



RESEARCH PAPER

Effect of integrated weed management on groundnut (*Arachis hypogea*)

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Abstract : An experiment on integrated weed management in groundnut (*Arachis hypogea*) was conducted at Department of Agronomy during 2009-10. Ten treatments which included three herbicides viz., Pendimethalin, Quizolofop ethyl, Imazethapyr with mechanical weeding were studied in Randomized Block Design. Complete weed free condition recorded highest dry pod yield (1786 kg ha⁻¹). Pre-emergence application of Pendimethalin 1.0 kg a.i./ha followed by one hand weeding at 15 days after sowing, recorded 10.8 pods/plant as against 4.97 pods/plant and 60.0 nodule per plant as against 37.5 in unweeded control. Pre-emergence application of Pendimethalin @ 1.0 kg a.i./ha followed by post-emergence Imazethapyr @ 75 g a.i./ha at 15 days after sowing increased pod yield (1255 kg ha⁻¹), shelling % and 100 kernal weight. Application of Pendimethalin recorded increased soil fungal count 16.0X10⁴ cfu g⁻¹, soil actinomycetes count 15.67X10⁶ cfu g⁻¹ and soil bacterial count 20.33X10⁸ cfu g⁻¹ compared to unweeded control.

Key Words : Pre-emergence pendimethalin, Fungal count, Actinomycetes, Bacterial count, Pod yield, Hand weeding

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