

Promotion of Chickpea Cultivation in rainfed of Punjab (Thal Desert) through life saving irrigation with high efficiency sprinkler irrigation system under changing climate

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PROMOTION OF GRAM CULTIVATION IN RAINFED AREAS OF PUNJAB (THAL) THROUGH LIFE SAVING IRRIGATION WITH SPRINKLER SYSTEM UNDER CHANGING CLIMATE

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ABSTRACT

Thal desert is a geographically arid area because rain fall is not sufficient to grow agricultural crops, forest and fruit plants and pastures. 90% area and production of chickpea is contributed by Thal. The production of this area is about 300 thousand tons while the requirement of chickpea is increasing day by day due to increase in population. This area lies under annual rainfall less than 300 mm, 80% of which concentrated in July-September. To meet the crop water requirement, supplemental irrigation is essential for crop production. Gram is the major crop of Thal zone which require very little moisture at critical growth stages. This objective is achievable by adoption of pressurized sprinkler irrigation system in the water scarcity areas of Thal zone. Application of the sprinkler irrigation system when there is no rain at right time in the required quantity in rainfed irrigation areas can enhance the production of gram crop to reduce pulse import bill. Sprinkler irrigation system holds the key to all these problems because it helps maximize efficiency and maintain a favorable growing environment for the crop. Hence they are recommended for sandy and undulating soils, topography. Thus, thousands of acres of land of Thal area which was previously facing prolong drought spell will be able to provide supplement irrigation at critical growth stages and in required quantity by sprinkler systems with higher yields. To sum up, the sprinkler system presents a ray of hope in safeguarding the agricultural economy of tail end arid zones.