



Optimum Dose of Phosphorus and Potassium Fertilization for Enhancing Productivity and Profitability of Rice (*Oryza sativa* L.) in Irrigated Sub Tropics of Jammu

Santosh Ola, Neetu Sharma^{*}, B.C. Sharma, Vikas Sharma¹ and Rakesh Kumar

Division of Agronomy, ¹Division of Soil Science & Agricultural Chemistry, FoA
Sher-e-Kashmir University of Agricultural Sciences and Technology-Jammu-180 009, India
^{*}E-mail: hanshunitu77@rediffmail.com

Abstract: This study was undertaken to assess the effects of different phosphorus and potassium fertilizer levels on yield and economics of rice (*Oryza sativa* L.). The experiment consisted of four levels of phosphorus (control, 20, 40 and 60 kg P₂O₅ ha⁻¹) as main factor and four levels of potassium (control, 10, 20, 30 kg K₂O ha⁻¹) as sub factor in factorial randomized block design with three replication. 60 kg P₂O₅ ha⁻¹ and 30 kg K₂O ha⁻¹ recorded significantly higher grain yield (4.31 and 4.33 t ha⁻¹, respectively) and straw yield (6.21 and 6.26 t ha⁻¹, respectively) as compared to control. Similarly 60 kg P₂O₅/ha and 30 kg K₂O ha⁻¹ recorded numerically higher net returns (Rs. 53035 and 53564 ha⁻¹) with B: C ratio of 1.72 and 1.82, respectively. However, economic optimum dose of phosphorus and potassium can be 28 kg P₂O₅ha⁻¹ and 18 kg K₂O ha⁻¹.

Keywords: Economic optimum dose, Net returns, Phosphorus, Potassium, Yield
