

SOCIO-ECONOMIC ANALYSIS

Average Gross Income (1-5yrs)		Average Total Cost (1-5yrs)	Average Net Income (1-5yrs)	
lowest price (P 28.40)	highest price (P49.10)		lowest price (P 28.40)	highest price (P49.10)
288,452.33	498,445.63	85,635.63	202,816.70	412,809.99

Table 1. Cost and Return Analysis of Cocopeat fertilization for 5 years of coconut production

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**PHILIPPINE COCONUT AUTHORITY
DAVAO RESEARCH CENTER**

Bago Oshiro, Davao City 8000
Tel. No. (082) 293-0113
Fax No. (082) 293-0571
E-mail: pca.drc2015@gmail.com

For more information, call, write, or visit

**Agronomy, Soils and
Farming Systems Division**

Philippine Coconut Authority
Davao Research Center
Bago Oshiro, Tugbok District,
Davao City 8000
Tel. (082) 293 0161
E-mail: pcadrc.asd12@gmail.com



**Cocopeat
as Fertilizer for
Coconuts**

TECHNOLOGY DESCRIPTION

Cocopeat (also known as coconut coir dust, coir waste or fiber dust) consists of short spongy fibers and dust which is a by-product in the processing of husk to coir fiber and accounts 70% of husk weight.

Cocopeat retains water firmly, holding 8-9 times its weight and slowly releases water to the plant through its feeding roots.

A coconut farm producing 10,000 nuts/year has the potential of producing 3,600 kg of husks and 2,300 kg of coir dust, with a storage capacity of about 18,000 liters of water if incorporated in the soil. These conditions help minimize crop water deficit during the El Niño period.

Cocopeat is a very sustainable/renewable substitute of peat moss.

ADVANTAGES

- Peat applied as mulch or soil amendments for coconut during planting makes the crop tolerant to drought because of its high water-holding capacity, minimizing the depressive effect of drought on crop physiology and yield
- Creates favorable soil structure when applied as mulch
- Supplies some nutrients i.e. macronutrients (N, P, K, Ca, Mg, Cl, Na) and micronutrients (Zn, B, Fe, Mn, Cu) necessary for plant growth
- Provides good medium for nursery seednuts and seedling and hydroponics

PROCEDURE

1. Apply evenly the cocopeat within 1.5 m radius of the coconut palm.
2. Incorporate within the topsoil (0-6 in.) the following rate of cocopeat/palm annually.
 - 10 kg (in coastal areas)
 - 15 kg (in inland areas)
3. Apply also the recommended mineral fertilizer (ammonium sulfate) once a year at the start of rainy season within the 1.5m radius of rootzone of each palm

TABLE 1. NUTRIENTS SUPPLIED BY COCO PEAT (UNDER OPEN FIELD STORAGE)

Nutrient	New - 1 mo*	2-3 mos*	4-6 mos*	12 mos**	Ave.
Macro		percent	(%)		
N	.373	.398	.463	.605	.459
P	.072	.031	.055	.011	.042
K	2.724	1.283	1.746	1.548	1.83
Ca	.156	.377	.690	.260	.371
Mg	.126	.124	.133	.167	.138
Cl	1.536	.182	.383	.113	.554
S	.048	.050	.052	.104	.064
Na	.094	.318	.400	.215	.257
Micro		parts /	million	-ppm	
B	23.7	23.8	29.5	21.3	24.57
Zn	17.0	19.2	20.8	13.7	17.67
Mn	9.4	45.5	56.6	24.4	33.97
Cu	5.1	7.5	9.2	6.7	7.13
Fe	532.2	1,253	1,450	281.2	879.1

* At Davao City (inland)

** At Mauban, Quezon (coastal)

Source: Magat, S.S., R.M. Ebuna and M.I. Secretaria. 2002. Mid-term yield response (1996-2001) of coconut to the application of coconut coir dust or coco peat in coastal area (Mindanao, Phil.). Paper presented in the World Food Day Celebration, Lecture Series on Soil Conservation & Water Resources Management Technologies. Seminar for Future Soil Scientists. Oct.15, 2002. DA-BSWM, Diliman, Quezon City.