



## Fertilizer Prescription for Targeted Yield of Rice (*Oryza sativa* L var. Saryu-52) in an Inceptisol of Varanasi

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**Abstract:** The development of prescription based fertilization recommendations for a given soil crop fertilizer situation takes into account the soil fertility status as well as crop needs and is thus based on balanced nutrition of crops. So, the target yield concept involves fertilizer recommendation based on yield targets to be achieved taking into consideration the contribution of soil available nutrients and fertilizer nutrients for total uptake. Three field experiments were conducted at farmers fields to check the validity of the fertilizer adjustment equation for rice crop (cv. Saryu-52) by comparing control, farmers practice, general recommended doses of fertilizers and fertilizer doses based on soil test crop response (STCR) for 45 q ha<sup>-1</sup> for ascertaining the economics of each practice. Results of the study showed the superiority of the target yield concept over the other practices as it gave higher yield and optimal economics returns. The yield targets were achieved within reasonable limits when the fertilizer was applied on soil test basis in rice thus establishing the utility of the adjustment equations for recommending soil test based fertilizer application to the farmers.

**Key Words:** Benefit Cost Ratio, Target Yield, Fertilizer, Farmer Practice, Soil Test.

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