



# Clay Pot Irrigation: A Technique of Water Management and Saving in Arid Zone.

Arunabha Pal\*, Rahul Adhikary

Associate Professor, Department of Agricultural Chemistry and Soil Science, Centurion University of Technology and Management, Gajapati, Odisha, India

\*Corresponding Email: arunabha@cutm.ac.in

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## Abstract

Clay pot irrigation is an advance, but very effective irrigation technique used in many arid and semiarid regions. Among of all traditional irrigation systems, clay pot irrigation is one of the most important and well suitable for small area farmers in many country of the world. Water management using clay pot irrigation find a solution to looming water shortage and would assistance bring more un-irrigated area under the irrigation in the country. Clay pot irrigation involves burying an unglazed, porous clay pot next to a seedling. Water poured from pot slowly into the soil and provides water to the seedling's roots with a balanced supply of moisture. Clay pot irrigation uses water more effective than other systems because it delivers water directly to plant root zones, instead of to broader areas of the field.

**Keywords:** Clay pot irrigation, Irrigation management, Small land holding.

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Water is one of resources decisive for human consumption, agriculture irrigation and industrial growth. It is very important commodities for human being and economic development. Clay pot irrigation is chef, ecofriendly, and easy to use in field. Clay pot irrigation is very simple and not requires any hitch technology and maintenance. Ideal crop production for small land holding farmer (1-2 acres) and it is suitable for growing vegetables, fruits, flowers etc. It involves of a clay pot with lid fixed at the top of the pot, and buried in the soil (up to its neck) and filled with water according to requirement (Adhikary *et al.*, 2020 and Pal *et al.*, 2019, Pal *et al.*, 2020)

The natural pores in the pot provide water and water spread into the soil, maintain available moisture for crop growth and development. The water can be filled in the pot when required, thus maintaining a continuous supply of water to the plants (Umalaxmi *et al.*, 2017 and Adhikary *et al.*, 2020). While introduce

the clay pot irrigation in the soil, farmers should take care, the neck region of the pot is that positioned so that rainwater runoff or flood water does not enter into the clay pot. Otherwise fine sand particles will block the pores of the clay pot. The main benefit of the wick which is attached at the bottom of the pot is to increase the water penetration into the soil and to deliver the water directly to the plant roots. The movement of water from clay pot depends on the type of plant and soil, and climatic conditions of that region. When surrounding soil becomes moistened due to rain water, water will soak back inside the pot and filling it again. The system is self-regulating and water losses are minor. The number of clay pot

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