

# Ecoquad Sdn Bhd

Cost Comparison Analysis Between Chemical Fertilizers and BIOBOOSTER

Application Cost of using Chemical Fertiliser on New Planting aged < 3 years....Kg/Tree/Year

(Small Holder Oil Palm Handbook 2016 akvopedia.org)

Type of Fertilizer	Kg/tree/year	Kg/ha/year (124 pkk)	RM/Kg	Total Cost (RM)
Urea	1.3	161.20	1.00	161.20
TSP	1.2	148.8	1.40	208.32
MOP	2.5	297.60	1.60	475.20
Kieserite	1.4	173.60	1.25	217.00
Fertilizer Cost/ha/year				1061.72
Fertilizer Cost/tree/year				8.56
Labour/tree/year				0.70
Cost/tree/year				9.26

\*Applied TWO times a year.

Application Cost of using Chemical Fertiliser on Non Yielding Plants aged 3-9 years....Kg/Tree/Year

Type of Fertilizer	Kg/Tree/Year	Kg/Ha/Year	RM/Kg	Total Cost (RM)
Urea	1.75	217	1.00	217
TSP	1.5	186	1.40	260.40
MOP	3.0	279	1.60	446.40
Kieserite	1.0	124	1.25	155.00
Fertilizer Cost/ha/year				1078.80
Fertilizer Cost/Tree/Year				8.70
Labour/tree/year				0.70
Cost/tree/year				9.40

\*Applied TWO times a year

Application Cost of using Chemical Fertiliser on Fruiting Trees > 9 years....Kg/Tree/Year

Type of Fertilizer	Kg/Tree/ Year	Kg/Ha/ Year	RM/Kg	Total Cost (RM)
Urea	2.75	341	1.00	341
TSP	1.8	223.20	1.40	312.48
MOP	2.25	279	1.60	446.40
Kieserite	1.5	186	1.25	232.50
Fertilizer Cost/ha/Year				1332.38
Fertilizer Cost/Tree/Year				10.75
labour/tree/year				0.70
Cost/tree /year				11.45

\*Applied TWO times a year

Cost of applying Biobooster for Non  
Yielding Plants  
Young Palm  
Age < 6 tahun  
Applied TWO times a year

<u>Item</u>	<u>Dosage</u>	<u>Description</u>
1. Spraying Mixture	1:300 66cc: 20 litre water	- 1cc Biobooster in 300cc of water - Concentration of 0.33%
2. Frequency	180 days	- 2 times a year
3. Volume	1.4 litre/tree	- 10 trees with 20 litres of water - foliar, roots and soil surrounding the tree

Cost (not including high pressure spraying device)

Material:  $66\text{cc} \times 0.34\text{sen/cc} = 22.44$       Cost/Tree/Aplication =  $22.44/10$

=RM 2.24

Cost of material /tree/year =  $2.24 \times 2$  Application

= RM 4.48

Labour cost/tree/year = 0.70sen/tree/year

Cost/Tree/Year =  $4.48 + 0.70$  (RM2.59/per application)

Cost/tree/year = RM5.18

Cost Of Application Of BIOBOOSTER FOR FRUITING TREES

Mature Palm >6 years

Applied TWO times a year

<u>Item</u>	<u>Dosage</u>	<u>Description</u>
1. Spraying Mixture	1:250 80cc: 20 litre of water	- 1cc Biobooster in 250cc water - Concentration of 0.4%
2. Frequency	180 days	- 2 times a year
3. Volume	2.0 litre/tree	- 10 trees with 20 litre of water - Foliar, roots and soil surrounding the tree

Cost (not including high pressure spraying device)

Material:  $80\text{cc} \times 0.34\text{sen/cc} = 27.2\text{....}$  Cost/Tree/Application =  $27.20/10$  trees

=RM2.72

Cost of Material /tree/year =  $2.72 \times 2$  applications

= 5.44

Labour/tree/year = 0.70sen/tree/year

Cost/tree/year = RM 6.14 (or RM 3.07/tree/application)

Cost Comparison/ha/year - Malaysia

Item	Fertilizer		Percentage of Cost-Saving
	Biobooster	Kimia	
Cost of Material (RM)			
1. TBM (Sawit Remaja)	555.72	1061.72	
2. TBM (Sawit Muda)	555.72	1078.80	
3. TBM (Sawit Matang)	674.56	1332.38	
Biaya Tenaga Kerja (RM)			
1. TBM (Sawit Remaja)	86.80	86.80	
2. TBM (Sawit Muda)	86.80	86.80	
3. TBM (Sawit Matang)	86.80	86.80	
Total Cost/ha/year (RM)			
1. TBM (Sawit Remaja)	642.52	1143.52	44%
2. TBM (Sawit Muda)	642.52	1165.60	45%
3. TBM (Sawit Matang)	760.80	1419.18	46%

**TBM : Tanaman Belum Menghasilkan**

**TB : Tanaman Baru**

**TM : Tanaman Menghasilkan**