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ABSTRACT OF PAPERS

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E35. Effect of Various Levels of Phosphorus on the Grain Yield of Rice in Kuru, Plateau State Nigeria

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Abstract
A 5-month study was carried out in federal soil conservation school, Kuru – Jos Plateau. It was aimed at finding the best rice variety amongst IR-1416 and faro25 using graded amounts of phosphorus at 0, 30, 60, 90 and 120 $Kgha^{-1}$ with 120kg Nha^{-1} and 100kg kha^{-1}. The phosphorus was applied once. Rice effective tillers, panicle lengths and grain yields were used to evaluate the response. The result(s) showed highest paddy yield of 4.5 tha^{-1} at 90kg-p ha^{-1} and lowest of 0.55 t ha^{-1} at 0 kg p ha^{-1}, while highest tillering was at 60 kg p ha^{-1} (1R–1416 & Faro 25). Analysis of variance table (p0.05) indicated a significant difference between the p levels in their effect on mean (paddy) grain yield of the cultivars. Faro 25 had a slight higher yield than 1R-1416 but this was attributed to error term. A fertilizer rate of 90kg-p/ha, 120kg-N/ha and 100kg-k/ha^{-1} with seed rate of 100 kg – 109 $kgha^{-1}$ were recommended for optimum yield of 4.5 tha^{-1} or more with any of the two rice varieties under good agronomic practices. The implication for extension service delivery is that there is need for increased agric, extension intensification to disseminate the findings across the rice growing communities in Plateau and beyond for increase food production, wealth creation and sustainable food security in Nigeria.

Keywords: Upland rice. P-fertilizer, food security, wealth creation and poverty reduction.