



Yield and economics of rice (*Oryza sativa*) genotypes in system of rice intensification (SRI) under Central Uttar Pradesh condition

RAJIV*, H.G. PRAKASH¹ AND D.P. SINGH

Department of Vegetable Science, Directorate of Extension, C.S.Azad University of Agriculture and Technology, KANPUR (U.P.) INDIA (Email : rajiv.gram@gmail.com, rajiv.agro69@gmail.com)

Abstract : A field experiment was conducted during *Kharif*, 2008 at K.V.K. Farm Thariaon, Fatehpur (U.P.) with SRI technique of rice cultivation. Treatments comprised 2 genotypes (PR -113 and PHB-71) in main plots, 2 age of seedlings (10 and 12 days) in sub-plots and 2 plant spacings (25 x 25 and 30 x 30 cm) in sub-sub plots of a split plot design. Each treatment plot received uniform dose of 75 kg N+37.5 kg P₂O₅ + 30 kg K₂O + 12.5 kg ZnSO₄/ha. The results revealed that hybrid PHB-71 recorded significantly higher values of growth and yield attributes and produced 1156 kg/ha or 15.7 per cent more grain yield and earned Rs. 17874/ha or 36.7 per cent more net return than the high yielding variety PR-113. Among seedlings age, 10 day old seedlings performed significantly better than 12 day seedlings in respect to growth and yield attributes. Grain yield with 10 day seedlings transplanting was recorded 256 kg/ha or 3.3 per cent more than 12 day old seedlings. Similarly, 10 day old seed lings earned Rs. 2429 / ha or 4.3 per cent higher net return than the transplanting of 12 day old seedlings. Difference between two plant spacings was not found significant in yield or economics of rice.

Key Words : Rice, SRI, Genotypes, Yield, Economics

View Point Article : Rajiv, Prakash, H.G. and Singh, D.P. (2012). Yield and economics of rice (*Oryza sativa*) genotypes in system of rice intensification (SRI) under Central Uttar Pradesh condition. *Internat. J. agric. Sci.*, 8(2): 491-493.

Article History : Received : 23.04.2012; Revised : 15.05.2012; Accepted : 29.05.2012

INTRODUCTION

The system of rice intensification (SRI) is a new method of transplanted rice culture. It is particularly well suited for cultivation of hybrid rice, since it not only saves the seed cost (75% saving) but also helps in saving about 30-40 per cent water (Subbaiah *et al.*, 2005). It was reported by Uphoff (2003) that SRI method comprises of three basic concepts : transplanting young seedlings, at wider spacing in square pattern and keeping soil moist and aerated during vegetative phase. Later some modifications were tried in SRI method to suit the local needs. The proponents of SRI have claimed substantial increases in rice productivity (Sinha and Talati, 2007). Hybrid rice due to it's higher yield potential is getting importance in rice growing areas of Uttar Pradesh. With a

view to exploit the yield potential of hybrid rice, SRI method was tested with some modifications in central part of Uttar Pradesh.

MATERIALS AND METHODS

A field experiment was conducted at Krishi Vigyan Kendra Farm, Thariaon, Fatehpur (U.P.) during *Kharif*, 2008 to study the age of seedlings and plant spacings on performance of two rice genotypes under transplanted condition. The experimental soil was clay loam in texture and alkaline in reaction (pH 7.8) having 0.35 per cent organic carbon, 164.7 kg/ha available nitrogen, 17.50 kg/ha available P₂O₅ and 218.6 kg/ha available K₂O. The treatments comprised 8 combination of 2 genotypes (PR-113 and PHB-71), 2 age of

* Author for correspondence.

¹Department of Animal Husbandry and Dairying, C.S.Azad University of Agriculture and Technology, KANPUR (U.P.) INDIA