

## STUDY THE IMPACT OF WEED ON RICE GENOTYPES YIELD UNDER TRANSPLANTING AND SRI CONDITION

Nirmala Panda and Anup Kumar Paul

Indira Gandhi krishi vishwavidalaya Raipur (C.G)

Email: anupfmkvk@rediffmail.com

**Abstract:** The present investigation was carried out during kharif 2006-07 at instructional farm of Indira Gandhi Krishi Vishwavidyalaya, Raipur. The experiment was conducted in split plot design in field and CRD in laboratory condition replication in twice. It was observed that the yield was higher in SRI method in almost all genotypes of rice as compared to control. The higher yield was recorded in R-548-89-6 followed by Safri-17 and Vasumati. While genotype Safri -17, R-1060-1674-1-1 and R-1072-360-1, were found suitable in SRI method. While, Dubraj, Danteshwari, and Indira Sugandhit Dhan were found more suitable for transplanted situation for yield improvement. Indira Sugandhit Dhan, Dubraj and R-1182-167-2-157-1 have shown allelopathy potential less difference in yield under unweeded and hand weeding twice condition. Maximum loss due to weed was observed in R-548-89-6 followed by R-1060-1674-1-1, R-1249-1196-2-1 and R-979-1528-2-1.

**Keyword:** Rice genotype, SRI, transplanting, yield

### REFERENCES

- Ahn, J.K., Hahn, S.J., Kim, J.T., Khanh, T.D and Chung, I.M.** (2005). Evaluation of allelopathic potential among rice (*Oryza sativa* L.) germplasm for control of *Echinochloa crusgalli* Beauv in the field. *Crop Protection* .24(5):413-419.
- Archana, Y., Chauhan, S.V.S and Yadav, A.,** (1998). Studies on allelopathic L. effect of some weed. *Journal of Phytochemical Research*, 11: 15-18.
- Asghari, J. and Mousavi, S.Y.,** (2002). Allelopathic effect of rice varieties on barnyardgrass and umbrella sedge. *Iranian journal of plant pathology* .38(1/2) :133-143
- Belz, G. Regina,** (2006). Allelopathy in crop/weed interaction –an update point Email:regina.Belz.9belz@uni-hohenheim.de
- Choi, C., D., Moon B.C., Kim, S.C. and Oh, Y.J.** (1995). Weed growth and effective control in direct seeded rice field. *Korean J. weeds sci.*(3)175-182 .
- Dilday, R.H., J. Lin, and W. Yan.** (1994). Identification of allelopathy in the USDA-ARS rice germplasm collection. *Aust. J. Exp. Agric.* 34:901-910.
- Fofana, B and Rauber, R.** (2000). Weed suppression ability of upland rice under low input condition in west Africa. *Weed Research Oxford*.40 (3):271-280.
- Gomez, K.A.** (1972). Technique for field experiments with rice. *In: Int. Ric. Res. Inst. Los Banos*, Phillipines. pp.113.
- Klaita, D., Choudhary, H. and Dey, S.C.** (1999). Assessment of allelopathic potential of some common upland rice weed species morpho physiological properties of rice (*Oryza sativa* L.) plant. *Crop Research Hisar*.17(1):41-45.
- Kanchan, S.D.** (1975). Growth inhibitor from *Parthenium hysterophorus* Linn. *Current sciences* .44:358-359
- Madhu, M. and Nanjappa, H.V.** (1997). Effect of herbicides on chlorophyll content and grain yield of direct seeded rice under puddle condition. *Indian J. weed sci.*, 29 (3 and 4) :159-162.
- Narayanakar, N.T.** (2004). Effect of foliar spray of 2,4-d and cultural operation on weed management in medium and long duration transplanted rice and its impact on growth attributes in weeds crop. *Msc (Ag) Thesis, IGAU Raipur* .
- Oudhia, P. and Tripathi, R.S.** (2000). Allelopathic research on rice seeds in Chhattisgarh (India) region. *Advance in agriculture research in India* 14:69-80.
- Sarath, P., Bandara, T.** (2006). Comparison of productivity of system of rice intensification and conventional rice farming system in dry zone region of Sri Lanka international conference March 2006.