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Research Paper

ADVANCE RESEARCH JOURNAL OF
C R P
IMPROVEMENT
Volume 5 | Issue 2 | Dec., 2014 | 63-68
..... e ISSN-2231-640X

DOI :
10.15740/HAS/ARJCI/5.2/63-68
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Effect of fertility levels, genotypes and planting pattern on yield and economics of rice under SRI during dry season in coastal Odisha

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ABSTRACT : A field experiment was conducted during the *Rabi* seasons of 2012-2013 and 2013-2014 at the Agronomy Main Research Station of Orissa University of Agriculture and Technology, Bhubaneswar in Split Plot Design with three replications. Combinations of three fertility levels and two genotypes were taken in main plots and four different methods of planting were allotted to subplots. The fertility level with 3 splits of N @ 50 per cent at planting + 25 per cent top dressing at 30 DAS+25 per cent top dressing at 60 DAS (F₂) recorded the significantly highest grain yield in the first year while F₃ (organics) recorded highest grain yield in the second year. The HI for both the years were almost same (0.44). The hybrid 'Arise gold' produced significantly higher grain yield (6.82 t ha⁻¹ in the first year and 6.39 t ha⁻¹ in the second year) as compared to that of conventional variety Lalat (5.51 t ha⁻¹ in the first year and 4.91 t ha⁻¹ in the second year). The treatment of S₂ *i.e.* 25 cm square planting with two spaced (5cm) seedlings hill⁻¹ recorded significantly highest grain yield which was at par with the treatment S₄-30 cm with three seedlings hill⁻¹ in a traingular method. With respect to economics F₂, the variety Arise gold and S₂ recorded the highest gross return, net return and B : C ratio.

Key Words : SRI, Fertility levels, Organic, Genotypes, Planting pattern

How to cite this paper : Ray, Plabita and Barik, T. (2014). Effect of fertility levels, genotypes and planting pattern on yield and economics of rice under SRI during dry season in coastal Odisha. *Adv. Res. J. Crop Improv.*, 5 (2) : 63-68.

Paper History : Received : 20.08.2014; Revised : 01.10.2014; Accepted : 15.10.2014