



LAND BANK
We stand by you



FRUITS EB
ENTERPRISE
BUDGET
DIGITAL BOOK

2025/26

1. Apple: Irrigation Production Year 1.....	4
2. Blueberry: Irrigation Production Year 1- 8	6
3. Citrus (Lemon): Irrigation Production Year 1-7	22
4. Macadamia Production Year 1-20	36
5. Mangoes: Irrigation Production Year 1-5	51
6. Citrus (Navel): Irrigation Production Year 1-7	58
7. Peacan nuts: Irrigation Production	72
8. Table grapes: Irrigation Production	75
9. Wine grapes: Irrigation Production	86
10. Watermelon Open Field Production	93

Fruits Enterprise Budgets

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I. APPLES

APPLE PRODUCTION YEAR 2025/26

	Establishment	Non-Bearing	Bearing
YIELD (TON/HA)			65,0
NUMBER OF TREES PER HA	1667,0	1667,0	1667,0
Price per ton (Fresh Produce Fruit)	25%		8500,00
Price per ton (EXPORT Produce Fruit)	55%		14 400,00
Price per ton (PROCESSING Produce Fruit)	20%		1890,00
Income/ Market line (Fresh Produce Fruit)			138 125,00
Income/ Market line (EXPORT Produce Fruit)			514 800,00
Income/ Market line (PROCESSING Produce Fruit)			24 570,00
Gross income			677 495,00
Direct Allocated Variable costs (R/ha)			
Pre Harvest Costs	532 462,00	64 218,00	149 880,00
Plant Material	170 603,00	3412,00	-
Land Clearing & Soil Mapping	61 704,00		
Land Preparation & Ridging	73 849,00	-	-
Irrigation (Design & Material)	64 623,00	-	-
Drainage	46 253,00	-	-
Trellising	66 755,00	-	-
Fertilizer	12 025,00	28 144,00	31 406,00
Herbicides	3267,00	3267,00	3267,00
Pesticides	490,00	5296,00	20 789,00
Fungicides	1320,00	2279,00	12 659,00
Rest Breaking Agents / Growth Regulators	-	241,00	1602,00
Consultants	1681,00	1681,00	1681,00
Seasonal Labour	17 541,00	4850,00	35 747,00
Fuel (Diesel)	2941,00	3650,00	13 022,00
Repairs & Maintenance	3096,00	2843,00	13 710,00
Electricity	4067,00	8133,00	12 325,00
General	2247,00	422,00	422,00
Pollination	-	-	3250,00
Harvest & Post Harvest Costs	-	-	377 165,00
Transport Rental	-	-	37 499,00
Packaging	-	-	300 990,00
Seasonal Labour	-	-	35 854,00
Fuel (Diesel)	-	-	1961,00
Repairs & Maintenance	-	-	861,00
Overhead Costs	132 988,00	106 121,00	132 676,00
Fixed Labour	32 269,00	32 269,00	32 269,00
Water Costs	2192,00	2 192,00	2192,00
Other Overheads	41 287,00	41 287,00	41 287,00
Interest on Loans	30 617,00	3750,00	30 305,00
Depreciation on Orchard	26 623,00	26 623,00	26 623,00
Total Costs	665 450,00	170 339,00	659 721,00
Gross Margin			17 774,00



BEARING APPLE	
Price/ ton	R8500,00
Quantity (ton/ha)	65,00
Gross income	R677 495,00
Costs	R659 721,00
Gross margin	R17 774,00

SENSITIVITY ANALYSIS (APRICOT)					
YIELD (ton/ha)	PRICE (R/ton)				
YIELD CHANGE AT 10% INCREMENTS	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
17 774,00	R7 650,00	R8075,00	R8500,00	R8925,00	R9350,00
52,00	R17 774,00	R17 774,00	R17 774,00	R17 774,00	R17 774,00
58,50	R17 774,00	R17 774,00	R17 774,00	R17 774,00	R17 774,00
65,00	R17 774,00	R17 774,00	R17 774,00	R17 774,00	R17 774,00
71,50	R17 774,00	R17 774,00	R17 774,00	R17 774,00	R17 774,00
78,00	R17 774,00	R17 774,00	R17 774,00	R17 774,00	R17 774,00
BREAKEVEN YIELD (ton/ha)	86,24	81,70	77,61	73,92	70,56

2. BLUEBERRY

Blueberry Irrigation Production: Year 1 (Establishment)					
	Unit	Price Per Unit	Quantity	Per Ha	Value Per Yield Unit
GROSS INCOME			3470,00	190 850,00	55,00
Product Income					
Blueberry- Fresh market	Kg	R55,00	3470,00	190 850,00	55,00
MARKETING COSTS (12,5% FRESH PRODUCE MARKET FEES)		12,5%	3470,00	23 856,25	6,88
GROSS INCOME minus MARKETING COSTS				166 993,75	48,13
TOTAL ALLOCATABLE VARIABLE COSTS				584 439,13	168,43
DIRECTLY ALLOCATABLE VARIABLE COSTS				563 847,42	162,49
A) PRE-HARVEST COST					
PLANTING MATERIAL				361 350,00	104,14
Blueberry Tree	Tree	82,50	4380,00	361 350,00	104,14
FERTILISER				27 522,98	7,93
Fertilisers/Fertigation	Ha	27 522,98	1,00	27 522,98	7,93
Turbo-31 10:1:5	Ton	12 834,20	0,00	0,00	0,00
Single Super Phosphate 10.5%	Ton	12 854,70	0,00	0,00	0,00
Maxiphos 20	Ton	19 117,14	0,00	0,00	0,00
Urea HB Granular 46%	Ton	12 968,32	0,00	0,00	0,00
KCL	Ton	17 353,50	0,00	0,00	0,00
Lime Ammonium Nitrate (28)	Ton	14 822,58	0,00	0,00	0,00
CHEMICAL CONTROL				26 257,61	7,57
Pest/Insects/Fungus	Ha	26 257,61	1,00	26 257,61	7,57
Spinetoram 250 WG	Kg	7 955,21	0,00	0,00	0,00
Lamda-cyhalothrin	L	152,40	0,00	0,00	0,00
Alpha-cypermethrin	L	835,02	0,00	0,00	0,00
HERBICIDES				0,00	0,00
Paraquat 200SL	L	103,63	0,00	0,00	0,00
Glyphosate	L	145,85	0,00	0,00	0,00
FUNGICIDES				0,00	0,00
Copper Oxychloride	Kg	167,64	0,00	0,00	0,00
Propiconazole 250 EC	L	397,76	0,00	0,00	
CROP MANIPULATION				9 440,00	2,72
Pollination	Hive	1 180,00	8,00	9 440,00	2,72
CASUAL LABOUR				90 481,21	26,08
Casual Labour Planting/Day	R/Manday	259,11	80,00	20 728,80	5,97
Casual labour Weeding/day	R/Manday	259,11	41,00	10 623,51	3,06
Casual labour Pruning/day	R/Manhour	28,79	180,00	5 182,20	1,49
Casual labour Harvesting/day	R/Manday	259,11	208,20	53 946,70	15,55
TRELLISSING/ NETTING STRUCTURE				0,00	0,00
Pine poles 3.6m (80-99mm) (Class 3)	Each	230,75	0,00	0,00	0,00
Wire (4mm)	500m	1399,00	0,00	0,00	0,00
Wire Round 2mm (2000m)	50KG	1470,00	0,00	0,00	0,00
PPC Cement	50KG	115,00	0,00	0,00	0,00

Nails 3 inches	kg	28,00	0,00	0,00	0,00
Stone 19 mm	40KG	29,00	0,00	0,00	0,00
Sand	40KG	29,00	0,00	0,00	0,00
Staples pre-pack 32mm x 2.50mm (25 x 1kg)	Kg	47,50	0,00	0,00	0,00
Shade net	R/Ha	178 000,00	0,00	0,00	
IRRIGATION & ELECTRICITY				17 565,62	5,06
Irrigation installation	R/Ha	49 500,00	0,00	0,00	0,00
Electricity cost	Ha	17 565,62	1,00	17 565,62	5,06
CONTRACT WORK				31 230,00	9,00
Transport produce	Kg	6,60	3470,00	22 902,00	6,60
Transport on farm	Kg	2,40	3470,00	8328,00	2,40
GROSS MARGIN ABOVE DIRECTLY ALLOCATABLE VARIABLE COSTS					-114,37
			941,12		
INDIRECTLY ALLOCATABLE VARIABLE COSTS				20 591,71	5,93
B) PRE-HARVEST COST				20 591,71	5,93
Fuel	L	21,88	941	20 591,71	5,93
Repairs & Maintenance				0,00	0,00
C) HARVEST COSTS				0,00	0,00
Fuel	L	21,88		0,00	0,00
Repairs & Maintenance				0,00	0,00
GROSS MARGIN ABOVE TOTAL ALLOCATABLE VARIABLE COSTS					-120,30

NOTES:

1. Growing period of Crop (Months)	12
2. Growing medium	Soil
3. Plant population	4380
4. Plant mortality	1%
5. Price per plant	R82,50
6. Plant spacing	0.91m/2.5m

PARAMETRIC BUDGETING

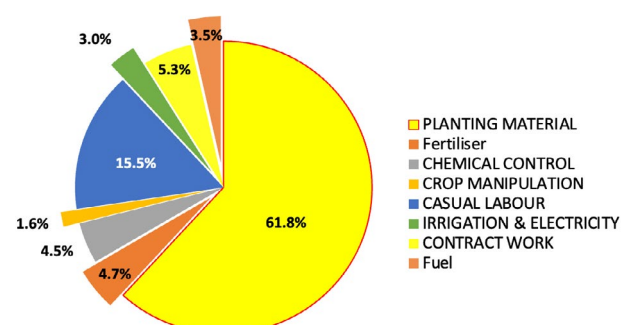
LOCAL MARKET	
Price/ ton(R)	55,00
Quantity (ton/ha)	3470,00
Gross income (R/ha)	190 850,00
Marketing cost 12,5% Fresh Produce Market Fee	23 856,25
Total expenditure (R/ha)	584 439,13
Gross margin (R/ha)	-417 445,38

SENSITIVITY ANALYSIS

YIELD (ton/ha)	PRICE (R/ton)				
	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
-R417 445,38	49,50	52,25	55,00	57,75	60,50
2776,00	-R447 027	-R439 393	-R431 759	-R424 125	-R416 491
3123,00	-R429 851	-R421 262	-R412 674	-R404 086	-R395 498
3470,00	-R412 674	-R403 132	-R393 589	-R384 047	-R374 504
3817,00	-R395 498	-R385 001	-R374 504	-R364 007	-R353 511
4164,00	-R378 321	-R366 870	-R355 419	-R343 968	-R332 517
BREAKEVEN YIELD (ton/ha)	11 807	11 185	10 626	10 120	9660

COSTS OF PRODUCTION	R/HA
PLANTING MATERIAL	361 350,00
Fertiliser	27 522,98
CHEMICAL CONTROL	26 257,61
CROP MANIPULATION	9440,00
CASUAL LABOUR	90 481,21
IRRIGATION & ELECTRICITY	17 565,62
CONTRACT WORK	31 230,00
Fuel	20 591,71
TOTAL	584 439,13

