

Evaluation of Broad Leaf Weed Herbicides on Weed Control and Productivity of Wheat (*Triticum Aestivum* L.)

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Abstract : -- A field experiment was conducted at Holetta research center and farmers fields during 2017 and 2018 to determine the effects of hauxifen-methyl + florasulam (QULEX 200 WG) on broadleaf weeds in wheat. The design was a Randomized Complete Block with three replications. The treatments were included hauxifen-Methyl + florasulam @ 25gm, 50gm and 75gm ha⁻¹, (King-D) 2, 4-D dimethyl amine @1.0 L ha⁻¹, 2, 4-Dichlorophenoxy acetic acid @1.0 L ha⁻¹ rate (standard check), farmers practice twice hand weeding (25-30 and 55-60) days after sowing and weedy check. Herbicides were applied with knapsack sprayer with a spray volume of 200 L ha⁻¹. The wheat variety "Denda" was sown at 20 cm spacing. The recommended rate of fertilizer was applied. Weed density and biomass were recorded at (25-30 and 55-60) days after sowing. The results revealed that post emergence application of hauxifen-methyl + florasulam @50gm ha⁻¹ had a significant (P<0.05) effect on *Guizotia scabra*, *Polygonum nepalense*, *Plantago lanceolata*, *Galinsoga parviflora*, *Sonchus* spp., *Galium spurium*, *Amaranthus hybridus*, *Raphanus raphanistrum* and *Medicago polymorpha* population. The magnitude ranged from two to four folds when comparing with weed densities recorded in the unweeded plot. The grain yield harvested from the untreated check plot was significantly lower than the rest treatments. The grain yield was improved by 17.3% over the standard check with better performance.

Keywords : broadleaf, grass, weeds, control

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