

## INFLUENCE OF INTERCROPPING, MOISTURE CONSERVATION PRACTICE AND P AND S LEVELS ON GROWTH, NODULATION AND YIELD OF CHICKPEA (*CICER ARIETINUM*L.) UNDER RAINFED CONDITION

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### ABSTRACT

A field experiment was conducted to study the effect of intercropping system, moisture conservation practices and P and S levels on nodulation and productivity of chickpea under rainfed condition on a sandy loam soil at Indian Agricultural Research Institute, New Delhi, during 2008-09 and 2009-10. The treatments comprised of 3 cropping systems (Ethiopian mustard sole, chickpea sole and Ethiopian mustard + Chickpea (1:4) and 2 moisture conservation practices including (control and FYM@ 5t/ha + organic mulch + kaolin 6% spray) as main plot and 5 fertility levels (control, 30 kg P<sub>2</sub>O<sub>5</sub>/ha, 30 kg P<sub>2</sub>O<sub>5</sub>/ha + 15 kg S/ha, 60 kg P<sub>2</sub>O<sub>5</sub>/ha and 60 kg P<sub>2</sub>O<sub>5</sub> + 30 kg S/ha) as sub-plot replicated thrice in a split-plot design. Sole chickpea gave significantly higher yield however, yield attributes and quality parameters were not influenced by intercropping system. P and S application influenced significantly the growth attributes, nodulation, leghaemoglobin content, nitrogenase activity, yield components and seed yield.