Summary of cost of production



3. BLUEBERRY

Blueberry Irrigation Production: Year 2					
	Unit	Price Per Unit	Quantity	Per Ha	Value Per Yield Unit
GROSS INCOME			6830,00	375 650,00	55,00
Product Income					
Blueberry- Fresh market	Kg	R55,00	6830,00	375 650,00	55,00
MARKETING COSTS (12,5% FRESH PRODUCE MARKET FEES)		12,5%	6830,00	46 956,25	6,88
GROSS INCOME minus MARKETING COSTS				328 693,75	48,13
TOTAL ALLOCATABLE VARIABLE COSTS				284 836,90	41,70
DIRECTLY ALLOCATABLE VARIABLE COSTS				264 245,20	38,69
A) PRE-HARVEST COST					
PLANTING MATERIAL				0,00	0,00
Blueberry Tree	Tree	0,00	0,00	0,00	
FERTILISER				27 522,98	4,03
Fertilisers/Fertigation	Ha	27 522,98	1,00	27 522,98	4,03
Turbo-3I 10:1:5	Ton	12 834,20	0,00	0,00	0,00
Single Super Phosphate 10.5%	Ton	12 854,70	0,00	0,00	0,00
Maxiphos 20	Ton	19 117,14	0,00	0,00	0,00
Urea HB Granular 46%	Ton	12 968,32	0,00	0,00	0,00
KCL	Ton	17 353,50	0,00	0,00	0,00
Lime Ammonium Nitrate (28)	Ton	14 822,58	0,00	0,00	0,00
CHEMICAL CONTROL				26 257,61	3,84
Pest/Insects/Fungus	Ha	26 257,61	1,00	26 257,61	3,84
Spinetoram 250 WG	Kg	7 955,21	0,00	0,00	0,00
Lamda-cyhalothrin	L	152,40	0,00	0,00	0,00
Alpha-cypermethrin	L	835,02	0,00	0,00	0,00
HERBICIDES				0,00	0,00
Paraquat 200SL	L	103,63	0,00	0,00	0,00
Glyphosate	L	145,85	0,00	0,00	0,00
FUNGICIDES				0,00	0,00
Copper Oxychloride	Kg	167,64	0,00	0,00	0,00
Propiconazole 250 EC	L	397,76	0,00	0,00	
CROP MANIPULATION				9 440,00	1,38
Pollination	Hive	1 180,00	8,00	9 440,00	1,38
CASUAL LABOUR				121 988,99	17,86
Casual Labour Planting/day	R/Manday	259,11	0,00	0,00	0,00
Casual labour Weeding/day	R/Manday	259,11	41,00	10 623,51	1,56
Casual labour Pruning/day	R/Manhour	28,79	180,00	5 182,20	0,76
Casual labour Harvesting/day	R/Manday	259,11	409,80	106 183,28	15,55
TRELLISSING/ NETTING STRUCTURE				0,00	0,00
Pine poles 3.6m (80-99mm) (Class 3)	Each	230,75	0,00	0,00	0,00
Wire (4mm)	500m	1 399,00	0,00	0,00	0,00
Wire Round 2mm (2000m)	50KG	1 470,00	0,00	0,00	0,00
PPC Cement	50KG	115,00	0,00	0,00	0,00
Nails 3 inches	kg	28,00	0,00	0,00	0,00

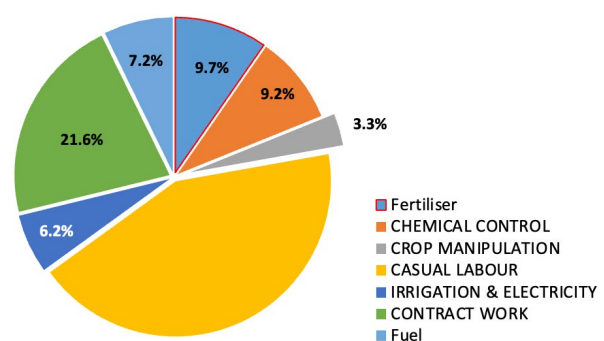
Stone 19 mm	40KG	29,00	0,00	0,00	0,00
Sand	40KG	29,00	0,00	0,00	0,00
Staples pre-pack 32mm x 2.50mm (25 x 1kg)	Kg	47,50	0,00	0,00	0,00
Shade net	R/Ha	178 000,00	0,00	0,00	
IRRIGATION & ELECTRICITY				17 565,62	2,57
Irrigation installation	R/Ha	49 500,00	0,00	0,00	0,00
Electricity cost	Ha	17 565,62	1,00	17 565,62	2,57
CONTRACT WORK				61 470,00	9,00
Transport produce	Kg	6,60	6 830,00	45 078,00	6,60
Transport on farm	Kg	2,40	6 830,00	16 392,00	2,40
GROSS MARGIN ABOVE DIRECTLY ALLOCATABLE VARIABLE COSTS				64 448,55	9,44
			941,12		
INDIRECTLY ALLOCATABLE VARIABLE COSTS				20 591,71	3,01
B) PRE-HARVEST COST				20 591,71	3,01
Fuel	L	21,88	941	20 591,71	3,01
Repairs & Maintenance				0,00	0,00
C) HARVEST COSTS				0,00	0,00
Fuel	L	21,88		0,00	0,00
Repairs & Maintenance				0,00	0,00
GROSS MARGIN ABOVE TOTAL ALLOCATABLE VARIABLE COSTS				43 856,85	6,42

PARAMETRIC BUDGETING	
LOCAL MARKET	
Price/ ton (R)	55,00
Quantity (ton/ha)	6830,00
Gross income (R/ha)	375 650,00
Marketing cost 12,5% Fresh Produce Market Fee	46 956,25
Total expenditure (R/ha)	284 836,90
Gross margin (R/ha)	43 856,85

SENSITIVITY ANALYSIS					
YIELD (ton/ha)	PRICE (R/ton)				
YIELD CHANGE AT 10% INCREMENTS	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
R43 856,85	49,50	52,25	55,00	57,75	60,50
5464,00	-R14 369	R657	R15 683	R30 709	R45 735
6147,00	R19 440	R36 344	R53 248	R70 152	R87 057
6830,00	R53 248	R72 031	R90 813	R109 596	R128 378
7513,00	R87 057	R107 717	R128 378	R149 039	R169 700
8196,00	R120 865	R143 404	R165 943	R188 482	R211 021
BREAKEVEN YIELD (ton/ha)	5754	5451	5179	4932	4708

COSTS OF PRODUCTION	R/HA
Fertiliser	27 522,98
CHEMICAL CONTROL	26 257,61
CROP MANIPULATION	9 440,00
CASUAL LABOUR	121 988,99
IRRIGATION & ELECTRICITY	17 565,62
CONTRACT WORK	61 470,00
Fuel	20 591,71
TOTAL	284 836,90

Summary of cost of production



4. BLUEBERRY

Blueberry Irrigation Production: Year 3					
	Unit	Price Per Unit	Quantity	Per Ha	Value Per Yield Unit
GROSS INCOME			9 040,00	497 200,00	55,00
Product Income					
Blueberry- Fresh market	Kg	R55,00	9 040,00	497 200,00	55,00
MARKETING COSTS (12,5% FRESH PRODUCE MARKET FEES)		12,5%	9 040,00	62 150,00	6,88
GROSS INCOME minus MARKETING COSTS				435 050,00	48,13
TOTAL ALLOCATABLE VARIABLE COSTS				349 449,29	38,66
DIRECTLY ALLOCATABLE VARIABLE COSTS				328 857,58	36,38
A) PRE-HARVEST COST					
PLANTING MATERIAL				0,00	0,00
Blueberry Tree	Tree	0,00	0,00	0,00	
FERTILISER				27 522,98	3,04
Fertilisers/Fertigation	Ha	27 522,98	1,00	27 522,98	3,04
Turbo-31 10:1:5	Ton	12 834,20	0,00	0,00	0,00
Single Super Phosphate 10.5%	Ton	12 854,70	0,00	0,00	0,00
Maxiphos 20	Ton	19 117,14	0,00	0,00	0,00
Urea HB Granular 46%	Ton	12 968,32	0,00	0,00	0,00
KCL	Ton	17 353,50	0,00	0,00	0,00
Lime Ammonium Nitrate (28)	Ton	14 822,58	0,00	0,00	0,00
CHEMICAL CONTROL				26 257,61	2,90
Pest/Insects/Fungus	Ha	26 257,61	1,00	26 257,61	2,90
Spinetoram 250 WG	Kg	7 955,21	0,00	0,00	0,00
Lamda-cyhalothrin	L	152,40	0,00	0,00	0,00
Alpha-cypermethrin	L	835,02	0,00	0,00	0,00
HERBICIDES					
Paraquat 200SL	L	103,63	0,00	0,00	0,00
Glyphosate	L	145,85	0,00	0,00	0,00
FUNGICIDES					
Copper Oxychloride	Kg	167,64	0,00	0,00	0,00
Propiconazole 250 EC	L	397,76	0,00	0,00	
CROP MANIPULATION				9 440,00	1,04
Pollination	Hive	1 180,00	8,00	9 440,00	1,04
CASUAL LABOUR				166 711,37	18,44
Casual Labour Planting/Day	R/Manday	259,11	0,00	0,00	0,00
Casual labour Weeding/day	R/Manday	259,11	41,00	10 623,51	1,18
Casual labour Pruning/day	R/Manhour	28,79	180,00	5 182,20	0,57
Casual labour Harvesting/day	R/Manday	259,11	582,40	150 905,66	16,69
TRELLISSING/ NETTING STRUCTURE					
Pine poles 3.6m (80-99mm) (Class 3)	Each	230,75	0,00	0,00	0,00
Wire (4mm)	500m	1 399,00	0,00	0,00	0,00
Wire Round 2mm (2000m)	50KG	1 470,00	0,00	0,00	0,00

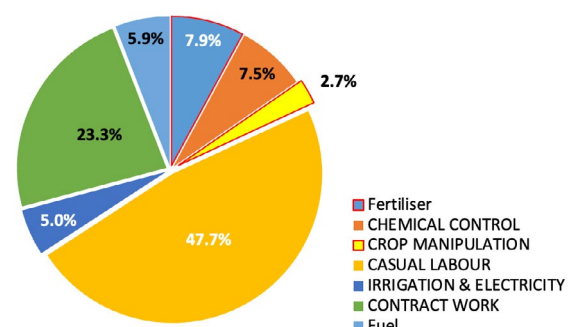
Nails 3 inches	kg	28,00	0,00	0,00	0,00
Stone 19 mm	40KG	29,00	0,00	0,00	0,00
Sand	40KG	29,00	0,00	0,00	0,00
Staples pre-pack 32mm x 2.50mm (25 x 1kg)	Kg	47,50	0,00	0,00	0,00
Shade net	R/Ha	178 000,00	0,00	0,00	
IRRIGATION & ELECTRICITY				17 565,62	1,94
Irrigation installation	R/Ha	49 500,00	0,00	0,00	0,00
Electricity cost	Ha	17 565,62	1,00	17 565,62	1,94
CONTRACT WORK				81 360,00	9,00
Transport produce	Kg	6,60	9 040,00	59 664,00	6,60
Transport on farm	Kg	2,40	9 040,00	21 696,00	2,40
GROSS MARGIN ABOVE DIRECTLY ALLOCATABLE VARIABLE COSTS				106 192,42	11,75
			941,12		
INDIRECTLY ALLOCATABLE VARIABLE COSTS				20 591,71	2,28
B) PRE-HARVEST COST				20 591,71	2,28
Fuel	L	21,88	941	20 591,71	2,28
Repairs & Maintenance				0,00	0,00
C) HARVEST COSTS				0,00	0,00
Fuel	L	21,88		0,00	0,00
Repairs & Maintenance				0,00	0,00
GROSS MARGIN ABOVE TOTAL ALLOCATABLE VARIABLE COSTS				85 600,71	9,47

PARAMETRIC BUDGETING	
LOCAL MARKET	
Price/ ton(R)	55,00
Quantity (ton/ha)	9 040,00
Gross income (R/ha)	497 200,00
Marketing cost 12,5% Fresh Produce Market Fee	62 150,00
Total expenditure (R/ha)	349 449,29
Gross margin (R/ha)	85 600,71

SENSITIVITY ANALYSIS					
YIELD (ton/ha)	PRICE (R/ton)				
YIELD CHANGE AT 10% INCREMENTS	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
R85 600,71	49,50	52,25	55,00	57,75	60,50
7232,00	R8 535	R28 423	R48 311	R68 199	R88 087
8136,00	R53 283	R75 657	R98 031	R120 405	R142 779
9040,00	R98 031	R122 891	R147 751	R172 611	R197 471
9944,00	R142 779	R170 125	R197 471	R224 817	R252 163
10848,00	R187 527	R217 359	R247 191	R277 023	R306 855
BREAKEVEN YIELD (ton/ha)	7 060	6 688	6 354	6 051	5 776

