

## Evaluation of yield and nodulation in cowpea *Vigna unguiculata* (L.) Walp under two tillage systems in the agroecological conditions of the Maracaibo plain, Venezuela

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### Abstract

In order to evaluate the effect of two tillage systems on cowpea yield and nodulation, a trial was carried out on the "Ana Maria Campos" Experimental Farm, at The University del Zulia (San Francisco county, Zulia state, Venezuela). The farm is located in a dry tropical forest zone, with an average annual rainfall of 400-600 mm per year, an average temperature of 28°C and sandy-loamy soil with a pH between 5 and 6. A completely random statistical design was used with ten repetitions of two treatments, conventional tillage and non-tillage. Statistical analysis detected significant differences ( $p < 0.01$ ) in relation to pods/plant, seed weight (100 seeds), and effective nodules/plant. Both tillage systems were statistically similar in terms of seeds/pod, total yield (Kg/ha), nodules/plant and dry weight of nodules/plant. Under the no - tillage system, it is possible to obtain more profit per hectare.

**Key words:** *Vigna unguiculata* (L.) Walp, tillage system, nodulation, yielding.

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