

# KNOWLEDGE AND ADOPTION OF CONTROL MEASURE PRACTICES OF VARIOUS WEEDS OF RICE CROP IN CHHATTISGARH

R.K. Shori<sup>1</sup>, K.K. Shrivastava<sup>2</sup>, Dilip Kumar<sup>3</sup> and P. Shrivastava<sup>4</sup>

<sup>1</sup> Dept. of Ag. Extension, COA, IGKV, Raipur (C.G.).

<sup>2</sup> Dept. of Ag. Extension, COA, IGKV, Raipur (C.G.).

<sup>3</sup> Dept. of Ag. Extension, COA, IGKV, Raipur (C.G.).

<sup>4</sup> SMS, KVK, Chhattarpur, JNKVV, Jabalpur (M.P.)

**Abstract:** Rice (*Oryza sativa* L. var. *Indica*) is the most important major cereal food crop in agriculture and economy of India. In world, rice is the second most widely consumed cereal next to wheat. Chhattisgarh is popularly known as the “Rice Bowl of India”. The extent of yield reduction of rice due to weeds is estimated to be 15-95 per cent. In Chhattisgarh state, farmers generally control weeds manually. The physical methods are costly, labour consuming and the advantage of manual weeding could only be achieved when it is performed timely. Chemical and mechanical weed controls are regarded to be better than hand weeding and meagre availability of labour at peak period of weed infestation. In this respect, application of new and wide spectrum herbicide is done or in combination may give satisfactory weed control. Out of the thirty weeds infesting paddy crop, nine weeds are of major economic importance. A research was organised to assess the knowledge and adoption of control measure practices of various weeds of rice crop and average yield losses due to various weeds. In all one hundred and sixty rice growing farmers were randomly selected from purposively chosen Dhamtari and Nagri blocks of Dhamtari district of Chhattisgarh and personally interviewed with the help of structured interview schedule to collect the relevant information from the respondents. The data were statistically analysed and logically presented in tabular form. The result of the study revealed that the exception of Resamkata (*Alternanthera sessilis* L.), majority of the rice growers had medium knowledge regarding control measure practices of various weeds of rice crop viz. Motha (*Cyperus spp.*), Kala bhengra (*Eclipta prostrata* L.), Sol ghas (*Aeschynomene indica* L.), Kaula keni (*Commelina benghalensis* L.), Pekereal weed (*Monochoria vaginalis*), Badauri (*Ischaemum rugosum* L.), Machharia (*Corchorus aestuans* L.) and Sawa (*Echinochloa colona* L.). Sawa followed by Resamkata (14.38%), Motha (6.25%), and Kala bhingra (6.25%). As regards low knowledge 38.12, 25.00, 18.12, 18.12, 17.50, 16.25, 12.50 and 11.25 per cent respondents were found to have low knowledge about Resamkata, Machharia, Pekereal weed, Badauri, Kaula Sol ghas, Kala bhengra and Motha respectively. It was also observed that majority of the respondents 71.87, 68.75, 66.87 and 58.75 per cent had medium adoption of control measure practices of Sol ghas, Motha, Sawa and Machharia respectively. 41.25 per cent respondents had high adoption of control measure practices of Resamkata while 23.12 per cent had low adoption of control measure practices of Resamkata.

**Keywords:** Knowledge, Adoption, Rice weeds

## REFERENCES

- Anonymous** (2008-09). Report of Agriculture Department. Krishi Diary, Directorate of Extension Services, IGKV, Raipur, p:5.
- Anonymous** (2010). FAO.STAT.database. Food and Agriculture Organization of the United Nation, Rome, Italy.
- Choudhary, R.P., Singh, P. and Mishra, B.** (2001). Correlates of adoption of improved rice technology. *Indian J. Extn. Edn.* **37**(2&4): 26-29.
- Dubey, S.K., Swarnkar, V.K. and Chakravarty, H.G.** (1992). Knowledge and adoption of the rice production technology among small and marginal farmers. *Maha. J. Extn. Edn.* **11**: 79-84.
- Dwivedi, R., Kolhe, S.S., Malaiya, S. and Nair H.G.** (2003). Weed density and dry matter accumulation in direct seeded rice under puddled condition as influenced by weed management practices. *J. Agri. Issues* **8**(182):105-108.
- Hedau, J.** (2000). Need assessment of the farmers from their perceptive related to adoption of paddy production technology in Raipur district of M.P. Unpublished M.Sc. (Ag.) Thesis, IGKV, Raipur.
- Mani, U.A., Gautam, K.C. and Chakraborty, T.K.** (1968). Losses in crop yield in India due to weed growth. *PANS* **14**: 142-58.
- Nagappa and Biradar, D.P.** (2002). Effect of methods of planting and weed management practices on yield and yield attributes of rice (*Oryza sativa*). Extended summaries 2<sup>nd</sup> International Agronomy Congress, Nov. 26-30, New Delhi, India. **2**: 926-927.
- Razafimalala, N.C.** (1996). Preliminary results of experiments on control measure of weed in the middle West region of Madagascar Seizieme conference *duculum. Journal of Journees International Surla Lutte Controles maiuriases nerbes*, Reins, France. pp: 381-386.
- Saraswat, V.N., Bhan, V.M., and Yaduraj, N.T.** (2003). Weed management. Indian Council of Agricultural Research, New Delhi. pp: 1-37.
- Sharma, R.** (2009). Weed control in kharif crops. *Kheti*, Directorate Extension Survices, IGKV, Raipur. pp :15-16.
- Shrivastava, R., Shrivastava, K.K., Sarkar, J.D. and Shrivastava, P.** (2010). Analysis of problems faced by the farmers in adoption of control measures of diseases of rice. *Journal of Interacademia.* **14**(2): 260-266.
- Singh, R. and Kumar, A.** (2007). Weed control strategies adopted by farmers in wheat crop. *Agril. Extn. Review.* July-Dec. pp: 13-15.
- Viraktamath, B.C. and Shobharani, N.** (2008). Rice: Pivotal position achieved by combination of factors. In: Ram, N. (ed.). *The Hindu survey of Indian Agriculture. Kasturi and Sons Ltd.*, Chennai, pp: 22-24.