

### Appendix 9 Oilpalm Replacement Value

CROP YEAR	0-3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25		
Cost of establishment	480																								
Amortisation of est cost (22 Yrs)	0	21.81	21.81	21.81	21.81	21.81	21.81	21.81	21.81	21.81	21.81	21.81	21.81	21.81	21.81	21.81	21.81	21.81	21.81	21.81	21.81	21.81	21.81	21.81	
Net Amortised Establishment Cost	480	480	458.2	436.4	414.6	392.8	371	349.1	327.3	305.5	283.7	261.9	240.1	218.3	196.5	174.7	152.9	131	109.2	87.42	65.6	43.8	21.9		
Direct cost of production		103.4	109.6	117	121.3	127.5	135.1	131.4	132.7	132.7	132.7	133.3	133.3	133.3	133.3	133.3	133.3	133.3	135.1	135.1	135	135	135		
Total production cost		125.2	131.4	138.8	143.1	149.3	156.9	153.2	154.5	154.5	154.5	155.1	155.1	155.1	155.1	155.1	155.1	155.1	157	157	157	157	157		
Production per Acre (in mts)		0.2	1.2	2.4	4	5	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2		
Total revenue/acre (\$500/ton of produce)		11.76	70.59	141.2	235.3	294	305.9	305.9	305.9	305.9	305.9	305.9	305.9	305.9	305.9	305.9	305.9	305.9	305.9	305.9	305.9	306	306	306	
Profit Margin		-113	-60.8	2.37	92.18	144.7	149	152.7	151.4	151.4	151.4	150.8	150.8	150.8	150.8	150.8	150.8	150.8	148.9	148.9	149	149	149		
Terminal Value													211.8	211.8	211.8	211.8	211.8	211.8	352.8	352.8	353	353	353		
Net present value (at 32% BOG int rate)				0.1	0.61	1.28	1.84	2.35	3.08	4.07	5.37	7.09	9.36	12.36	16.31	21.52	28.41	37.5	50.18	64.28	84.9	112			
<b>Replcemen Value</b>	<b>480</b>	<b>470</b>	<b>507</b>	<b>556</b>	<b>629</b>	<b>666</b>	<b>657</b>	<b>636</b>	<b>614</b>	<b>594</b>	<b>573</b>	<b>553</b>	<b>745.3</b>	<b>727</b>	<b>709</b>	<b>692</b>	<b>677</b>	<b>664</b>	<b>796</b>	<b>789</b>	<b>787</b>	<b>793</b>	<b>659</b>		

### Appendix 10 Cocoa Replacement Value

CROP YEAR	0-3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Establishment cost	398.4																												
Amortisation of est cost (27 years)		14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.76	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
Net amortised establishment cost	398	384	369	354	339	325	310	295	280	266	251	236.1	221	207	192	177	162	148	133	118	103	88.5	73.8	59	44.2	29.5	14.7		
Direct production cost		121	122	136	156	158	165	178	181	181	181	181	184.7	181	181	181	181	185	181	181	181	181	181	181	181	181	181	181	181
Total production cost		136	137	151	171	172	179	192	196	196	196	196	196	195.9	196	196	196	196	196	196	196	196	196	196	196	196	196	196	
Production per acre (yield) bags		1	2	4	6	7	8	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	
Revenue per acre		62.4	125	249	374	436	499	561	624	624	624	624	623.5	624	624	624	624	624	624	624	624	624	624	624	624	624	624	624	
Profit margin		(-73.5)	(-12.4)	98.2	203	264	319	369	428	428	428	428	427.6	428	428	428	428	428	428	428	428	428	428	428	428	428	428	428	
Net present value at 32% BOG Int Rate				0.13	0.34	0.58	0.93	1.44	2.18	2.91	3.81	5.05	6.63	8.72	11.6	15.2	20.2	26.5	35.2	46.4	61.2	80.8	107	141	186	245	324		
<b>Replacement Value</b>	<b>398.4</b>	<b>519</b>	<b>506</b>	<b>604</b>	<b>714</b>	<b>762</b>	<b>810</b>	<b>858</b>	<b>906</b>	<b>892</b>	<b>878</b>	<b>865</b>	<b>855</b>	<b>839</b>	<b>827</b>	<b>816</b>	<b>806</b>	<b>801</b>	<b>791</b>	<b>788</b>	<b>788</b>	<b>793</b>	<b>804</b>	<b>827</b>	<b>854</b>	<b>898</b>	<b>962</b>	<b>623</b>	

### Appendix 11 Coconut Replacement Value

CROP YEAR	7-Jan	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Est and Gestation Period cost	614.3	614																	
Amortisation of est cost (25 YR)		36.1	36.1	36.1	36.1	36.1	36.1	36.1	36.1	36.1	36.1	36.1	36.14	36.1	36.1	36.1	36.1	36.1	36.1
Net amortised establishment cost	614	578	542	506	470	434	398	361	325	289	253	216.8	181	145	108	72.3	36.1	-0.03	
Direct production cost		73.5	71.8	72.9	72.9	78.2	74.7	74.7	74.7	83.5	80	83.5	83.52	87.1	83.5	83.5	87.1	83.5	87.1
Total production cost		110	108	109	109	114	111	111	111	120	116	120	119.7	123	120	120	123	120	123
Production per acre (fruits)		640	1920	2560	3200	3840	3840	3840	3840	3840	3840	3840	3840	3840	3840	3840	3840	3520	3520
Revenue per acre		22.6	67.8	90.4	113	136	136	136	136	136	136	136	135.6	136	136	136	136	124	124
Profit margin		-87.1	-40.1	-18.7	3.87	21.2	24.8	24.8	24.8	15.9	19.5	15.9	15.92	12.4	15.9	15.9	12.4	4.57	1.05
Net present Value				0.35	0.92	1.18	2.37	3.05	4.03	5.01	6.61	8.19	10.81	14.3	18.9	24.9	32.8	34.8	45.9
<b>Replacement Value</b>	<b>614.3</b>	<b>688</b>	<b>654</b>	<b>597</b>	<b>584</b>	<b>570</b>	<b>535</b>	<b>500</b>	<b>465</b>	<b>430</b>	<b>395</b>	<b>361</b>	<b>327.1</b>	<b>294</b>	<b>263</b>	<b>233</b>	<b>205</b>	<b>159</b>	<b>134</b>

