

Economic Evaluation of Drip and Traditional Irrigation Systems in Strawberry Farms of Babolsar

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Abstract

The present study was done for economic evaluation of pressurized irrigation systems in strawberry fields of Babolsar Township during a 4-year period from 2011 to 2015. To do this, at first, 282 farms (170 traditional and 112 pressurized irrigation systems) were selected using proportional stratified sampling. The data related to costs and revenues of the sample farms was gathered over four years with cooperation of Regional Agricultural Office and farmers. Then, collected data was analyzed by Net Present Value (NPV), Benefit- Cost Ratio (BCR) and Internal Return Rate (IRR) indices. The results showed that the sample farms produced strawberry economically under both traditional and pressurized systems. However, NPV and IRR were greater in pressurized irrigation system than the traditional one. Based on the results, IRR was calculated to be 48 percent in pressurized system while it was 38 percent in traditional one. In addition, BCR was calculated to be 1.48 and 1.37 in pressurized and traditional systems, respectively. So, considering national and regional drought crisis, development of pressurized irrigation systems is strongly recommended in the country and the region in order to conserve water resources.

Keywords: Net Present Value, Benefit-Cost Ratio, Internal Rate of Return, Flood irrigation, Drip irrigation.

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