

EFFECT OF POST EMERGENCE HERBICIDE FOR WEED MANAGEMENT IN FINGER MILLET

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Abstract: There were thirteen treatments which comprised single application of different post-emergence herbicides either alone or in combination and hand weeding was conducted on Clayey *Vertisols* soil of College of Agriculture, Raipur during *kharif* season of 2012. *Echinochloa colona* among grasses, *Cyperus iria* among sedges and *Alternanthera triandra*, *Eclipta alba* and *Phyllanthus urinaria* among broad leaf weeds were dominant. Application of metsulfuron methyl + chlorimuron ethyl and ethoxysulfuron alone was found most suitable for weed control without any harm to the crop. There was complete control of broad leaf weeds *viz.* *Alternanthera triandra*, *Eclipta alba* and *Phyllanthus urinaria* and sedges *i.e.* *Cyperus iria* by the application of metsulfuron methyl + chlorimuron ethyl and ethoxysulfuron, where as grassy weed *i.e.* *Echinochloa colona* was completely killed by the application of fenoxaprop-p-ethyl. Hand weeding twice recorded the highest grain yield and net return. Application of ethoxysulfuron registered the highest B:C ratio which was at par with metsulfuron methyl + chlorimuron ethyl and hand weeding twice.

Keywords: Weed management, Finger millet

REFERENCES

- Ashraf, M. M., Awan, T. H., Manzoor, Z., Ahmad, M. and Safdar, M. E. (2006). Screening of herbicides for weed management in transplanted rice. *Journal of Animal and Plant Science* **16**: (1-2).
- Gomez, K.A. and Gomez, A.A. (1984). Statistical procedures for Agricultural Research. A Willey-Interscience Publication, John Willey and Sons, New York, 2nd edition pp 108-127.
- Kumara, O., Basavaraj Naik, T. and Palaiah, P. (2007). Effect of weed management practices and fertility levels on growth and yield parameters in Finger millet. *Karnataka Journal of Agricultural Sciences* **20**(2): 230-233.
- Kushwaha HS, Tripathi ML and Singh VB. (2002). (Eds.). Weed management in coriander (*Coriandrum sativum*). In: *Proceeding of Second International Agronomy Congress on Balancing Food and Environment Security: a Continuing Challenge* (Eds.), Singh Panjab, IPS Ahlawat and Gautam RC. *Indian Society of Agronomy*, IARI, New Delhi: 985-987.
- Lall, M. and Yadav, L.N.S. (1982). Critical time of weed removal in finger millet. *Indian Journal of Weed Sciences* **14**: 85-88.
- Mani, V.S., Malle, M.L., Gautam, K.C. and Bhagwandas. (1973). Weed killing chemicals in potato cultivation. *PANS* **23**(8): 17-18.
- Narwal, S., Singh, S., Panwar, K. S. and Malik, R. K. (2002). Performance of acetachlor and anilofos + ethoxysulfuron for weed control in transplanted rice (*Oryza sativa* L.). *Indian Journal of Agronomy* **47**(1): 67-71.
- Prasad, T. V. R., Sanjay, M. T., Denesh, G. R., Kumar, H. S. R., Ananda, N., Lokesh, D. S. and Upanal, S. (2010). Influence of time of sowing and weed control methods on yield and economics of direct seeded rice. *In*: Proceeding of the Biennial Conference of Indian Society of Weed Science on "Recent Advances in Weed Science Research - 2010", February 25-26, 2010, Indira Gandhi Krishi Vishwavidyalaya, Raipur, Chhattisgarh p. 58.
- Prasad, T.V.R., Narasimha, N., Dwarakanath, N., Munegowda, M.K. and Krishnamurthy, K. (1991). Integrated weed management in drilled finger millet (*Eleusine coracana* (L.) Gaertn.). *Mysore Journal of Agricultural Sciences* **25**(1): 13-17.
- Reddy, C. N., Reddy, M. D. and Devi, M. P. (2000). Evaluation of fenoxypop-P-ethyl and ethoxysulfuron in transplanted rice. *Indian Journal of Weed Science* **32** (1/2): 105-107.
- Saini, J. P. and Angiras, N. N. (2002). Evaluation of ethoxysulfuron against broad-leaved weeds and sedges in direct seeded puddled rice. *Indian Journal of Weed Science* **34** (1/2): 36-38.
- Sharifi, M. (2003). Efficacy Evaluation of the biproposal herbicide, Ethoxysulfuron + Oxadiargyl on paddy fields in comparison with current rice herbicide. Rice Research Institute of Iran. Rasht (Iran).
- Singh, D. K. and Tiwari, A. N. (2005). Effect of herbicides in relation to varying water regimes in controlling weeds in direct seeded puddled rice. *Indian Journal of Weed Science* **37**(3/4): 193-196.
- Singh, R.K., and Namdeo, K.N. (2004). Effect of fertility levels and herbicides on growth yield and nutrient uptake of direct seeded rice. *Indian Journal of Agronomy* **49**(1): 34-36.
- Singh, R.V. and Arya, M.P.S. (1999). Effect of integrated weed management practices on the yield of ragi under rainfed conditions. *Bhartiya Krishi Anusandhan Patrika* **14**(3/4): 19-24.