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Yield Attributes of Rice (*Oryza sativa* L.) as Influenced by Expert™ complex Fertilizer Containing Macro and Micro Nutrients

Seran T.H.^{1*}, Dasinaa S.³, Imthiyas M.S.M.²

Department of Crop Science, Faculty of Agriculture, Eastern University, Chenkalady, Sri Lanka^{1,2}

Department of Agricultural Engineering, Faculty of Agriculture, Eastern University, Chenkalady, Sri Lanka³

ABSTRACT

Yield is an important factor in the sustainable surplus path of rice production in Sri Lanka. Essential of micronutrient supply in combination with major macro nutrients is tested in this experiment. A pot experiment was laid out in complete randomized design with eight treatments and three replicates to study the yield components of rice. After 105 days of planting, all reproductive parameters such as number of spikelets, grains per spikelet, filled grain percentage, total grain per hill and 1000 seed weight were recorded. All the collected data were subjected to statistical analysis. Expert was tested alone and in combination with recommended chemical practices followed by the farmers. The present study revealed that Expert @ 50 g/m² only) showed higher performance to most of the yield parameters such as number of spikelets per panicle, number of grains per spikelet, number of filled grains per spikelet, number of unfilled grains per spikelet, filled seed % per hill along with 1000 seed weight. Filled grains per spikelet, total grains per hill and filled grains per hill were significantly higher in Expert @ 50 g/m² over NPK fertilizers alone (control). Filled grains per spikelet were 174.67 in the control and 270.83 in Expert @ 50 g/m² and it was significantly varied ($P < 0.01$) between them. When compared to the control, application of Expert @ 50 g/m² could produce higher yield in rice.

KEY WORDS: expert, filled grain, rice yield, spikelet, 1000 seed weight

* Corresponding author: Seran T. H: thayaseran@yahoo.com