COSTS OF PRODUCTION	R/HA
Fertiliser	27 522,98
CHEMICAL CONTROL	26 257,61
CROP MANIPULATION	9 440,00
CASUAL LABOUR	166 711,37
IRRIGATION & ELECTRICITY	17 565,62
CONTRACT WORK	81 360,00
Fuel	20 591,71
TOTAL	349 449,29

Summary of cost of production



5. BLUEBERRY

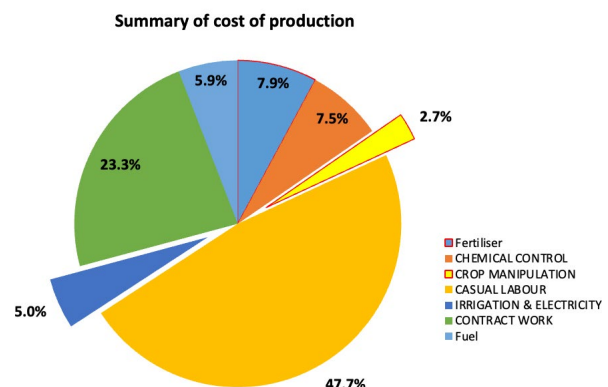
Blueberry Irrigation Production: Year 4					
	Unit	Price Per Unit	Quantity	Per Ha	Value Per Yield Unit
GROSS INCOME			10 590,00	582 450,00	55,00
Product Income					
Blueberry- Fresh market	Kg	R55,00	10 590,00	582 450,00	55,00
MARKETING COSTS (12,5% FRESH PRODUCE MARKET FEES)		12,5%	10 590,00	72 806,25	6,88
GROSS INCOME minus MARKETING COSTS				509 643,75	48,13
TOTAL ALLOCATABLE VARIABLE COSTS				377 543,24	35,65
DIRECTLY ALLOCATABLE VARIABLE COSTS				356 540,41	33,67
A) PRE-HARVEST COST					
PLANTING MATERIAL				0,00	0,00
Blueberry Tree	Tree	0,00	0,00	0,00	
FERTILISER				27 522,98	2,60
Fertilisers/Fertigation	Ha	27 522,98	1,00	27 522,98	2,60
Turbo-31 10:1:5	Ton	12 834,20	0,00	0,00	0,00
Single Super Phosphate 10.5%	Ton	12 854,70	0,00	0,00	0,00
Maxiphos 20	Ton	19 117,14	0,00	0,00	0,00
Urea HB Granular 46%	Ton	12 968,32	0,00	0,00	0,00
KCL	Ton	17 353,50	0,00	0,00	0,00
Lime Ammonium Nitrate (28)	Ton	14 822,58	0,00	0,00	0,00
CHEMICAL CONTROL				26 257,61	2,48
Pest/Insects/Fungus	Ha	26 257,61	1,00	26 257,61	2,48
Spinetoram 250 WG	Kg	7 955,21	0,00	0,00	0,00
Lamda-cyhalothrin	L	152,40	0,00	0,00	0,00
Alpha-cypermethrin	L	835,02	0,00	0,00	0,00
HERBICIDES					
Paraquat 200SL	L	103,63	0,00	0,00	0,00
Glyphosate	L	145,85	0,00	0,00	0,00
FUNGICIDES					
Copper Oxychloride	Kg	167,64	0,00	0,00	0,00
Propiconazole 250 EC	L	397,76	0,00	0,00	
CROP MANIPULATION				9 440,00	0,89
Pollination	Hive	1 180,00	8,00	9 440,00	0,89
CASUAL LABOUR				180 444,20	17,04
Casual Labour Planting/Day	R/Manday	259,11	0,00	0,00	0,00
Casual labour Weeding/day	R/Manday	259,11	41,00	10 623,51	1,00
Casual labour Pruning/day	R/Manhour	28,79	180,00	5 182,20	0,49
Casual labour Harvesting/day	R/Manday	259,11	635,40	164 638,49	15,55
TRELLISSING/ NETTING STRUCTURE					
Pine poles 3.6m (80-99mm) (Class 3)	Each	230,75	0,00	0,00	0,00
Wire (4mm)	500m	1399,00	0,00	0,00	0,00
Wire Round 2mm (2000m)	50KG	1470,00	0,00	0,00	0,00
PPC Cement	50KG	115,00	0,00	0,00	0,00

Wire (4mm)	500m	1 399,00	0,00	0,00	0,00
Wire Round 2mm (2000m)	50KG	1 470,00	0,00	0,00	0,00
PPC Cement	50KG	115,00	0,00	0,00	0,00
Nails 3 inches	kg	28,00	0,00	0,00	0,00
Stone 19 mm	40KG	29,00	0,00	0,00	0,00
Sand	40KG	29,00	0,00	0,00	0,00
Staples pre-pack 32mm x 2.50mm (25 x 1 kg)	Kg	47,50	0,00	0,00	0,00
Shade net	R/Ha	178 000,00	0,00	0,00	
IRRIGATION & ELECTRICITY				17 565,62	1,66
Irrigation installation	R/Ha	49 500,00	0,00	0,00	0,00
Electricity cost	Ha	17 565,62	1,00	17 565,62	1,66
CONTRACT WORK				95 310,00	9,00
Transport produce	Kg	6,60	10 590,00	69 894,00	6,60
Transport on farm	Kg	2,40	10 590,00	25 416,00	2,40
GROSS MARGIN ABOVE DIRECTLY ALLOCATABLE VARIABLE COSTS				153 103,34	14,46
INDIRECTLY ALLOCATABLE VARIABLE COSTS				21 002,83	1,98
B) PRE-HARVEST COST				21 002,83	1,98
Fuel	L	21,88	959,91	21 002,83	1,98
Repairs & Maintenance				0,00	0,00
GROSS MARGIN ABOVE TOTAL ALLOCATABLE VARIABLE COSTS				132 100,51	12,47

PARAMETRIC BUDGETING	
LOCAL MARKET	
Price/ ton(R)	55,00
Quantity (ton/ha)	10 590,00
Gross income (R/ha)	582 450,00
Marketing cost 12,5% Fresh Produce Market Fee	72 806,25
Total expenditure (R/ha)	377 543,24
Gross margin (R/ha)	132 100,51

SENSITIVITY ANALYSIS					
YIELD (ton/ha)	PRICE (R/ton)				
YIELD CHANGE AT 10% INCREMENTS	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
R132 100,51	49,50	52,25	55,00	57,75	60,50
8472,00	R41 821	R65 119	R88 417	R111 715	R135 013
9531,00	R94 241	R120 452	R146 662	R172 872	R199 082
10590,00	R146 662	R175 784	R204 907	R234 029	R263 152
11649,00	R199 082	R231 117	R263 152	R295 187	R327 221
12708,00	R251 503	R286 450	R321 397	R356 344	R391 291
BREAKEVEN YIELD (ton/ha)	7 627	7 226	6 864	6 538	6 240

COSTS OF PRODUCTION	R/HA
Fertiliser	27 522,98
CHEMICAL CONTROL	26 257,61
CROP MANIPULATION	9 440,00
CASUAL LABOUR	180 444,20
IRRIGATION & ELECTRICITY	17 565,62
CONTRACT WORK	95 310,00
Fuel	21 002,83
TOTAL	377 543,24



6. BLUEBERRY

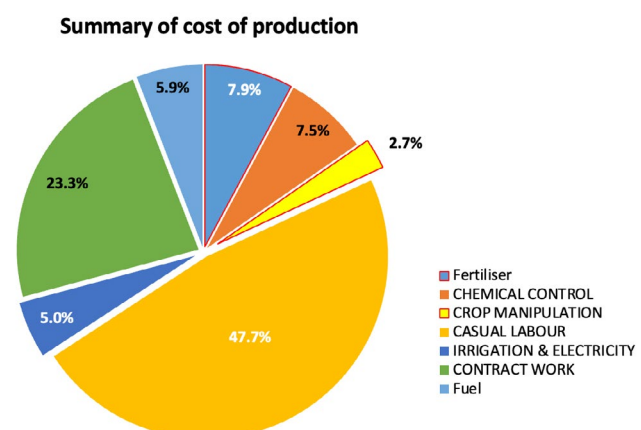
Blueberry Irrigation Production: Year 5					
	Unit	Price Per Unit	Quantity	Per Ha	Value Per Yield Unit
GROSS INCOME			11 910,00	655 050,00	55,00
Product Income					
Blueberry- Fresh market	Kg	R55,00	11 910,00	655 050,00	55,00
MARKETING COSTS (12,5% FRESH PRODUCE MARKET FEES)		12,5%	11 910,00	81 881,25	6,88
GROSS INCOME minus MARKETING COSTS				573 168,75	48,13
TOTAL ALLOCATABLE VARIABLE COSTS				410 769,20	34,49
DIRECTLY ALLOCATABLE VARIABLE COSTS				388 941,93	32,66
A) PRE-HARVEST COST					
PLANTING MATERIAL				0,00	0,00
Blueberry Tree	Tree	0,00	0,00	0,00	
FERTILISER				27 522,98	2,31
Fertilisers/Fertigation	Ha	27 522,98	1,00	27 522,98	2,31
Turbo-31 10:1:5	Ton	12 834,20	0,00	0,00	0,00
Single Super Phosphate 10.5%	Ton	12 854,70	0,00	0,00	0,00
Maxiphos 20	Ton	19 117,14	0,00	0,00	0,00
Urea HB Granular 46%	Ton	12 968,32	0,00	0,00	0,00
KCL	Ton	17 353,50	0,00	0,00	0,00
Lime Ammonium Nitrate (28)	Ton	14 822,58	0,00	0,00	0,00
CHEMICAL CONTROL				26 257,61	2,20
Pest/Insects/Fungus	Ha	26 257,61	1,00	26 257,61	2,20
Spinetoram 250 WG	Kg	7 955,21	0,00	0,00	0,00
Lamda-cyhalothrin	L	152,40	0,00	0,00	0,00
Alpha-cypermethrin	L	835,02	0,00	0,00	0,00
HERBICIDES					
Paraquat 200SL	L	103,63	0,00	0,00	0,00
Glyphosate	L	145,85	0,00	0,00	0,00
FUNGICIDES					
Copper Oxychloride	Kg	167,64	0,00	0,00	0,00
Propiconazole 250 EC	L	397,76	0,00	0,00	
CROP MANIPULATION				9 440,00	0,79
Pollination	Hive	1 180,00	8,00	9 440,00	0,79
CASUAL LABOUR				200 965,72	16,87
Casual Labour Planting/Day	R/Manday	259,11	0,00	0,00	0,00
Casual labour Weeding/day	R/Manday	259,11	41,00	10 623,51	0,89
Casual labour Pruning/day	R/Manhour	28,79	180,00	5 182,20	0,44
Casual labour Harvesting/day	R/Manday	259,11	714,60	185 160,01	15,55
TRELLISSING/ NETTING STRUCTURE					
Pine poles 3.6m (80-99mm) (Class 3)	Each	230,75	0,00	0,00	0,00
Wire (4mm)	500m	1 399,00	0,00	0,00	0,00
Wire Round 2mm (2000m)	50KG	1 470,00	0,00	0,00	0,00