**Appendix 12 : Oilpalm crop budget per Acre(\$)**

Crop Year	1 to 3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
Cost of Est & gestation period	480																							
Weeding 3x		42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.35	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4
Path cleaning		21.2	21.2	21.2	15.9	15.9	15.9	10.6	10.6	10.6	10.6	10.6	10.58	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6
Prunning		1.76	1.76	1.76	1.76	1.76	1.76	3.53	4.71	4.71	4.71	5.29	5.29	5.29	5.29	5.29	5.29	5.29	5.29	7.06	7.06	7.06	7.06	7.06
Fertilizer application		8.47	8.47	8.47	8.47	8.47	8.47	8.47	8.47	8.47	8.47	8.47	8.47	8.47	8.47	8.47	8.47	8.47	8.47	8.47	8.47	8.47	8.47	8.47
Disease monitoring and control		23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.53	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
Harvesting (\$5.90 per tonne)		1.18	7.09	14.1	23.5	29.4	36.7	36.7	36.7	36.7	36.7	36.7	36.71	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7
Equipment (5% of other crops)		4.92	5.22	5.57	5.78	6.07	6.44	6.26	6.32	6.32	6.32	6.35	6.347	6.35	6.35	6.35	6.35	6.35	6.35	6.44	6.44	6.44	6.44	6.44
Direct cost per acre	480	103	110	117	121	127	135	131	133	133	133	133	133.3	133	133	133	133	133	135	135	135	135	135	135
Production per acre		0.02	1.2	2.4	4	5	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
Revenue( \$58.82 per tonne)		11.8	70.6	141	235	294	306	306	306	306	306	306	305.9	306	306	306	306	306	306	306	306	306	306	306
Profit margin	-480	-91.6	-39	24.2	114	167	171	174	173	173	173	173	172.6	173	173	173	173	173	171	171	171	171	171	171

**Appendix 13: Cocoa Crop Budget per Acre (\$)**

Crop Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Bush Brushing	14.12																													
Tree Felling	28.24																													
Burning thrash	1.76																													
Lining and Pegging (3 md)	5.29																													
Transplanting (5 md)	8.82																													
Seedlings (60)	6.14	1.59	1.59																											
Fertilizer Application (1 md)	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76
Fertilizers	35.29	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.29	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3
Weeding 3x	42.35	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.35	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4
Monitoring & Control of Diseases	23.53	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.53	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
Thining/Prunning/Filling	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76
Harvesting and Processing (\$7.06/bag)				7.05	14.1	28.2	42.4	49.4	56.5	63.5	70.6	70.6	70.58	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6
Equipment	9.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53
Direct Cost of Production	178.6	110	110	121	122	136	156	158	165	178	181	181	181.2	181	185	181	181	181	181	181	181	181	181	181	181	181	181	181	181	181
Production per Acre				1	2	4	6	7	8	9	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Revenue				62.4	125	249	374	437	499	581	624	624	623.5	624	624	624	624	624	624	624	624	624	624	624	624	624	624	624	624	624
Profit Margin	178.6	110	110	-58.8	2.36	113	218	279	334	404	442	442	442.4	442	439	442	442	442	442	442	439	442	442	442	442	442	442	442	442	

**Appendix 14 Coconut Crop Budget Per Acre (\$)**

Crop Year	1	2 to 7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
Bush Brushing	14.12																				
Tree Felling	28.24																				
Burning thrash	1.76																				
Lining and Pegging (3 md)	5.29																				
Transplanting (6 md)	10.59																				
Planting Mat's (64 seedlings @ \$0.94)	60.24																				
Disease Control	23.53	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.53	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
Weeding 3x a year	42.35	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.35	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4
Harveting	1.76	1.76	3.53	3.53	3.53	5.29	7.06	7.06	10.6	10.6	14.12	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	17.7	17.7
Equipment	11.76	3.52	5.88	3.52	3.52	3.52	7.06	3.52	3.52	3.52	7.06	3.52	3.52	3.52	7.06	3.52	3.52	7.06	7.03.5	3.52	
Total Direct Cost	197.9	416	73.5	71.2	72.9	72.9	78.2	74.7	76.5	76.5	83.5	80	83.52	83.5	87.1	83.5	83.5	87.1	83.5	87.1	
Production per Acre			640	1920	2560	3200	3840	3840	3840	3840	3840	3840	3840	3840	3840	3840	3840	3840	3840	3520	3520
Revenue			22.4	67.2	89.6	112	134	134	134	134	134	134	134.4	134	134	134	134	134	134	123	123

Profit Margin

-51.1 -3.96 16.7 39.1 56.2 59.7 57.9 57.9 50.9 54.4 50.88 50.9 47.3 50.9 50.9 47.3 39.7 36.2