrs. Sirimarn Momnual, and Miss Somjin Wanichsathian

Abstract

The on farm researches for soil management carried out in the Oil palm plantation at Krabi and Rayong province among LDD officials and their farmers in 2007-2008. The objectives of this researches are to compare the application rate of chemical fertilizer between conventional, decrease chemical fertilizer 30 - 40% of the conventional rate, decrease chemical fertilizer 30 - 40% of the conventional rate + organic fertilizer (TSM_SIMFARM recommendation) and the last treatment is decrease chemical fertilizer 30 - 40% of the conventional rate + organic fertilizer + Lime requirement (TSM_SIMFARM recommendation). The experiment is Randomize complete block design 4 treatments and 7 replications.

The results show that treatment 4 is decrease chemical fertilizer 30 - 40% of the conventional rate + organic fertilizer + Lime requirement (TSM_SIMFARM recommendation) that is significant difference at 95% and give the highest yield 5.25 ton/rai (S1 land suit class). The benefit cost ratio (BCR) is 6.97 and the net benefit is 16,345 baht/rai at Krabi province. At Rayong province, it is not significant difference for the Oil palm production 1.15 ton/rai. The benefit cost ratio (BCR) is 0.12 and the net benefit is 368 baht/rai (S3 land suit class).

Keywords: Soil group 45, oil palm, organic manure, saving fertilizer