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Techno Guide on Coconut Intercropping No. 04/2019



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Coconut-Corn Intercropping

Corn, especially white varieties remains a staple food to a number of Filipinos especially in the Visayas. Likewise, there is a great demand of corn as livestock feeds in the country. Hence, corn planting is a popular and major agricultural activities.

Where there is a scarce land resource for planting corn, coconut lands offer a good opportunity for this purpose as the interspaces between rows of coconut can accommodate about 6 to 9 rows of corn depending on the planting distance of coconut (i.e. 8 x 8 to 10 x 10 m sq).

Corn is best intercropped when coconuts are young (1-5 years old and >10

CORN

LAND PREPARATION

- Plow the field once when soil moisture permits and harrow twice
- Make furrows at 0.75 m apart and 2.0 m away from base of coconut
- Practice conservation tillage using herbicide in appropriate areas

SELECTION OF PLANTING MATERIALS

- Use high yielding corn variety or hybrids with good quality seeds. Some of the varieties tested under coconut and their yields are: USM varieties (2.3-3.6 t/ha); IPBs (2-4 t/ha); SMC (2.8-3.6 t/ha) and Pioneers (3.7-4.0 t/ha).

PLANTING

- Plant 2 seeds per hill on furrows at a distance of 20 cm between hills or 5.0 hills/linear meter (about 30,000-48,000 plots/ha). This should be thinned to one plant per hill two weeks after germination

Fertilization

- Soil test is a very good basis for fertilizer program. However in its absence, basal fertilizer application: apply fertilizers in furrows at 3 bags/ha of 14-14-14 and cover with thin layer of soil before planting

MAINTENANCE

- Off-bar (plowshare away from furrows) on the 14th day after planting (DAP)
- Sidedress the remaining half of the fertilizer at two bags ammonium sulfate or one bag urea around 5-6 cm away from the corn plants just before hilling-up.
- Hill-up (plowshare towards the furrows) at 45 DAP to cover the fertilizer and to control weeds
- Monitor the plants for occurrence of pests (mostly corn borer) and diseases (downy mildew). Uproot and burn affected plants immediately. For pest infestation spray with any insecticide available
- Perform line weeding when necessary

HARVESTING

COCONUT

Separate fertilization for coconut is necessary to avoid competitions for nutrients. Fertilization can be broadcasted and forked-in according to

FERTILIZER RECOMMENDATION

Component Crop/Stage	NaCl Rate/tree (kg)	+ AS Rate/tree (kg)	or MNF Rate/tree (kg)
Nut-bearing Coconut:			
Year 1-10	1.70	1.50	3.00

the following rates (per tree):

SOCIO-ECONOMIC ANALYSIS

Profitability analysis revealed that coconut-corn cropping model is a beneficial investment. This

	Season 1	Season 2
Gross Returns	45,649.00	24,192.00
Production Cost	13,932.53	13,932.53
Net Returns	31,716.47	10,259.47

cropping model is more feasible at a higher market price.