

## WEEDS AFFECTING THE PRODUCTIVITY OF RICE: A PERSPECTIVE ASSESSMENT BY THE FARMERS OF PLATEAUX (PAT AREAS) OF NORTHERN HILLS AGRO-CLIMATIC ZONE OF CHHATTISGARH

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**Abstract:** Chhattisgarh has a tremendous agricultural potential with a diversity of soil and climate, mountains, plateau, rivers, natural vegetation and forest. Diversified crops and cropping systems are the typical characteristics of Chhattisgarh and rice is the major crop of the region. Due to the variations in terms of soil topography, rainfall intensity and distribution, irrigation, adoption of agricultural production system socio-economic conditions of the farmers, there are the variation in practices and varieties as well as the productivity of rice in these regions. Weed is one of the important factor caused reduction in the productivity of rice. In this perspective the present study was undertaken in the plateaux (Pat areas) of Northern Hills Agro-climatic Zone of Chhattisgarh state with data collected from 240 farmers. The findings shows that, majority of the respondents perceived that Samna (*Echinochloa spp.*), Bhorandi/Badauri (*Ischaemum rugosum*), wild rice (*Oryza spp.*), Motha (*Cyperus spp.*), Kankauwa (*Commelina bengalensis*), Machhli ankh (*Panicum repens*), Banmirchi (*Sphenoclea zeylanica*) and Masariya (*Corchorus spp.*), in order are the major weeds causing yield loss in rice. Accordingly it was found that the severity of *Echinochloa spp.* was highest. The yield loss caused due to these weeds is up to 75 per cent perceived by few farmers. Remarkably, it was found that almost all farmers follows the traditional weed management practices and only few rice growers were using chemicals for the management of weeds. It shows a complex situation which has to be overcome by incorporating strategic extension approaches so that the weed management can be done effectively to increase the productivity and profitability from rice cultivation.

**Keywords:** Rice, Plateaux, Weed control, Productivity, Yield loss

### REFERENCES

- Anonymous** (2012). Model training course on rice production technology. *Directorate of Extension Services*, IGKV, Raipur (C.G.). pp 1-119.
- Jacob, D. and Syriac, E. K.** (2005). Performance of transplanted scented rice (*Oryza sativa* L.) under different spacing and weed management regimes in southern Kerala. *Journal of Tropical Agriculture*, **43** (1-2): 71-73.
- Mahajan, G., Singh, S. and Chauhan, B. S.** (2012). Impact of climate change on weeds in the rice-wheat cropping system, *Current Science*, **102**(9): 1254-1255.
- Parameswari Y. S., Srinivas, A., Ram Prakash, T. and Narendar, G.** (2014). Effect of different crop establishment methods on rice (*Oryza sativa* L.) growth and yield – A review, *Agriculture Reviews*, **35** (1): 74-77.
- Shori, R. K.** (2011). Attitude of farmers regarding adoption of control measure practices of various weeds of rice crop in Dhamtari district of Chhattisgarh state. *M.Sc. (Ag.) Thesis*, IGKV, Raipur (C.G.).
- Singh, A., Kaur, R., Kang, J. S. and Singh, G.** (2012). Weed dynamics in rice-wheat cropping system, *Global Journal of Biology, Agriculture and Health Sciences*, **1**(1):7-16.
- Sridevi, V., Jeyaraman, S., Chinnusamy, C. and V. Chellamuthu, V.** (2013). Weed management in lowland rice (*Oryza sativa* L.) ecosystem- A review, *International Journal of Agricultural Science and Research (IJASR)*, **3**(3): 13-22.

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