

**EFFECT OF WEED MANAGEMENT ON INDIAN MUSTARD
(BRASSICA JUNCEA L.) CULTIVARS**

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Abstract: A field experiment was conducted at Banaras Hindu University, Varanasi (U.P.) during winter (*rabi*) seasons of 2011-12 and 2012-13 to develop weed management practices for popular Indian mustard (*Brassica juncea* L.) cultivars, viz., 'Kranti', 'Pusa bold' and 'Varuna' with pre-emergence application of alachlor 0.75 kg/ha, pendimethalin 0.75 kg/ha and metolachlor 0.75 kg/ha alone or their integration with hand weeding after one month of sowing. Pre-emergence application of alachlor 0.75 kg/ha, pendimethalin 0.75 kg/ha and metolachlor 0.75 kg/ha with one hand weeding at 30 days after sowing (DAS) were the most effective in minimizing weed population and their dry weight in mustard. These treatments recorded maximum seed yields (19.71, 19.06 and 18.94 q/ha) and increase 47.76%, 42.77% and 41.87% over weedy check, respectively. No significant difference was seen in mustard cultivars with respect to weed management. The maximum seed yield was obtained with 'Kranti'. The net return was maximum in alachlor 0.75 kg/ha applied along with hand weeding over other treatments. Unchecked weeds caused 32.27% seed yield loss with minimum net return.

Keywords: Cultivars, Herbicides, Hand weeding, Indian mustard, Weed, Yield

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