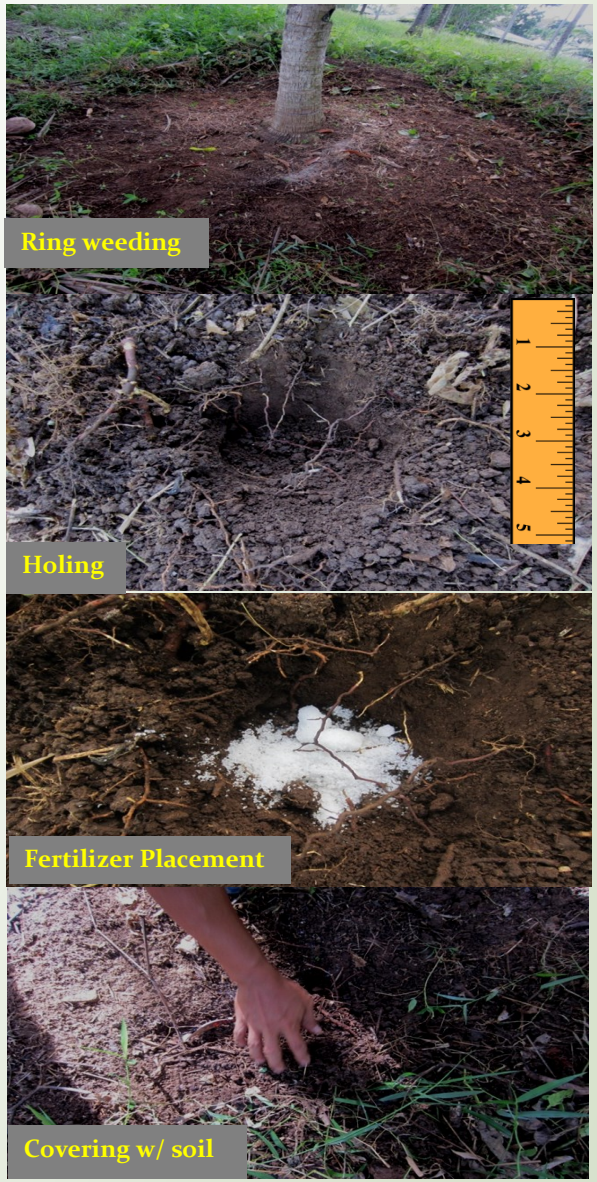
2. In hilly areas, hole placement is recommended. Fertilizers are placed in 8-10 equidistant holes, 5 cm deep around the base of the palms and covered with soil.



When to apply

- For areas with distinct wet and dry seasons, those with irregular rainfall distribution and with sandy soils, fertilizers are best applied every 6 months in split application ½ at the start of rainy season and ½ six months before the end of the rainy season).
- For areas with uniform rainfall distribution (1.5-3 dry months), fertilizers are applied in split during the 1st year and once annually thereafter

References:

Magat, et. al., 1983. Mineral nutrition survey of coconut areas in the Philippines. 2. Soil characteristics and coconut yield. Annual Report 1983.

Magat, et. al., 1982. Nitrogen-Magnesium-Chloride fertilization of coconuts grown under inland-upland areas of Davao. Annual Report 1982.

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Inorganic Fertilization for Coconut

Why Fertilize Coconuts

PCA surveys indicated that there are ten distinct classes of coconut nutritional deficiency in the Philippines. Coconut areas maybe deficient in N, P, K, Cl, S and Mg but most provinces in the country fall under N-Cl deficiency.

Judicious application of fertilizers increases nut and copra yield by as much as 230%. A study in Davao City showed that with fertilizer application, a coconut farmer can realize a net income of about 180% compared to without fertilization.

Mineral Nutrition

In the absence of soil and leaf analysis of an area/farm, the following fertilizer recommendation provides the coconut at its different growth stages and production with four most needed nutrients (N, K, Cl, S) in many coconut areas in the country (Table 1, 2 and 3).

Table 1. Fertilizer rates for seedlings

Age (mos.)	Ammonium sulfate ($\{NH_4\}_2SO_4$) 21-0-0	+	Potassium chloride (KCl) 0- 0-60	or	Common Salt (NaCl)
	(g/seedling)				
2	20		25		20
5	40		45		60

Table 2. Fertilizer rates (per tree) for palms in coastal areas (within 2 km from coastline)

Palm age	Ammonium sulfate ($\{NH_4\}_2SO_4$) 21-0-0	+	Potassium chloride (KCl) 0-0-60	or	Common Salt (NaCl)
Field Planting	150 g		100 g		80 g
6 mos.	200 g		150 g		120 g
1 year	500 g		500 g		400 g
2year	750 g		750 g		600 g
3 year	1.0 kg		1.0 kg		800 g
4 year	1.25 kg		1.25 kg		1.00 kg
5 year or more	1.50 kg		1.50 kg		1.20 kg

*In K-deficient soil, use KCl and not NaCl

Table 3. Fertilizer rates per tree for palms under Inland areas (more than 2 km from coastline)

Palm age	Ammonium sulfate (NH_4SO_2) 21-0-0	+	Potassium chloride (KCl) 0-0-60	or	Common Salt (NaCl)
Field Planting	150 g		200 g		160 g
6 mos.	200 g		50 g		200 g
1 year	500 g		600 g		480 g
2year	750 g		900 g		720 g
3 year	1.0 kg		1.5 kg		1.25 kg
4 year	1.25 kg		1.70 kg		1.35 kg
5 year or more	1.50 kg		2.00 kg		1.70 kg

*In K-deficient soil, use KCl and not NaCl

How to apply

Fertilizers may be applied in two ways:

1. In flat areas, it could be broadcasted in the ring weeded area (about 1.0 to 1.5 m radius) around the base of the palm followed by fork-in to incorporate the fertilizer into the soil.