

FOLIAR SPRAY OF K_2SO_4 INFLUENCING TO RICE YIELD IN SOUTHERN VIETNAM

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Potassium (K) is one of the three essential macronutrients that plays an important role to enhance rice yield and grain quality properties. Ensuring an adequate supply of potassium can improve the ability of rice to tolerate to biotic and abiotic stresses as soil moisture, temperature, diseases and pests. The annual potassium demand for growth of the crop is increasing, for example the total rice growing areas in Southern Vietnam was 4.3 million hectare, the demand of the fertilizer is estimated 35 kg K_2O per hectare, it means the need of 150,000 tonnes K_2O , annually. The research results indicated that K could be used as a foliar spray fertilizer applied in rice field. Spraying K_2SO_4 with 3 times per rice season on Fluvisols, Thionic Fluvisols and Acrisols was able to replace large amount of potassium fertilizer application while ensuring productivity increased of 6.8-20.1% as compared to control. Thus economic efficiency could be estimated as VND 0.50 to 1.05 million/ha/season. Applying potassium at the dose of 30 kg K_2O /ha offered higher filled grain percentage as compared to the without K treatment in Spring-Summer season.

