



Bio-efficacy of alone and mixture of herbicides against complex weed flora in wheat (*Triticum aestivum*) under sub-tropical conditions

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ABSTARCT

A field experiment was conducted during winter season of 2011-12 and 2012-13 at Research Farm, AICRP on wheat and barley, Sher-e-Kashmir University of Agricultural Sciences and Technology of Jammu to study the effect of different herbicides and its mixtures on broad spectrum weed management and productivity of wheat (*Triticum aestivum* L.). Unchecked weeds growth caused 40.13 to 57.18% reduction in grain yield of wheat. The lowest weed density and dry matter of weeds and higher yield and yield attributes were found with application of ready mix formulations of clodinafop+metribuzin (60+210 g/ha), sulfosulfuron+metsulfuron (32 g/ha) and pinoxaden+metribuzin (40+210 g/ha). The maximum weed control efficiency and lowest weed index were observed with clodinafop+metribuzin (60+210 g/ha) followed by sulfosulfuron+metsulfuron (32 g/ha) and pinoxaden+metribuzin (40+210 g/ha). The alone application of clodinafop 60 g/ha was significantly reduced the weed density and weed dry weight than alone application of metribuzin 210 g/ha, pinoxaden @ 40 g/ha and sulfosulfuron 25 g/ha but these were significantly lower than weedy check.

Key words: Bio-efficacy, Weed control efficiency, Weed density, Weed flora, Weed index