

## Publications

### TR- 105

#### New Irrigation System Design for Maximizing Irrigation Efficiency and Increasing Rainfall Utilization

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- [Full Text](#)

A new concept in irrigation system design, which has the potential of significant savings in both water and energy requirements, has been developed and is under evaluation. The system is characterized by and has been labeled a low energy-precision application (LEPA) system, which rather than spraying water into the air at moderate to high pressures, distributes it directly to the furrow at very low pressure through drop tubes and orifice controlled emitters. This occurs as the system continuously moves through the field in a rectilinear fashion. The system is used in conjunction with micro-basin land preparation which also optimizes the utilization of rainfall. The combined system minimizes the effect of soil and climatic variables which adversely influence furrow and sprinkler irrigation efficiencies. Significant savings of both water and energy resources are indicated from results of the limited testing to date.

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