

Title: Integrated Nutrient Management and Formulation of Targeted Yield Equation
for Blackgram (*Vigna mungo L.*)

Authors: Subhashis Saren¹, Antaryami Mishra¹ & Pradip Dey²

Affiliation: ¹ Orissa University of Agriculture and Technology, Bhubaneswar

²Indian Institute of Soil Science, Bhopal

Corresponding Address:

Dr. Subhashis Saren, Assistant Professor, AICRP on STCR, Department
of Soil Science and Agricultural Chemistry, Orissa University of
Agriculture and Technology, Bhubaneswar, Odisha, 751003 (India)

ABSTRACT

Three fertility gradient stripes were created in an *Inceptisol* of Odisha by applying no fertilizer, recommended dose of fertilizer (RDF) and double the RDF and paddy was grown during kharif, 2013-14. These three stripes were sub-divided into 24 sub plots and black gram was grown with different graded doses of fertilizers and manure during rabi. Initial and post harvest soil nutrient status, nutrient uptake, nutrient requirement, soil efficiency, fertilizer efficiency and yield data were observed. The highest yield (12.09 q ha⁻¹) was achieved with 30:50:50 (N:P₂O₅:K₂O). Based on the above data fertilizer prescription equations were formulated for targeted yield of black gram in *Inceptisols* of Odisha.

Key words: Blackgram, Inceptisols, targeted yield, fertilizer prescription equations