

SOCIO-ECONOMIC ANALYSIS

ECONOMIC INDEX	COCONUT	EGGPLANT	AMPALAYA	CABBAGE	TOTAL
Total Cost	P8,950	P24,144	P26,492	P8,999	P68,525
Yield (kg)	2,000	2,538	1,726	1,760	8,024
Gross Income	P30,000	P28,444	P27,642	P13,257	P99,343
Net Income	P21,050	P4,300	P1,150	P4,318	P30,818

Table 1. Economic analysis for coconut-vegetable cropping model

4. Use of organic fertilizer- ave. maintenance application of 5 tons/ha (0.50 kg/sq.m.) per cropping season applied few weeks before seeding or field planting as it improves soil organic matter, provides macro & micronutrients and as soil conditioner
5. Use greenhouses to protect vegetables against strong rain and insect pests
6. Boron fertilization for essential element for most vegetables, lacking in many Phil. soils, recommended for ampalaya & watermelon for fruit setting /pollination of flowers
7. Use of plastic mulch to secure vegetable production during rainy season, reduce weeding labor cost e.g. as in watermelon planting
8. Use of yellow greased billboard as repellent to insect pests.

*Source: Secretaria, M. I. and S.S. Magat, 2005. Coconut Intercropping Guide No. 4: Coconut-Vegetable Cropping Model. Produced by PCA-Research, Development, and Extension Branch (RDEB), Diliman, Quezon City, 25 p.

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Vegetable Intercropping Under Coconut Palms

Technology Description

Vegetable intercropping under coconut palms is one of the popular intercropping practices in rural areas for many good reasons. It requires short period of planting time, smaller area (vacant spaces between coconut), provides additional income to coconut farmers and nutritious food for farm communities.

Vegetable intercropping such as tomato, eggplant, sweet pepper, squash, okra, ginger, etc. is highly recommended under coconuts aged one to six years old or 26-60 years old. These vegetables can be intercropped in plots under the interrows of coconuts.

Benefits of coconut-vegetable cropping system:

- Vegetable crops can be planted anytime of the year. There is stable and continuous demand as it is consumed daily in everyone's dining table.
- Its nutritive value and health benefits are well-known.
- It intensifies land use which increases returns on cash inputs.
- Provides labor utilization pattern and income distribution.
- Alleviates poverty and improves food security in rural areas.

Procedure:

Land preparation-clear interspaces under coconut trees and remove all stumps, plow and harrow twice thrice to remove weeds. Secure area against animals and other hazards.

A. Solanaceous crops (tomato, eggplant, sweet pepper)

1. Nursery preparation – prepare seedbeds measuring 1 m x 5 m, sterilized soil by any of the following methods: a) burn straw over the seedbed b) pour boiling water into the seedbed c) bake or sterilize soil and place in seed boxes d) drill the seeds and cover lightly with soil e) water daily during dry period until ready for transplanting.
2. Plot preparation – prepare furrows 75 cm apart, 2.0 meters from the coconut trees.

3. Transplanting – water the seedbed thoroughly to loosen the soil, pull carefully the seedlings to avoid injury, transplant seedlings in prepared furrows, preferably in the afternoon.

4. Distance/System of planting:

- tomato - 0.75 m between hills, straight planting
- eggplant – 0.50 m bet. hills, zigzag planting
- sweet pepper – 0.75 m bet. hills, straight planting



5. Select any of the following recommended varieties (from EWSCI):

- Tomato – Diamante F1, Marimar F1, Maxima F, Improved Pope, Cardinal
- Eggplant – Domino F1, Casino F1, Jackpot F1, Bulakena, Batangas Long Purple
- Sweet pepper – Majesty F1, Bless F1, All Season, Trinity F1
- Hot pepper – Django F1, Sinigang, Hotshot

6. Maintenance – Off-bar(hilling-up of furrows) two weeks after transplanting, apply recommended fertilizers at different growth stages, apply pest/disease control measures.

7. Harvesting

- Tomato – harvest when 1) mature green as fruit starts to show cream streaks at the bottom end; 2) breaker-blossom end turns pinkish or reddish; 3) red ripe–full red skin color is attained.
- Eggplant–harvest when fruit reaches 2/3 of its maximum size for the variety before fruit hardens or shows streaks of unusual color
- Pepper – harvest as 1) mature green (fruit waxy and shiny); 2) breaker (fruit turns yellow or reddish); 3) red ripe (fruit skin is red)

B. Cucurbitae Crops (Ampalaya, patola, upo, cucumber, calabaza, watermelon, muskmelon)

1. Distance/System of planting

- Ampalaya – 1 m between hills x 2 rows distance at 3 m apart in between 2 rows of coconut trees, straight planting
- Cucumber – 0.50 m between hills x 3 rows at 1 m apart in between 2 rows of coconut trees
- Watermelon-1 m bet. hills x 3 m between rows, under open area between two coconut areas (3-5 m distance apart)

2. Recommended varieties (from EWSCI, Allied Botanical Corp.)

- Ampalaya – Galaxy F1, Jade Star L F1, Jade Star XL F1, Sta. Rita EW Select, Trident 357, Condor Poseidon F1, Condor Sta. Rita OP
- Cucumber – Ambassador F1, Governor F1, Champ F1, Green Beret F1, Jackson 27 F1, Poinsettia
- Patola – Hercules F1, Esmeralda
- Upo – Dalisay F1, Tambuli, Maxi
- Watermelon- Sweet Senorita, Sweet 16 F1, Sugar, Baby OP, Goody Ball F1

3. Method of planting – direct seeding is recommended for these vegetable crops (plant 1 seed per hill at 1-2 cm deep)

Some new technologies for a productive vegetable farming:

1. Use of trellises/trellising nets for better fruit quality & less disease occurrence (best for ampalaya, cucumber, tomato, upo, patola)



2. Drip irrigation and other practical irrigation systems improves yield and reduce labor
3. Use of seedling trays for better growth of vegetable seedlings