

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.



Fig. 4. Ring Weeding



Fig. 5. Holing



Fig. 6. Fertilizer placement



Fig. 7. Covering 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  $\frac{1}{2}$  at the start of rainy season and  $\frac{1}{2}$  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 1<sup>st</sup> year and once annually thereafter.

### References:

- Eroy, M. N., R.Z. Margate and R.M. Ebuña. 1990. Nutrient depletion in coconut soils thru harvest of mature nut.
- Padrones, G. D. et.al. 1995. Response of coconut to recycling of coconut crown residues and cir-



### Techno Guide on Fertilization No. 01/2019



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## Fertilization Guide for Coconuts

## 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.

## What Fertilizers to Apply:

In the absence of soil & 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. Fertilizer rates for seedlings**

Age (mos.)	Ammonium sulfate (NH <sub>4</sub> SO <sub>2</sub> )	Potassium chloride (KCl)	or	Common Salt (NaCl)
	21-0-0	0-0-60		
(g/seedling)				
2	20	25		20
5	40	45		60

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

Palm	Ammonium sulfate (NH <sub>4</sub> SO <sub>2</sub> )	Potassium chloride (KCl)	or	Common Salt (NaCl)
	21-0-0	0-0-60		
FP	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	Ammonium sulfate (NH <sub>4</sub> SO <sub>2</sub> )	Potassium chloride (KCl)	or	Common Salt (NaCl)
	21-0-0	0-0-60		
FP	150 g	200 g		160 g
6 mos.	200 g	250 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

## Organic Fertilizers:

Green manure like ipil-ipil and farm organic wastes such as manures of cattle, carabao, pig, goat, chicken, compost and night soil can be used to replace part of the commercial fertilizer requirements. Coconut crown residues as organic fertilizer and nitrogen fixing legumes (*Flemingia* and *Desmodium rensonii*) can substitute for AS as N-sources while co-peat and husk for chlorine.

## How To Apply:

Fertilizer maybe 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



Fig. 1. Ring weeding



Fig. 2. Broadcasting

palm fol-  
fork-in  
porate  
tilizer  
soil.



Fig. 3. Fork-in

lowed by  
to incor-  
the fer-  
into the