

EFFECT OF POST EMERGENCE HERBICIDE ON WEEDS AND ECONOMICS OF FINGER MILLET

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Abstract: Weeds are the major biotic stresses for finger millet cultivation. Initial slow growth of the finger millet favours weed growth. *Echinochloa colona* among grasses, *Cyperus iria* among sedges and *Alternanthera triandra*, *Eclipta alba* and *Phyllanthus urinaria* among broad leaf weeds were dominant. Weed index (loss of yield due to weeds) was found to be minimum with application of ethoxysulfuron (34.37 %). The maximum weed index was found with application of fenoxaprop-p- ethyl (93.62 %) at higher level (45.0 g ha⁻¹). In the experimental field, the most dominant species was *Echinochloa colona* which ranged between 24-46 per cent at all the growth stages. It was followed by *Phyllanthus urinaria* (13-18 %), *Eclipta alba* (5-26 %), *Cyperus iria* (3-23%) and *Alternanthera triandra* (5-12 %). 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 and showed 100% weed control efficiency, respectively. 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, Herbicide, Weed

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