

THESIS

**ADOPTABILITY OF TRICKLE IRRIGATION SYSTEM  
FOR SMALL FARMERS IN PUNJAB**



Acc. No.  
7090

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(2006-PG-WRE-42)

For The Degree of

MASTER OF SCIENCE

IN

WATER RESOURCES ENGINEERING

CENTRE OF EXCELLENCE IN WATER RESOURCES ENGINEERING  
University of Engineering & Technology, Lahore

2010

## ABSTRACT

This study was conducted at two farms located in southern Punjab. Cotton and chilies were grown at one farm in district Lodhran while sugarcane was sown at the second farm in district Layyah. The main objective of this research was to analyze the parameters that would help the small farmers in adoption of trickle irrigation system.

The parameters studied and compared consisted of water saving, energy cost and return of investment (ROI) on trickle and conventional irrigation system. Water saving with drip irrigation was found to be 50% for cotton, 47% for sugarcane and 43% for chilies respectively. Energy saving calculated per hectare was 65% in cotton, 54.75% in sugarcane and 62.5% in case of chilies respectively.

Net income per hectare under trickle irrigation was found to be Rs. 58,911 for sugarcane, Rs. 29,451 for cotton and Rs. 175,745 in case of chilies in comparison to conventional irrigation, the same values under the later were Rs. 6969 in sugarcane, Rs. 121,907 in cotton and Rs. 121,907 for chilies respectively. Return on investment (ROI) calculated showed that after one year the system will return the incurred cost in case of sugarcane. Return on investment calculated for cotton was found to be 11.2 years and 2.8 years for chilies respectively.