

Overcoming the Problems Affecting Drip Irrigation System through the Design of an Efficient Filtration and Flushing System

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Abstract : The drip irrigation system is one of the important areas that affect the livelihood of farmers directly. The use of drip irrigation system has been the most efficient system compared to the other types of irrigations systems because the drip irrigation helps to save water and increase the productivity of crops. But like any other system, it can be considered inefficient when the filters and the emitters get clogged while in operation. The efficiency of the entire system is reduced when the emitters are clogged and blocked. This consequently impact and affect the farm operations which may result in scarcity of farm products and increase the demand. This design work focuses on how to overcome some of the challenges affecting drip irrigation system through the design of an efficient filtration and flushing system.

Keywords : drip irrigation system, filters, soil texture, mechanical engineering design, analysis

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