

STUDIES ON PRODUCTION POTENTIAL OF
CERTAIN VEGETABLE CROPS
IN MIXED CROPPING.

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SUMMARY

Fifteen day old seedlings of T-146 tomatoes were planted at a spacing of 80x50 cm, between two rows of tomatoes, two rows of bush-bean were established as one treatment and three rows of radish as another treatment. Tomato, radish and bush-bean mono cultivation plots were also grown for the purpose of comparison. Departmental recommendation of fertilizer for tomato was applied and no additional fertilizer to the second crop was given in mixed cropping plots. It was found that bush-bean and radish can be cultivated with tomato for better monetary returns.

MATERIALS AND METHODS

This experiment was carried out at CARI research fields in Yala 1981, Maha 1981/1982 and farmer's field at Marassana in Yala 1982.

Fifteen day old seedlings of variety T-146 were planted at a spacing of 80x50 cm. Two rows of bush-bean variety Top Crop were established between two rows of tomatoes in one treatment, three rows of radish variety Beeralu were established between two rows of tomatoes as another treatment. Tomato, radish and bush-bean mono. cultivation plots were also grown for the purpose of comparison. Department recommendation of fertilizer for tomato was applied and no additional fertilizer to the second crop was given to mixed cropped plots. When mono-cropping was practiced relevant Department fertilizer recommendations were used. Cultural practices such as irrigation, weeding were practiced in a uniform way.

Table 1. DETAILS OF TREATMENTS, ROOT DEPTH AND TIME OF HARVESTING.

Name of the Vegetable.	Variety used for Mono and mixed Crop Plots.	Spacing used	Fertilizer Application for Mono Crop			Root Depth	Time Taken to First Harvest
			N Kg/ha	P ₂ O ₅ Kg/ha	K ₂ O K/ha		
(1) Tomato	F-146	80x50 cm	160	127	76	15-25cm	60 days after planting.
(2) Beans	Top Crop	40x10 cm	148	134	89	1-10 cm	45 days after seedling
(3) Radish	Beeraju	20x10 cm	114	127	154	20-30 cm	45 days after seedling

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NOTE: Mixed cropping plots received only main crop (Tomato) fertilizer application.

Table II. CROP, YIELDS AND ECONOMICS OF MIXED CROPPING.

Name of the Vegetable	Tomato Yield KG/HA	Second Crop KG/HA	TOTAL INCOME RS/HA*
(1) Tomato	25773.90	-	77321.70
(2) Tomato + Bush bean	23476.90	5911.45	94076.50
(3) Tomato + Radish	22180.01	21078.55	98157.86
(4) Bush bean (Mono crop)	-	9796.10	38788.40
(5) Radish (Mono crop)	-	38914.30	58371.45

* Prices were assumed as (1) Tomato Rs.3/- Kg.
 (2) Bush bean Rs.4/- Kg.
 (3) Radish Rs.1.50 Kg.