Wire (4mm)	500m	1 399,00	0,00	0,00	0,00
Wire Round 2mm (2000m)	50KG	1 470,00	0,00	0,00	0,00
PPC Cement	50KG	115,00	0,00	0,00	0,00
Nails 3 inches	kg	28,00	0,00	0,00	0,00
Stone 19 mm	40KG	29,00	0,00	0,00	0,00
Sand	40KG	29,00	0,00	0,00	0,00
Staples pre-pack 32mm x 2.50mm (25 x 1 kg)	Kg	47,50	0,00	0,00	0,00
Shade net	R/Ha	178 000,00	0,00	0,00	
IRRIGATION & ELECTRICITY				17 565,62	1,47
Irrigation installation	R/Ha	49 500,00	0,00	0,00	0,00
Electricity cost	Ha	17 565,62	1,00	17 565,62	1,47
CONTRACT WORK				107 190,00	9,00
Transport produce	Kg	6,60	11 910,00	78 606,00	6,60
Transport on farm	Kg	2,40	11 910,00	28 584,00	2,40
GROSS MARGIN ABOVE DIRECTLY ALLOCATABLE VARIABLE COSTS				184 226,82	15,47
INDIRECTLY ALLOCATABLE VARIABLE COSTS				21 827,27	1,83
B) PRE-HARVEST COST				21 827,27	1,83
Fuel	L	21,88	997,59	21 827,27	1,83
Repairs & Maintenance				0,00	0,00
GROSS MARGIN ABOVE TOTAL ALLOCATABLE VARIABLE COSTS				162 399,55	13,64

PARAMETRIC BUDGETING	
LOCAL MARKET	
Price/ ton(R)	55,00
Quantity (ton/ha)	11 910,00
Gross income (R/ha)	655 050,00
Marketing cost 12,5% Fresh Produce Market Fee	81 881,25
Total expenditure (R/ha)	410 769,20
Gross margin (R/ha)	162 399,55

SENSITIVITY ANALYSIS					
YIELD (ton/ha)	PRICE (R/ton)				
YIELD CHANGE AT 10% INCREMENTS	LESS 10%	LESS 5%	ACTUAL	ADD 5%	ADD 10%
R162 399,55	54,00	57,00	60,00	63,00	66,00
9528,00	R133 773	R162 357	R190 941	R219 525	R248 109
10719,00	R198 087	R230 244	R262 401	R294 558	R326 715
11910,00	R262 401	R298 131	R333 861	R369 591	R405 321
13101,00	R326 715	R366 018	R405 321	R444 624	R483 927
14292,00	R391 029	R433 905	R476 781	R519 657	R562 533
BREAKEVEN YIELD (ton/ha)	7051	6680	6 346	6 043	5 769

COSTS OF PRODUCTION	R/HA
Fertiliser	27 522,98
CHEMICAL CONTROL	26 257,61
CROP MANIPULATION	9 440,00
CASUAL LABOUR	200 965,72
IRRIGATION & ELECTRICITY	17 565,62
CONTRACT WORK	107 190,00
Fuel	21 827,27
TOTAL	410 769,20



7. BLUEBERRY

Blueberry Irrigation Production: Year 6					
	Unit	Price Per Unit	Quantity	Per Ha	Value Per Yield Unit
GROSS INCOME			12 110,00	666 050,00	55,00
Product Income					
Blueberry- Fresh market	Kg	R55,00	12 110,00	666 050,00	55,00
MARKETING COSTS (12,5% FRESH PRODUCE MARKET FEES)		12,5%	12 110,00	83 256,25	6,88
GROSS INCOME minus MARKETING COSTS				582 793,75	48,13
TOTAL ALLOCATABLE VARIABLE COSTS				416 714,96	34,41
DIRECTLY ALLOCATABLE VARIABLE COSTS				394 887,69	32,61
A) PRE-HARVEST COST					
PLANTING MATERIAL				0,00	0,00
Blueberry Tree	Tree	0,00	0,00	0,00	
FERTILISER				27 522,98	2,27
Fertilisers/Fertigation	Ha	27 522,98	1,00	27 522,98	2,27
Turbo-31 10:1:5	Ton	12 834,20	0,00	0,00	0,00
Single Super Phosphate 10.5%	Ton	12 854,70	0,00	0,00	0,00
Maxiphos 20	Ton	19 117,14	0,00	0,00	0,00
Urea HB Granular 46%	Ton	12 968,32	0,00	0,00	0,00
KCL	Ton	17 353,50	0,00	0,00	0,00
Lime Ammonium Nitrate (28)	Ton	14 822,58	0,00	0,00	0,00
CHEMICAL CONTROL				26 257,61	2,17
Pest/Insects/Fungus	Ha	26 257,61	1,00	26 257,61	2,17
Spinetoram 250 WG	Kg	7 955,21	0,00	0,00	0,00
Lamda-cyhalothrin	L	152,40	0,00	0,00	0,00
Alpha-cypermethrin	L	835,02	0,00	0,00	0,00
HERBICIDES					
Paraquat 200SL	L	103,63	0,00	0,00	0,00
Glyphosate	L	145,85	0,00	0,00	0,00
FUNGICIDES					
Copper Oxychloride	Kg	167,64	0,00	0,00	0,00
Propiconazole 250 EC	L	397,76	0,00	0,00	
CROP MANIPULATION				9440,00	0,78
Pollination	Hive	1 180,00	8,00	9440,00	0,78
CASUAL LABOUR				205 111,48	16,94
Casual Labour Planting/Day	R/Manday	259,11	0,00	0,00	0,00
Casual labour Weeding/day	R/Manday	259,11	41,00	10 623,51	0,88
Casual labour Pruning/day	R/Manhour	28,79	180,00	5 182,20	0,43
Casual labour Harvesting/day	R/Manday	259,11	730,60	189 305,77	15,63
TRELLISSING/ NETTING STRUCTURE					
Pine poles 3.6m (80-99mm) (Class 3)	Each	230,75	0,00	0,00	0,00
Wire (4mm)	500m	1 399,00	0,00	0,00	0,00
Wire Round 2mm (2000m)	50KG	1 470,00	0,00	0,00	0,00
PPC Cement	50KG	115,00	0,00	0,00	0,00

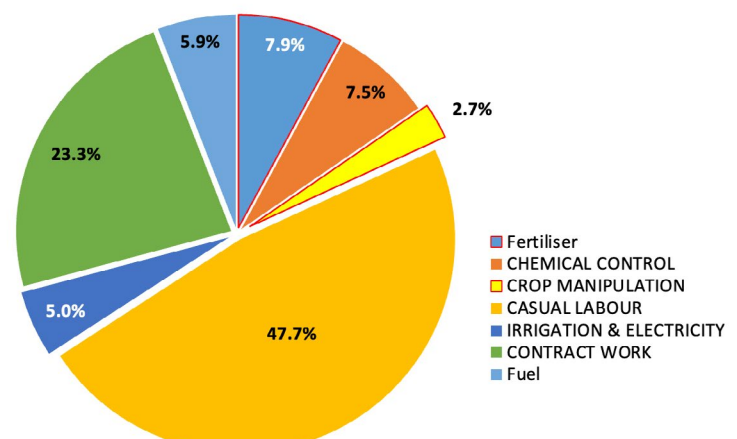
Nails 3 inches	kg	28,00	0,00	0,00	0,00
Stone 19 mm	40KG	29,00	0,00	0,00	0,00
Sand	40KG	29,00	0,00	0,00	0,00
Staples pre-pack 32mm x 2.50mm (25 x 1kg)	Kg	47,50	0,00	0,00	0,00
Shade net	R/Ha	178 000,00	0,00	0,00	
IRRIGATION & ELECTRICITY				17 565,62	1,45
Irrigation installation	R/Ha	49 500,00	0,00	0,00	0,00
Electricity cost	Ha	17 565,62	1,00	17 565,62	1,45
CONTRACT WORK					9,00
Transport produce	Kg	6,60	12 110,00	79 926,00	6,60
Transport on farm	Kg	2,40	12 110,00	29 064,00	2,40
GROSS MARGIN ABOVE DIRECTLY ALLOCATABLE VARIABLE COSTS					15,52
INDIRECTLY ALLOCATABLE VARIABLE COSTS				21 827,27	1,80
B) PRE-HARVEST COST				21 827,27	1,80
Fuel	L	21,88	997,59	21 827,27	1,80
Repairs & Maintenance				0,00	0,00
GROSS MARGIN ABOVE TOTAL ALLOCATABLE VARIABLE COSTS					13,71

PARAMETRIC BUDGETING	
LOCAL MARKET	
Price/ ton(R)	55,00
Quantity (ton/ha)	12 110,00
Gross income (R/ha)	666 050,00
Marketing cost 12,5% Fresh Produce Market Fee	83 256,25
Total expenditure (R/ha)	416 714,96
Gross margin (R/ha)	166 078,79

SENSITIVITY ANALYSIS					
YIELD (ton/ha)	PRICE (R/ton)				
	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
YIELD CHANGE AT 10% INCREMENTS					
R166 078,79	49,50	52,25	55,00	57,75	60,50
9688,00	R62 841	R89 483	R116 125	R142 767	R169 409
10899,00	R122 786	R152 758	R182 730	R212 702	R242 675
12110,00	R182 730	R216 033	R249 335	R282 638	R315 940
13321,00	R242 675	R279 307	R315 940	R352 573	R389 206
14532,00	R302 619	R342 582	R382 545	R422 508	R462 471
BREAKEVEN YIELD (ton/ha)	8 418	7 975	7 577	7 216	6 888

COSTS OF PRODUCTION	R/HA
Fertiliser	27 522,98
CHEMICAL CONTROL	26 257,61
CROP MANIPULATION	9 440,00
CASUAL LABOUR	205 111,48
IRRIGATION & ELECTRICITY	17 565,62
CONTRACT WORK	108 990,00
Fuel	21 827,27
TOTAL	416 714,96

Summary of cost of production



8. BLUEBERRY

Blueberry Irrigation Production: Year 7					
	Unit	Price Per Unit	Quantity	Per Ha	Value Per Yield Unit
GROSS INCOME			12 340,00		55,00
Product Income					
Blueberry- Fresh market	Kg	R55,00	12 340,00		55,00
MARKETING COSTS (12,5% FRESH PRODUCE MARKET FEES)		12,5%	12 340,00	84 837,50	6,88
GROSS INCOME minus MARKETING COSTS					48,13
TOTAL ALLOCATABLE VARIABLE COSTS					34,14
DIRECTLY ALLOCATABLE VARIABLE COSTS					32,37
A) PRE-HARVEST COST					
PLANTING MATERIAL				0,00	0,00
Blueberry Tree	Tree	0,00	0,00	0,00	
FERTILISER				27 522,98	2,23
Fertilisers/Fertigation	Ha	27 522,98	1,00	27 522,98	2,23
Turbo-31 10:1:5	Ton	12 834,20	0,00	0,00	0,00
Single Super Phosphate 10.5%	Ton	12 854,70	0,00	0,00	0,00
Maxiphos 20	Ton	19 117,14	0,00	0,00	0,00
Urea HB Granular 46%	Ton	12 968,32	0,00	0,00	0,00
KCL	Ton	17 353,50	0,00	0,00	0,00
Lime Ammonium Nitrate (28)	Ton	14 822,58	0,00	0,00	0,00
CHEMICAL CONTROL				26 257,61	2,13
Pest/Insects/Fungus	Ha	26 257,61	1,00	26 257,61	2,13
Spinetoram 250 WG	Kg	7 955,21	0,00	0,00	0,00
Lamda-cyhalothrin	L	152,40	0,00	0,00	0,00
Alpha-cypermethrin	L	835,02	0,00	0,00	0,00
HERBICIDES					
Paraquat 200SL	L	103,63	0,00	0,00	0,00
Glyphosate	L	145,85	0,00	0,00	0,00
FUNGICIDES					
Copper Oxychloride	Kg	167,64	0,00	0,00	0,00
Propiconazole 250 EC	L	397,76	0,00	0,00	
CROP MANIPULATION				9 440,00	0,76
Pollination	Hive	1 180,00	8,00	9 440,00	0,76
CASUAL LABOUR					16,83
Casual Labour Planting/Day	R/Manday	259,11	0,00	0,00	0,00
Casual labour Weeding/day	R/Manday	259,11	41,00	10 623,51	0,86
Casual labour Pruning/day	R/Manhour	28,79	180,00	5 182,20	0,42
Casual labour Harvesting/day	R/Manday	259,11	740,40	191 845,04	15,55
TRELLISSING/ NETTING STRUCTURE					
Pine poles 3.6m (80-99mm) (Class 3)	Each	230,75	0,00	0,00	0,00
Wire (4mm)	500m	1399,00	0,00	0,00	0,00
Wire Round 2mm (2000m)	50KG	1470,00	0,00	0,00	0,00
PPC Cement	50KG	115,00	0,00	0,00	0,00

