

Field evaluation of drip irrigation system for small scale cucumber crop

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■ **ABSTRACT** : A commercial drip irrigation system was evaluated for small scale cucumber crop at college of Agricultural Engineering field irrigation laboratory, located at Bapatla, Guntur district, Andhra Pradesh state during February 2013 to April 2013. In the field study, an attempt was made to evaluate the performance of the irrigation system based on the uniformity distribution, wetting pattern, sphericity and root distribution. Emission uniformity was not acceptable range mainly due to clogging of few emitters. However, the statically uniformity and absolute uniformity were within the acceptable limits. It has been revealed that inline emitter used in the study, can wet horizontal distance up to 50 cm from the source, while the depth of wetting increased with the rate of application. The root distribution was observed to be confined mainly to 60 cm sphere and the optimum rate of water application under the prevailing conditions. The average sphericity of cucumber fruit was observed 0.96, which was 3.12% higher than flood irrigated crop.

■ **KEY WORDS** : Evaluation, Drip irrigation, Uniformity, Inline emitters

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