

Thesis Title                    Crop Water Requirement and Water Irrigated in a  
Paddy Field : A Case Study in Saraburi Province

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Degree                         Master of Science (Appropriate Technology for  
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Date of Graduation            17 July B.E. 2535 (1992)

#### ABSTRACT

The aim of this study was to determine the relationship between crop water requirement and irrigated water from electrical pumping with the effort to establish a guideline for appropriate management in cultivated areas.

The cultivated area of the project was divided into three regions by distance from the station, to compare crop water requirement. The field survey was conducted to determine flow rate of the conveyance. The data of rice cultivation, rice yields and attitude of the farmers towards the project was collected by interviewing 98 farmers who planted rice in 1989. The duration of

irrigated water requirement was collected in both dry and rainy seasons. Crop water requirement was calculated through secondary data.

It was found that the three groups of studied area obtained excess irrigated water in both cultivated seasons. In dry season the farthest area requested 33% excess irrigated water whereas the middle and nearest areas requested less rate which were 15% and 10% respectively. On the contrary, the nearest area requested much irrigated water in rainy season which was 50% while the middle and farthest areas were 13% and 8% respectively which were closed to actual crop water requirement. When compared the average rice yields of the three groups of studied area, it was found that there was no difference among them in dry season. But in rainy season, the average rice yields of the nearest area was highest while those of the middle and farthest areas were equal.

The recommendations for this study were farmers should share more cooperation in maintenance canals so as to reduce water loss and base on crop water requirement at various growing period, schedule of irrigated water requirement should be reconsidered to reduce the expense of farmers.