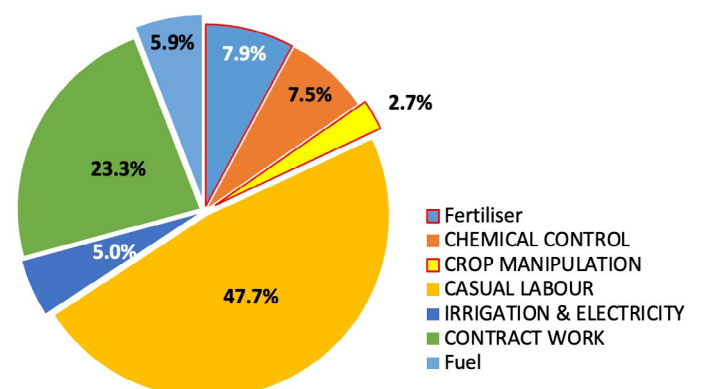
Nails 3 inches	kg	28,00	0,00	0,00	0,00
Stone 19 mm	40KG	29,00	0,00	0,00	0,00
Sand	40KG	29,00	0,00	0,00	0,00
Staples pre-pack 32mm x 2.50mm (25 x 1kg)	Kg	47,50	0,00	0,00	0,00
Shade net	R/Ha	178 000,00	0,00	0,00	
IRRIGATION & ELECTRICITY				17 565,62	1,42
Irrigation installation	R/Ha	49 500,00	0,00	0,00	0,00
Electricity cost	Ha	17 565,62	1,00	17 565,62	1,42
CONTRACT WORK				111 060,00	9,00
Transport produce	Kg	6,60	12 340,00	81 444,00	6,60
Transport on farm	Kg	2,40	12 340,00	29 616,00	2,40
GROSS MARGIN ABOVE DIRECTLY ALLOCATABLE VARIABLE COSTS				194 365,54	15,75
INDIRECTLY ALLOCATABLE VARIABLE COSTS				21 827,27	1,77
B) PRE-HARVEST COST				21 827,27	1,77
Fuel	L	21,88	997,59	21 827,27	1,77
Repairs & Maintenance				0,00	0,00
GROSS MARGIN ABOVE TOTAL ALLOCATABLE VARIABLE COSTS				172 538,27	13,98

PARAMETRIC BUDGETING	
LOCAL MARKET	
Price/ ton(R)	55,00
Quantity (ton/ha)	12 340,00
Gross income (R/ha)	678 700,00
Marketing cost 12,5% Fresh Produce Market Fee	84 837,50
Total expenditure (R/ha)	421 324,23
Gross margin (R/ha)	172 538,27

SENSITIVITY ANALYSIS					
YIELD (ton/ha)	PRICE (R/ton)				
YIELD CHANGE AT 10% INCREMENTS	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
R172 538,27	49,50	52,25	55,00	57,75	60,50
9872,00	R67 340	R94 488	R121 636	R148 784	R175 932
11106,00	R128 423	R158 964	R189 506	R220 047	R250 589
12340,00	R189 506	R223 441	R257 376	R291 311	R325 246
13574,00	R250 589	R287 917	R325 246	R362 574	R399 903
14808,00	R311 672	R352 394	R393 116	R433 838	R474 560
BREAKEVEN YIELD (ton/ha)	8512	8064	7Ê660	7Ê296	6Ê964

COSTS OF PRODUCTION	R/HA
Fertiliser	27 522,98
CHEMICAL CONTROL	26 257,61
CROP MANIPULATION	9 440,00
CASUAL LABOUR	207 650,75
IRRIGATION & ELECTRICITY	17 565,62
CONTRACT WORK	111 060,00
Fuel	21 827,27
TOTAL	421 324,23

Summary of cost of production



9. BLUEBERRY

Blueberry Irrigation Production: Year 8					
	Unit	Price Per Unit	Quantity	Per Ha	Value Per Yield Unit
GROSS INCOME			11 720,00	644 600,00	55,00
Product Income					
Blueberry- Fresh market	Kg	R55,00	11 720,00	644 600,00	55,00
MARKETING COSTS (12,5% FRESH PRODUCE MARKET FEES)		12,5%	11 720,00	80 575,00	6,88
GROSS INCOME minus MARKETING COSTS				564 025,00	48,13
TOTAL ALLOCATABLE VARIABLE COSTS				410 189,50	35,00
DIRECTLY ALLOCATABLE VARIABLE COSTS				386 920,99	33,01
A) PRE-HARVEST COST					
PLANTING MATERIAL				0,00	0,00
Blueberry Tree	Tree	0,00	0,00	0,00	
FERTILISER				27 522,98	2,35
Fertilisers/Fertigation	Ha	27 522,98	1,00	27 522,98	2,35
Turbo-31 10:1:5	Ton	12 834,20	0,00	0,00	0,00
Single Super Phosphate 10.5%	Ton	12 854,70	0,00	0,00	0,00
Maxiphos 20	Ton	19 117,14	0,00	0,00	0,00
Urea HB Granular 46%	Ton	12 968,32	0,00	0,00	0,00
KCL	Ton	17 353,50	0,00	0,00	0,00
Lime Ammonium Nitrate (28)	Ton	14 822,58	0,00	0,00	0,00
CHEMICAL CONTROL				26 257,61	2,24
Pest/Insects/Fungus	Ha	26 257,61	1,00	26 257,61	2,24
Spinetoram 250 WG	Kg	7 955,21	0,00	0,00	0,00
Lamda-cyhalothrin	L	152,40	0,00	0,00	0,00
Alpha-cypermethrin	L	835,02	0,00	0,00	0,00
HERBICIDES					
Paraquat 200SL	L	103,63	0,00	0,00	0,00
Glyphosate	L	145,85	0,00	0,00	0,00
FUNGICIDES				0,00	0,00
Copper Oxychloride	Kg	167,64	0,00	0,00	0,00
Propiconazole 250 EC	L	397,76	0,00	0,00	
CROP MANIPULATION				9 440,00	0,81
Pollination	Hive	1 180,00	8,00	9 440,00	0,81
CASUAL LABOUR				200 654,78	17,12
Casual Labour Planting/Day	R/Manday	259,11	0,00	0,00	0,00
Casual labour Weeding/day	R/Manday	259,11	41,00	10 623,51	0,91
Casual labour Pruning/day	R/Manhour	28,79	180,00	5 182,20	0,44
Casual labour Harvesting/day	R/Manday	259,11	713,40	184 849,07	15,77
TRELLISSING/ NETTING STRUCTURE				0,00	0,00
Pine poles 3.6m (80-99mm) (Class 3)	Each	230,75	0,00	0,00	0,00
Wire (4mm)	500m	1 399,00	0,00	0,00	0,00
Wire Round 2mm (2000m)	50KG	1 470,00	0,00	0,00	0,00
PPC Cement	50KG	115,00	0,00	0,00	0,00

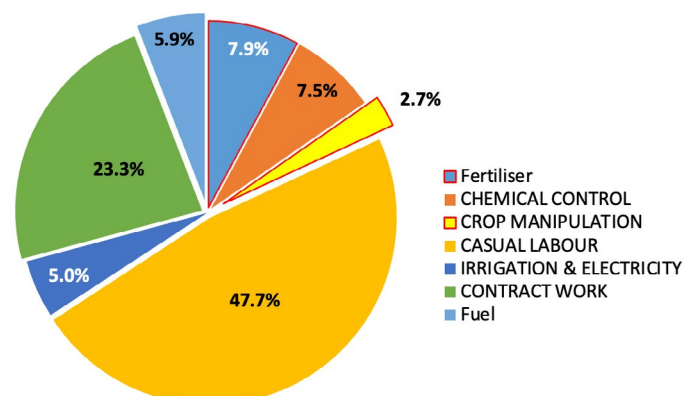
Nails 3 inches	kg	28,00	0,00	0,00	0,00
Stone 19 mm	40KG	29,00	0,00	0,00	0,00
Sand	40KG	29,00	0,00	0,00	0,00
Staples pre-pack 32mm x 2.50mm (25 x 1kg)	Kg	47,50	0,00	0,00	0,00
Shade net	R/Ha	178 000,00	0,00	0,00	
IRRIGATION & ELECTRICITY				17 565,62	1,50
Irrigation installation	R/Ha	49 500,00	0,00	0,00	0,00
Electricity cost	Ha	17 565,62	1,00	17 565,62	1,50
CONTRACT WORK				105 480,00	9,00
Transport produce	Kg	6,60	11 720,00	77 352,00	6,60
Transport on farm	Kg	2,40	11 720,00	28 128,00	2,40
GROSS MARGIN ABOVE DIRECTLY ALLOCATABLE VARIABLE COSTS				177 104,01	15,11
INDIRECTLY ALLOCATABLE VARIABLE COSTS				23 268,50	1,99
B) PRE-HARVEST COST				23 268,50	1,99
Fuel	L	21,88	1063,46	23 268,50	1,99
Repairs & Maintenance				0,00	0,00
GROSS MARGIN ABOVE TOTAL ALLOCATABLE VARIABLE COSTS				153 835,50	13,13

PARAMETRIC BUDGETING	
LOCAL MARKET	
Price/ ton(R)	55,00
Quantity (ton/ha)	11 720,00
Gross income (R/ha)	644 600,00
Marketing cost 12,5% Fresh Produce Market Fee	80 575,00
Total expenditure (R/ha)	410 189,50
Gross margin (R/ha)	153 835,50

SENSITIVITY ANALYSIS					
YIELD (ton/ha)	PRICE (R/ton)				
YIELD CHANGE AT 10% INCREMENTS	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
R153 835,50	49,50	52,25	55,00	57,75	60,50
9376,00	R53 923	R79 707	R105 491	R131 275	R157 059
10548,00	R111 937	R140 944	R169 951	R198 958	R227 965
11720,00	R169 951	R202 181	R234 411	R266 641	R298 871
12892,00	R227 965	R263 418	R298 871	R334 324	R369 777
14064,00	R285 979	R324 655	R363 331	R402 007	R440 683
BREAKEVEN YIELD (ton/ha)	8287	7851	7458	7103	6 780

COSTS OF PRODUCTION	R/HA
Fertiliser	27 522,98
CHEMICAL CONTROL	26 257,61
CROP MANIPULATION	9 440,00
CASUAL LABOUR	200 654,78
IRRIGATION & ELECTRICITY	17 565,62
CONTRACT WORK	105 480,00
Fuel	23 268,50
TOTAL	410 189,50

