

CASE STUDY ON YEAR ROUND CULTIVATION
IN MAHAWELI SYSTEM - B

By

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Thesis

Submitted in partial fulfilment of the requirements
for the degree of

MASTER OF PHILOSOPHY

in the

POSTGRADUATE INSTITUTE OF AGRICULTURE

of the

UNIVERSITY OF PERADENIYA

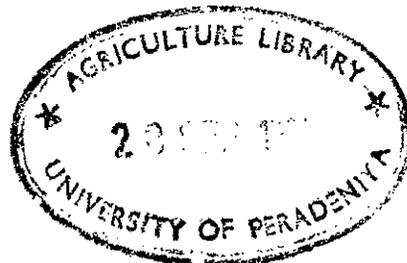
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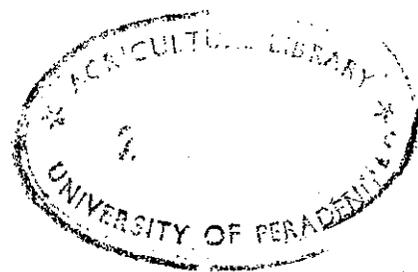
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November, 1997

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ABSTRACT



A research study was carried out to identify and examine the possibilities of cultivating different types of crop combinations on year round basis. In addition, it also attempts to evaluate the possibilities of issuing irrigation water to the farming areas and also to identify the economically viable crop combinations to farmers who own different levels of capital and labour.

This study was carried out at Mahadamana unit in System 'B' of Mahaweli project in 1991 Yala, 1992 Maha and 1992 Mid season. Nine farmers out of ten in the turn out 66 were involved in this study. Crops such as Paddy, Soya bean, Big onion, Red onion, Soya, Chilli, Cabbage, Tomato, Groundnut and Sunhemp were successfully grown in the trial area. Based on time of cultivation and agronomic feasibility different crop combinations were selected and planted in the field.

According to the results there was strong possibility of issuing water on year round basis provided that the wastage of water due to conveyance, distribution and handling losses were avoided. Data of 14 different crop combinations which were agronomically feasible was analysed using LP88 linear programming package for three levels of capital (Rs.60,000, Rs.90,000 and Rs.120,000) and variable labour.

Analysis showed that with the capital of Rs. 60,000 per annum it was not necessary to hire labour and farmers could get a reasonable return by cultivating different extents of crop sequences 4, 6 and 8. In the case of sequence 4, it recommends first to cultivate Soya followed by a vegetable such as Cabbage, and ends with another vegetable like Tomato. Similarly, Sequence 6 begins with Red onion, followed by Cabbage and last Tomato. In the case of sequence 8, Paddy followed by cash crops Chillie and Sunhemp,. It was revealed that with the increase of capital, hired labour was a necessity at different stages of cultivation. For capitals of Rs. 90,000 and Rs.120,000 different extents of sequence 6 and sequence 8 were in the optimal solution.

Statistical relationship between input parameters were also analysed. A significant correlation was observed between capital and labour when 120 days/month and 75 days /month of labour was used with the available capital.

