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SYSTEM EVALUATION AND ANALYSIS
OF A TRICKLE IRRIGATION

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ABSTRACT

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This study was conducted at Rodriguez Farm in Paradahan, Tanza, Cavite from December 1989 to January 1990 to evaluate and analyze the trickle irrigation system.

The cost and return analysis of the system was obtained from the total input and output of the plantation. It was found out that the highest cost value was spent during the installation and initial operation of the system, while the highest total return was noted during the full maturity of the crops.

The analysis of the trickle system included the water source, pump, control head, piping system and drippers which comprised the whole system set-up.

Irrigation efficiency, water rate and time of irrigation were determined to evaluate and analyze the operation of the system. Routine operations were also conducted.

The temperature, rainfall, soil moisture content and amount of water delivered were the factors gathered and considered in the operation of the trickle system.

Constraints and limitations were observed in this study. These were gathered to determine the best

possible of citrus and guava on the total land area of the farm in order to obtain the maximum profit.

Easier management, reduction in labor, easier control of insects, pests and weeds, better use of poor soils, reduction of operating costs and utilization of lower discharges were noted to be the advantages in the operation of the trickle irrigation.

Mechanical and physical problems in the operation of the system such as sensitivity to clogging, salinity build-up, limited root development, power failure and fluctuation and atmospheric control were likewise detected.

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