Summary of cost of production



10. CITRUS (LEMON)

Citrus (Lemon): Irrigation Production: Year I (Establishment)					
	Unit	Price Per Unit	Quantity	Per Ha	Value Per Yield Unit
GROSS INCOME			0,00	0,00	0,00
Product Income					
		0,00	0,00	0,00	0,00
Lemons - Local Market	Ton	7600,00	0,00	0,00	0,00
MARKETING COSTS	Ton	0,00	0,00	0,00	0,00
GROSS INCOME minus MARKETING COSTS				0,00	0,00
TOTAL ALLOCATABLE VARIABLE COSTS				197 662,96	0,00
DIRECTLY ALLOCATABLE VARIABLE COSTS				196 046,33	0,00
A) PRE-HARVEST COST					
PLANTING MATERIAL				79 399,45	0,00
Citrus Eureka Tree	Tree	129,95	611,00	79 399,45	0,00
FERTILISER				77 681,74	0,00
Urea HB Granular 46%	Ton	9 982,00	1,20	11 978,40	0,00
Mono Ammonium Phosphate	Ton	14 685,00	1,00	14 685,00	0,00
Calcium Nitrate	Ton	12 375,92	1,80	22 276,65	0,00
Magnesium	Ton	15 035,62	0,60	9 021,37	0,00
Potassium Nitrate	Ton	7 851,57	0,20	1 570,31	0,00
KCL	Ton	18 150,00	1,00	18 150,00	0,00
HERBICIDES				57,28	0,00
Glyphosate	L	190,92	0,30	57,28	0,00
INSECTICIDES				884,58	0,00
Bacillus thuringiensis	Kg	797,04	0,13	99,63	0,00
Imidacloprid 350SC	L	597,40	0,90	537,66	0,00
Mineral Oil 857g/l (Ampron)	L	23,51	3,00	70,52	0,00
Spinetoram 250 WG	kg	7 365,42	0,02	176,77	0,00
FUNGICIDES				1 360,22	0,00
Potassium phosphite 400 SL	L	34,01	40,00	1 360,22	0,00
PESTICIDES				59,21	0,00
Spirotetramat	L	2960,342	0,02	59,21	0,00
CASUAL LABOUR				5 383,73	0,00
Casual Labour Planting/Hour	R/Manhour	28,79	187,00	5 383,73	0,00
DRIP IRRIGATION				19 982,32	0,00
Mainline, airvalves and fittings	Each	19 982,32	1,00	19 982,32	0,00
Block valves, filters and fittings	Each	11 091,84	1,00	11 091,84	0,00
PvC submain, driplines and fittings	Each	29 011,20	1,00	29 011,20	0,00
37 Kw Variable Speed Drive	Each	13 822,56	1,00	13 822,56	0,00
Installation of VSD	Each	1 560,00	1,00	1 560,00	0,00
Installation of irrigation material	Each	11 889,12	1,00	11 889,12	0,00
CONTRACTOR				11 297,02	0,00
Ridges & Levelling	R/Manday	228,78	13,00	2 974,14	0,00

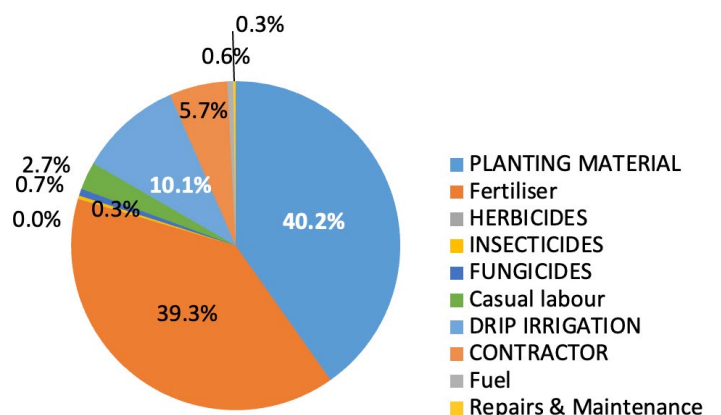
Ridging	R/Manday	6 250,00	1,00	6 250,00	0,00
Ripping	R/Manday	259,11	8,00	2 072,88	0,00
GROSS MARGIN ABOVE DIRECTLY ALLOCATABLE VARIABLE COSTS					0,00
INDIRECTLY ALLOCATABLE VARIABLE COSTS					1 616,63
C) PRE-HARVEST COST					1 616,63
Fuel	L	21,88	50,96	1 114,91	0,00
Repairs & Maintenance				501,71	0,00
D) HARVEST COSTS					0,00
Fuel	L	21,88		0,00	0,00
Repairs & Maintenance				0,00	0,00
GROSS MARGIN ABOVE TOTAL ALLOCATABLE VARIABLE COSTS					0,00

PARAMETRIC BUDGETING	
LOCAL MARKET	
Price/ ton(R)	7600,00
Quantity (ton/ha)	-
Gross income (R/ha)	-
Total expenditure (R/ha)	197 662,96
Gross margin (R/ha)	-197 662,96

SENSITIVITY ANALYSIS					
YIELD (ton/ha)	PRICE (R/ton)				
YIELD CHANGE AT 10% INCREMENTS	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
-R197 662,96	6 840,00	7 220,00	7 600,00	7 980,00	8 360,00
0,00	-R197 663	-R197 663	-R197 663	-R197 663	-R197 663
0,00	-R197 663	-R197 663	-R197 663	-R197 663	-R197 663
0,00	-R197 663	-R197 663	-R197 663	-R197 663	-R197 663
0,00	-R197 663	-R197 663	-R197 663	-R197 663	-R197 663
0,00	-R197 663	-R197 663	-R197 663	-R197 663	-R197 663
BREAKEVEN YIELD (ton/ha)	29	27	26	25	24

COSTS OF PRODUCTION	R/HA
PLANTING MATERIAL	79 399
Fertiliser	77 681,74
HERBICIDES	57,28
INSECTICIDES	637,29
FUNGICIDES	1 360,22
Casual labour	5 383,73
DRIP IRRIGATION	19 982,32
CONTRACTOR	11 297,02
Fuel	1 114,91
Repairs & Maintenance	501,71
TOTAL	197 415,67

Summary of cost of production



II. CITRUS (LEMON)

Citrus (Lemon): Irrigation Production: Year 2					
	Unit	Price Per Unit	Quantity	Per Ha	Value Per Yield Unit
GROSS INCOME			0,00	0,00	0,00
Product Income					
Lemons - Local Market	Ton	7600,00	0,00	0,00	0,00
MARKETING COSTS	Ton	0,00	0,00	0,00	0,00
GROSS INCOME minus MARKETING COSTS				0,00	0,00
TOTAL ALLOCATABLE VARIABLE COSTS				88 380,00	0,00
DIRECTLY ALLOCATABLE VARIABLE COSTS				86 763,38	0,00
A) PRE-HARVEST COST					
PLANTING MATERIAL				0,00	0,00
Citrus Eureka Tree	Tree	0,00	0,00	0,00	0,00
FERTILISER				81 523,09	0,00
Urea HB Granular 46%	Ton	9 982,00	1,20	11 978,40	0,00
Mono Ammonium Phosphate	Ton	17 618,00	1,00	17 618,00	0,00
Calcium Nitrate	Ton	12 375,92	1,40	17 326,28	0,00
Magnesium	Ton	15 640,00	0,60	9 384,00	0,00
Potassium Nitrate	Ton	7 851,57	0,90	7 066,41	0,00
KCL	Ton	18 150,00	1,00	18 150,00	0,00
HERBICIDES				57,28	0,00
Glyphosate	L	190,92	0,30	57,28	0,00
INSECTICIDES				884,58	0,00
Bacillus thuringiensis	Kg	797,04	0,13	99,63	0,00
Imidacloprid 350SC	L	597,40	0,90	537,66	0,00
Mineral Oil 857g/l (Ampron)	L	23,51	3,00	70,52	0,00
Spinetoram 250 WG	kg	7365,42	0,02	176,77	0,00
FUNGICIDES				1 360,22	0,00
Potassium phosphite 400 SL	L	34,01	40,00	1 360,22	0,00
PESTICIDES				59,21	0,00
Spirotetramat	L	2 960,34	0,02	59,21	0,00
CASUAL LABOUR				2 879,00	0,00
Casual Labour Planting/Hour	R/Manhour	28,79	100,00	2 879,00	0,00
B) HARVEST COSTS					
GROSS MARGIN ABOVE DIRECTLY ALLOCATABLE VARIABLE COSTS				-86 763,38	0,00
INDIRECTLY ALLOCATABLE VARIABLE COSTS				1 616,63	0,00
C) PRE-HARVEST COST				1 616,63	
Fuel	L	21,88	50,96	1 114,91	0,00
Repairs & Maintenance				501,71	0,00

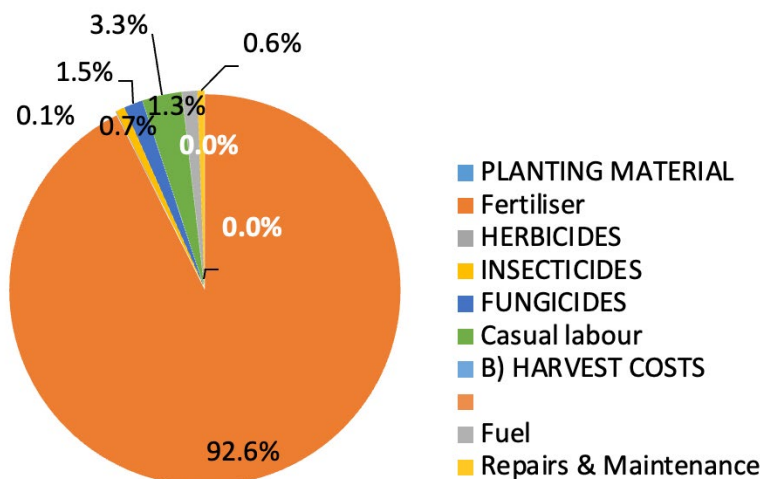
D) HARVEST COSTS				0,00	
Fuel	L	21,88		0,00	0,00
Repairs & Maintenance				0,00	0,00
GROSS MARGIN ABOVE TOTAL ALLOCATABLE VARIABLE COSTS				-88 380,00	0,00

PARAMETRIC BUDGETING	
LOCAL MARKET	
Price/ ton(R)	7 600,00
Quantity (ton/ha)	-
Gross income (R/ha)	-
Total expenditure (R/ha)	88 380,00
Gross margin (R/ha)	-88 380,00

SENSITIVITY ANALYSIS					
YIELD (ton/ha)	PRICE (R/ton)				
YIELD CHANGE AT 10% INCREMENTS	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
-R88 380,00	6 840,00	7 220,00	7 600,00	7 980,00	8 360,00
0,00	-R88 380	-R88 380	-R88 380	-R88 380	-R88 380
0,00	-R88 380	-R88 380	-R88 380	-R88 380	-R88 380
0,00	-R88 380	-R88 380	-R88 380	-R88 380	-R88 380
0,00	-R88 380	-R88 380	-R88 380	-R88 380	-R88 380
0,00	-R88 380	-R88 380	-R88 380	-R88 380	-R88 380
0,00	-R88 380	-R88 380	-R88 380	-R88 380	-R88 380
BREAKEVEN YIELD (ton/ha)	13	12	12	11	11

COSTS OF PRODUCTION	R/HA
PLANTING MATERIAL	-
Fertiliser	81 523,09
HERBICIDES	57,28
INSECTICIDES	637,29
FUNGICIDES	1360,22
Casual labour	2879,00
B) HARVEST COSTS	0,00
Fuel	1114,91
Repairs & Maintenance	501,71
TOTAL	88 073,51

Summary of cost of production



12. CITRUS (LEMON)

Citrus (Lemon): Irrigation Production: Year 3					
	Unit	Price Per Unit	Quantity	Per Ha	Value Per Yield Unit
GROSS INCOME			17,00	129 200,00	7600,00
Product Income				,	
		0,00	0,00	0,00	0,00
Lemons - Local Market	Ton	7600,00	17,00	129 200,00	7600,00
MARKETING COSTS	Ton	0,00	17,00	0,00	0,00
GROSS INCOME minus MARKETING COSTS				129 200,00	7600,00
					0,00
TOTAL ALLOCATABLE VARIABLE COSTS				122 292,41	7193,67
DIRECTLY ALLOCATABLE VARIABLE COSTS				120 080,15	7063,54
A) PRE-HARVEST COST					
PLANTING MATERIAL				0,00	
FERTILISER				100 878,09	5 934,01
Urea HB Granular 46%	Ton	9 982,00	1,90	18 965,80	1 115,64
Mono Ammonium Phosphate	Ton	17 618,00	1,00	17 618,00	1036,35
Calcium Nitrate	Ton	12 375,92	1,40	17 326,28	1019,19
Magnesium	Ton	15 640,00	1,20	18 768,00	1104,00
Potassium Nitrate	Ton	7 851,57	1,28	10 050,01	591,18
KCL	Ton	18 150,00	1,00	18 150,00	1067,65
HERBICIDES				57,28	3,37
Glyphosate	L	190,92	0,30	57,28	3,37
INSECTICIDES				10 441,48	614,20
Bacillus thuringiensis	Kg	797,04	2,13	1 693,71	99,63
Imidacloprid 350SC	L	597,40	1,90	1 135,06	66,77
Mineral Oil 857g/l (Ampron)	L	23,51	3,00	70,52	4,15
Spinetoram 250 WG	kg	7 365,42	1,02	7 542,19	443,66
FUNGICIDES				1 360,22	80,01
Potassium phosphite 400 SL	L	34,01	40,00	1 360,22	80,01
PESTICIDES				59,21	3,48
Spirotetramat	L	2 960,34	0,02	59,21	3,48
CASUAL LABOUR				2 879,00	169,35
Casual Labour Spraying/Hour	R/Manhour	28,79	100,00	2 879,00	169,35
B) HARVEST COSTS				4 404,87	259,11
Casual Labour Harvesting/Hour	R/Manhour	28,79	118,00	3 397,22	199,84
Casual Labour Sorting & Grading/Hour	R/Manhour	28,79	35,00	1 007,65	59,27
GROSS MARGIN ABOVE DIRECTLY ALLOCATABLE VARIABLE COSTS				9 119,85	536,46
					0,00
INDIRECTLY ALLOCATABLE VARIABLE COSTS				2 212,26	130,13
C) PRE-HARVEST COST				1 293,30	76,08
Fuel	L	21,88	40,76	891,93	52,47
Repairs & Maintenance				401,37	23,61

