RESEARCH ARTICLE

EFFECT OF DIFFERENT TILLAGE AND WEED MANAGEMENT PRACTICES ON GROWTH AND YIELD OF CHICKPEA (*CICER ARIETINUM* L.)

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Abstract: The field experiment was conducted at the JNKVV, Jabalpur (M.P.) during rabi seasons of 2013-14 and 2014-15 to study the different tillage and weed management methods on growth product and yield of chickpea. The experiment was laid out in split-plot design with three replications. Main plot treatment consisted of five tillage practices viz., T_1- Zero tillage, T_2- Reduced tillage, T_3- Conventional tillage, T_4-Broadcasting and T_5-Bed planting. There were four sub-plot treatments of weed management viz., W_1-Pendimethalin PE @ 1 kg ai./ha, W_2-Pendimethalin + Imazethapyr (Vellor) @ 1 kg ai./ha PE, W3- Oxyfluorfen @ 100 gai./ha PE, and W_4-Unweeded check. Chickpea var. JG14 was shown on 15 December in both the years in rows 30 cm. apart keeping a seed rate of 80 Kg./ha Amongst the tillage practices, conventional tillage and bed planting recorded maximum growth and yield attributes and grain yield of chickpea var. JG – 14 (12.03 to 13.02 q/ha). Amongst the herbicidal treatments, Pendimethalin + imazethapyr were found most effective in controlling existing weed- flora and recorded maximum growth, yield attributes and grain yield upto 13.09 q/ha.

Keywords: Chickpea, Growth, Management, Tillage, Weed

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