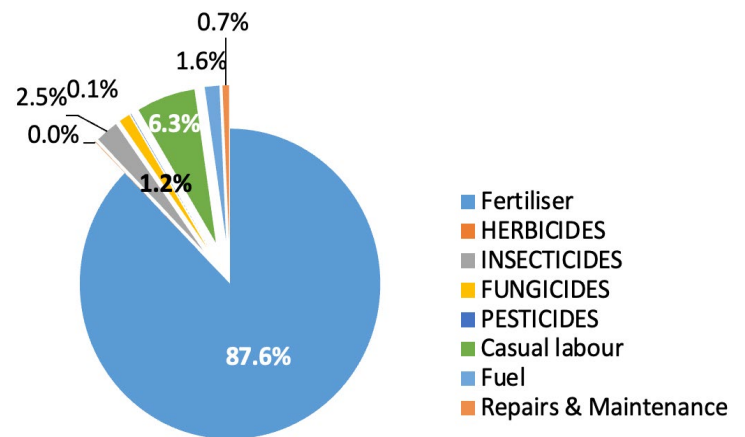
D) HARVEST COSTS				918,96	54,06
Fuel	L	21,88	42,00	918,96	54,06
Repairs & Maintenance				413,53	24,33
GROSS MARGIN ABOVE TOTAL ALLOCATABLE VARIABLE COSTS				6 907,59	406,33

PARAMETRIC BUDGETING	
LOCAL MARKET	
Price/ ton(R)	7 600,00
Quantity (ton/ha)	17,00
Gross income (R/ha)	129 200,00
Total expenditure (R/ha)	122 292,41
Gross margin (R/ha)	6 907,59

SENSITIVITY ANALYSIS					
YIELD (ton/ha)	PRICE (R/ton)				
YIELD CHANGE AT 10% INCREMENTS	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
R6 907,59	6 840,00	7 220,00	7 600,00	7 980,00	8 360,00
13,60	-R29 268	-R24 100	-R18 932	-R13 764	-R8 596
15,30	-R17 640	-R11 826	-R6 012	-R198	R5 616
17,00	-R6 012	R448	R6 908	R13 368	R19 828
18,70	R5 616	R12 722	R19 828	R26 934	R34 040
20,40	R17 244	R24 996	R32 748	R40 500	R48 252
BREAKEVEN YIELD (ton/ha)	18	17	16	15	15

COSTS OF PRODUCTION	R/HA
Fertiliser	100 878,09
HERBICIDES	57,28
INSECTICIDES	2 828,78
FUNGICIDES	1 360,22
PESTICIDES	59,21
Casual labour	7 283,87
Fuel	1 810,89
Repairs & Maintenance	814,90
TOTAL	115 093,24

Summary of cost of production



14. CITRUS (LEMON)

Citrus (Lemon): Irrigation Production: Year 4					
	Unit	Price Per Unit	Quantity	Per Ha	Value Per Yield Unit
GROSS INCOME			30,00	228 000,00	7 600,00
Product Income					
		0,00	0,00	0,00	0,00
Lemons - Local Market	Ton	7 600,00	30,00	228 000,00	7 600,00
MARKETING COSTS	Ton	0,00	30,00	0,00	0,00
GROSS INCOME minus MARKETING COSTS				228 000,00	7 600,00
					0,00
TOTAL ALLOCATABLE VARIABLE COSTS				154 048,82	5 134,96
DIRECTLY ALLOCATABLE VARIABLE COSTS				151 223,92	5 040,80
A) PRE-HARVEST COST					
PLANTING MATERIAL				0,00	
FERTILISER				123 903,08	4 130,10
Urea HB Granular 46%	Ton	9 982,00	2,20	21 960,40	732,01
Mono Ammonium Phosphate	Ton	17 618,00	1,20	21 141,60	704,72
Calcium Nitrate	Ton	12 375,92	1,50	18 563,88	618,80
Magnesium	Ton	15 640,00	1,48	23 147,20	771,57
Potassium Nitrate	Ton	7 851,57	1,28	10 050,01	335,00
KCL	Ton	18 150,00	1,60	29 040,00	968,00
HERBICIDES				57,28	1,91
Glyphosate	L	190,92	0,30	57,28	1,91
INSECTICIDES				10 441,48	348,05
Bacillus thuringiensis	Kg	797,04	2,13	1 693,71	56,46
Imidacloprid 350SC	L	597,40	1,90	1 135,06	37,84
Mineral Oil 857g/l (Ampron)	L	23,51	3,00	70,52	2,35
Spinetoram 250 WG	kg	7 365,42	1,02	7 542,19	251,41
FUNGICIDES				1 360,22	45,34
Potassium phosphite 400 SL	L	34,01	40,00	1 360,22	45,34
PESTICIDES				59,21	1,97
Spirotetramat	L	2 960,34	0,02	59,21	1,97
CASUAL LABOUR				2 879,00	95,97
Casual Labour Spraying/Hour	R/Manhour	28,79	100,00	2 879,00	95,97
B) HARVEST COSTS				12 523,65	417,46
Casual Labour Harvesting/Hour	R/Manhour	28,79	395,00	11 372,05	379,07
Casual Labour Sorting & Grading/Hour	R/Manhour	28,79	40,00	1 151,60	38,39
GROSS MARGIN ABOVE DIRECTLY ALLOCATABLE VARIABLE COSTS				76 776,08	2 559,20
					0,00
INDIRECTLY ALLOCATABLE VARIABLE COSTS				2 824,90	94,16
C) PRE-HARVEST COST				1 293,30	43,11
Fuel	L	21,88	40,76	891,93	29,73
Repairs & Maintenance				401,37	13,38

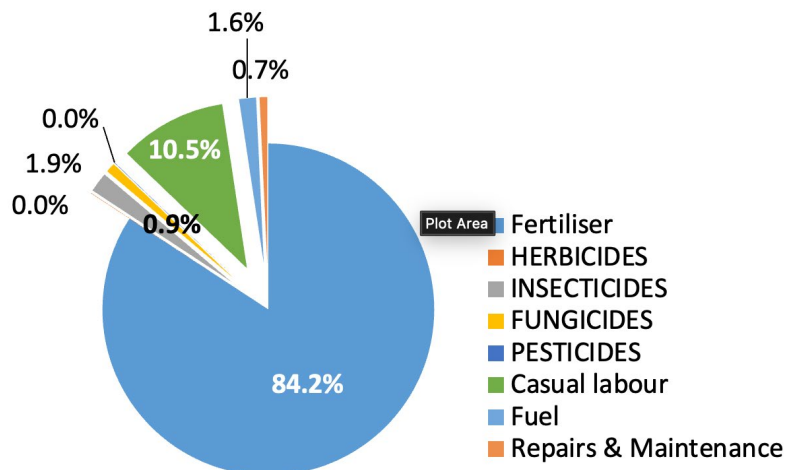
D) HARVEST COSTS				1531,60	51,05
Fuel	L	21,88	70,00	1531,60	51,05
Repairs & Maintenance				689,22	22,97
GROSS MARGIN ABOVE TOTAL ALLOCATABLE VARIABLE COSTS				73 951,18	2465,04

PARAMETRIC BUDGETING	
LOCAL MARKET	
Price/ ton(R)	7600,00
Quantity (ton/ha)	30,00
Gross income (R/ha)	228 000,00
Total expenditure (R/ha)	154 048,82
Gross margin (R/ha)	73 951,18

SENSITIVITY ANALYSIS					
YIELD (ton/ha)	PRICE (R/ton)				
YIELD CHANGE AT 10% INCREMENTS	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
R73 951,18	6840,00	7220,00	7600,00	7980,00	8360,00
24,00	R10 111	R19 231	R28 351	R37 471	R46 591
27,00	R30 631	R40 891	R51 151	R61 411	R71 671
30,00	R51 151	R62 551	R73 951	R85 351	R96 751
33,00	R71 671	R84 211	R96 751	R109 291	R121 831
36,00	R92 191	R105 871	R119 551	R133 231	R146 911
BREAKEVEN YIELD (ton/ha)	23	21	20	19	18

COSTS OF PRODUCTION	R/HA
Fertiliser	123 903,08
HERBICIDES	57,28
INSECTICIDES	2 828,78
FUNGICIDES	1 360,22
PESTICIDES	59,21
Casual labour	15 402,65
Fuel	2 423,53
Repairs & Maintenance	1 090,59
TOTAL	147 125,33

Summary of cost of production



15. CITRUS (LEMON)

Citrus (Lemon): Irrigation Production: Year 5					
	Unit	Price Per Unit	Quantity	Per Ha	Value Per Yield Unit
GROSS INCOME			50,00	380 000,00	7600,00
Product Income				,	
		0,00	0,00	0,00	0,00
Lemons - Local Market	Ton	7600,00	50,00	380 000,00	7600,00
MARKETING COSTS	Ton	0,00	50,00	0,00	0,00
GROSS INCOME minus MARKETING COSTS				380 000,00	7600,00
TOTAL ALLOCATABLE VARIABLE COSTS				156 389,57	3127,79
DIRECTLY ALLOCATABLE VARIABLE COSTS				153 564,67	3071,29
A) PRE-HARVEST COST					
PLANTING MATERIAL				0,00	
FERTILISER				124 084,58	2481,69
Urea HB Granular 46%	Ton	9982,00	2,20	21 960,40	439,21
Mono Ammonium Phosphate	Ton	17 618,00	1,20	21 141,60	422,83
Calcium Nitrate	Ton	12 375,92	1,50	18 563,88	371,28
Magnesium	Ton	15 640,00	1,48	23 147,20	462,94
Potassium Nitrate	Ton	7851,57	1,28	10 050,01	201,00
KCL	Ton	18 150,00	1,61	29 221,50	584,43
HERBICIDES				57,28	1,15
Glyphosate	L	190,92	0,30	57,28	1,15
INSECTICIDES				10 441,48	208,83
Bacillus thuringiensis	Kg	797,04	2,13	1693,71	33,87
Imidacloprid 350SC	L	597,40	1,90	1135,06	22,70
Mineral Oil 857g/l (Ampron)	L	23,51	3,00	70,52	1,41
Spinetoram 250 WG	kg	7365,42	1,02	7542,19	150,84
FUNGICIDES				1360,22	27,20
Potassium phosphite 400 SL	L	34,01	40,00	1360,22	27,20
PESTICIDES				59,21	1,18
Spirotetramat	L	2€960,34	0,02	59,21	1,18
CASUAL LABOUR				2879,00	57,58
Casual Labour Planting/Hour	R/Manhour	28,79	100,00	2879,00	57,58
B) HARVEST COSTS				14 682,90	293,66
Casual Labour Harvesting/Hour	R/Manhour	28,79	450,00	12 955,50	259,11
Casual Labour Sorting & Grading/Hour	R/Manhour	28,79	60,00	1 727,40	34,55
GROSS MARGIN ABOVE DIRECTLY ALLOCATABLE VARIABLE COSTS				226 435,33	4528,71
					0,00
INDIRECTLY ALLOCATABLE VARIABLE COSTS				2824,90	56,50
C) PRE-HARVEST COST				1293,30	25,87
Fuel	L	21,88	40,76	891,93	17,84
Repairs & Maintenance				401,37	8,03

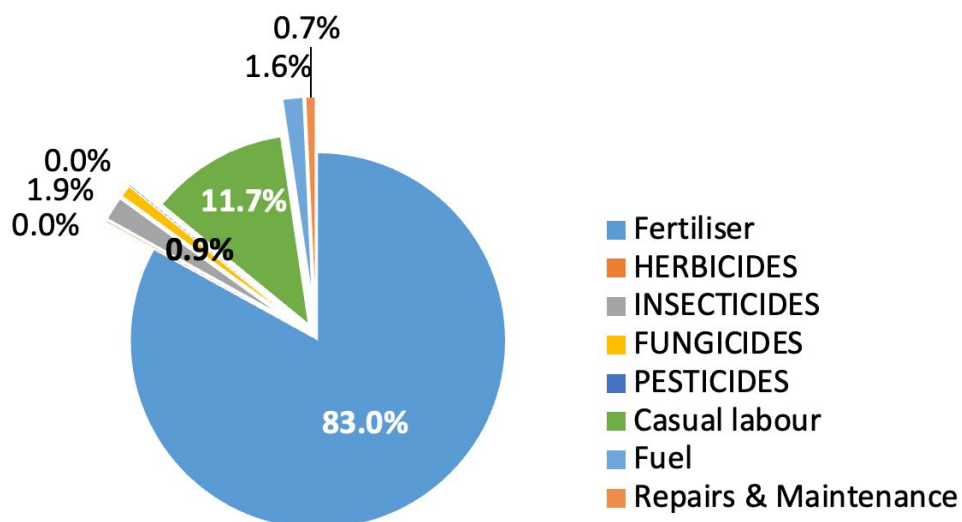
D) HARVEST COSTS				1531,60	30,63
Fuel	L	21,88	70,00	1531,60	30,63
Repairs & Maintenance				689,22	13,78
GROSS MARGIN ABOVE TOTAL ALLOCATABLE VARIABLE COSTS					4472,21

PARAMETRIC BUDGETING	
LOCAL MARKET	
Price/ ton(R)	7600,00
Quantity (ton/ha)	50,00
Gross income (R/ha)	380 000,00
Total expenditure (R/ha)	156 389,57
Gross margin (R/ha)	223 610,43

SENSITIVITY ANALYSIS					
YIELD (ton/ha)	PRICE (R/ton)				
YIELD CHANGE AT 10% INCREMENTS	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
R223 610,43	6840,00	7220,00	7600,00	7980,00	8360,00
40,00	R117 210	R132 410	R147 610	R162 810	R178 010
45,00	R151 410	R168 510	R185 610	R202 710	R219 810
50,00	R185 610	R204 610	R223 610	R242 610	R261 610
55,00	R219 810	R240 710	R261 610	R282 510	R303 410
60,00	R254 010	R276 810	R299 610	R322 410	R345 210
BREAKEVEN YIELD (ton/ha)	23	22	21	20	19

Costs Of Production	R/Ha
Fertiliser	124 084,58
HERBICIDES	57,28
INSECTICIDES	2828,78
FUNGICIDES	1360,22
PESTICIDES	59,21
Casual labour	17 561,90
Fuel	2423,53
Repairs & Maintenance	1090,59
TOTAL	149 466,08

Summary of cost of production



16. CITRUS (LEMON)

Citrus (Lemon): Irrigation Production: Year 6					
	Unit	Price Per Unit	Quantity	Per Ha	Value Per Yield Unit
GROSS INCOME			70,00	532 000,00	7 600,00
Product Income				,	
		0,00	0,00	0,00	0,00
Lemons - Local Market	Ton	7Ê600,00	70,00	532 000,00	7 600,00
MARKETING COSTS	Ton	0,00	70,00	0,00	0,00
GROSS INCOME minus MARKETING COSTS				532 000,00	7 600,00
					0,00
TOTAL ALLOCATABLE VARIABLE COSTS				217 293,09	3 104,19
DIRECTLY ALLOCATABLE VARIABLE COSTS				212 892,83	3 041,33
A) PRE-HARVEST COST					
PLANTING MATERIAL				0,00	
FERTILISER				174 751,02	2 496,44
Urea HB Granular 46%	Ton	9 982,00	2,20	21 960,40	313,72
Mono Ammonium Phosphate	Ton	17 618,00	2,70	47 568,60	679,55
Calcium Nitrate	Ton	12 375,92	2,52	31 187,31	445,53
Magnesium	Ton	15 640,00	1,48	23 147,20	330,67
Potassium Nitrate	Ton	7 851,57	1,28	10 050,01	143,57
KCL	Ton	18 150,00	2,25	40 837,50	583,39
HERBICIDES				57,28	0,82
Glyphosate	L	190,92	0,30	57,28	0,82
INSECTICIDES				19 103,21	272,90
Bacillus thuringiensis	Kg	797,04	2,13	1693,71	24,20
Imidacloprid 350SC	L	597,40	1,90	1 135,06	16,22
Mineral Oil 857g/l (Ampron)	L	23,51	3,00	70,52	1,01
Spinetoram 250 WG	kg	7 365,42	2,20	16 203,92	231,48
FUNGICIDES				1 360,22	19,43
Potassium phosphite 400 SL	L	34,01	40,00	1 360,22	19,43
PESTICIDES				59,21	0,85
Spirotetramat	L	2 960,34	0,02	59,21	0,85
CASUAL LABOUR				2 879,00	41,13
Casual Labour Spraying/Hour	R/Manhour	28,79	100,00	2 879,00	41,13
B) HARVEST COSTS				14 682,90	209,76
Casual Labour Harvesting/Hour	R/Manhour	28,79	450,00	12 955,50	185,08
Casual Labour Sorting & Grading/Hour	R/Manhour	28,79	60,00	1727,40	24,68
GROSS MARGIN ABOVE DIRECTLY ALLOCATABLE VARIABLE COSTS				319 107,17	4 558,67
					0,00
INDIRECTLY ALLOCATABLE VARIABLE COSTS				4 400,26	62,86
C) PRE-HARVEST COST				1293,30	18,48
Fuel	L	21,88	40,76	891,93	12,74
Repairs & Maintenance				401,37	5,73

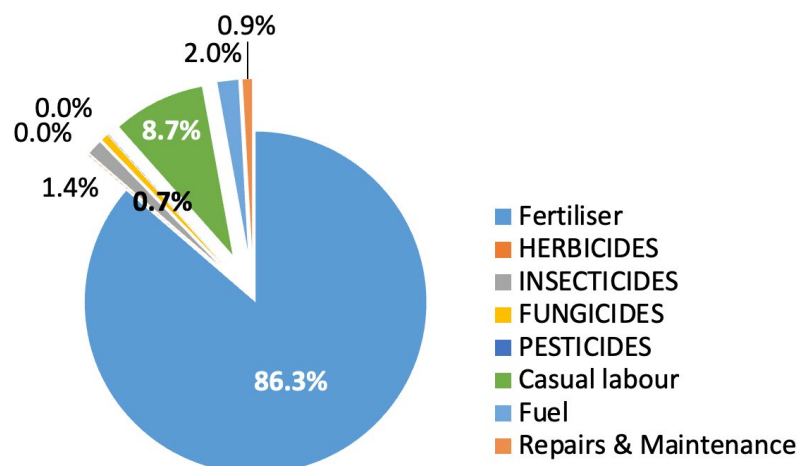
D) HARVEST COSTS				3106,96	44,39
Fuel	L	21,88	142,00	3106,96	44,39
Repairs & Maintenance				1398,13	19,97
GROSS MARGIN ABOVE TOTAL ALLOCATABLE VARIABLE COSTS				314 706,91	4495,81

PARAMETRIC BUDGETING	
LOCAL MARKET	
Price/ ton(R)	7 600,00
Quantity (ton/ha)	70,00
Gross income (R/ha)	532 000,00
Total expenditure (R/ha)	217 293,09
Gross margin (R/ha)	314 706,91

SENSITIVITY ANALYSIS					
YIELD (ton/ha)	PRICE (R/ton)				
YIELD CHANGE AT 10% INCREMENTS	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
R314 706,91	6840,00	7220,00	7600,00	7980,00	8360,00
56,00	R165 747	R187 027	R208 307	R229 587	R250 867
63,00	R213 627	R237 567	R261 507	R285 447	R309 387
70,00	R261 507	R288 107	R314 707	R341 307	R367 907
77,00	R309 387	R338 647	R367 907	R397 167	R426 427
84,00	R357 267	R389 187	R421 107	R453 027	R484 947
BREAKEVEN YIELD (ton/ha)	32	30	29	27	26

COSTS OF PRODUCTION	R/HA
Fertiliser	174 751,02
HERBICIDES	57,28
INSECTICIDES	2828,78
FUNGICIDES	1360,22
PESTICIDES	59,21
Casual labour	17 561,90
Fuel	3998,89
Repairs & Maintenance	1799,50
TOTAL	202 416,79

Summary of cost of production



17. CITRUS (LEMON)

Citrus (Lemon): Irrigation Production: Year 7					
	Unit	Price Per Unit	Quantity	Per Ha	Value Per Yield Unit
GROSS INCOME			85,00	646 000,00	7600,00
Product Income				,	
		0,00	0,00	0,00	0,00
Lemons - Local Market	Ton	7600,00	85,00	646 000,00	7600,00
MARKETING COSTS	Ton	0,00	85,00	0,00	0,00
GROSS INCOME minus MARKETING COSTS				646 000,00	7600,00
TOTAL ALLOCATABLE VARIABLE COSTS				226 174,31	2660,87
DIRECTLY ALLOCATABLE VARIABLE COSTS				221 227,05	2602,67
A) PRE-HARVEST COST					
PLANTING MATERIAL				0,00	
FERTILISER				191 746,96	2255,85
Urea HB Granular 46%	Ton	9982,00	2,20	21 960,40	258,36
Mono Ammonium Phosphate	Ton	17 618,00	2,70	47 568,60	559,63
Calcium Nitrate	Ton	12 375,92	2,52	31 187,31	366,91
Magnesium	Ton	15 640,00	1,48	23 147,20	272,32
Potassium Nitrate	Ton	7851,57	2,52	19 785,95	232,78
KCL	Ton	18 150,00	2,65	48 097,50	565,85
HERBICIDES				57,28	0,67
Glyphosate	L	190,92	0,30	57,28	0,67
INSECTICIDES				10 441,48	122,84
Bacillus thuringiensis	Kg	797,04	2,13	1693,71	19,93
Imidacloprid 350SC	L	597,40	1,90	1 135,06	13,35
Mineral Oil 857g/l (Ampron)	L	23,51	3,00	70,52	0,83
Spinetoram 250 WG	kg	7365,42	1,02	7542,19	88,73
FUNGICIDES				1360,22	16,00
Potassium phosphite 400 SL	L	34,01	40,00	1360,22	16,00
PESTICIDES				59,21	0,70
Spirotetramat	L	2960,34	0,02	59,21	0,70
CASUAL LABOUR				2879,00	33,87
Casual Labour Spraying/Hour	R/Manhour	28,79	100,00	2879,00	33,87
B) HARVEST COSTS				14 682,90	172,74
Casual Labour Harvesting/Hour	R/Manhour	28,79	450,00	12 955,50	152,42
Casual Labour Sorting & Grading/Hour	R/Manhour	28,79	60,00	1727,40	20,32
GROSS MARGIN ABOVE DIRECTLY ALLOCATABLE VARIABLE COSTS				424 772,95	4997,33
					0,00
INDIRECTLY ALLOCATABLE VARIABLE COSTS				4947,26	58,20
C) PRE-HARVEST COST				1293,30	15,22
Fuel	L	21,88	40,76	891,93	10,49
Repairs & Maintenance				401,37	4,72

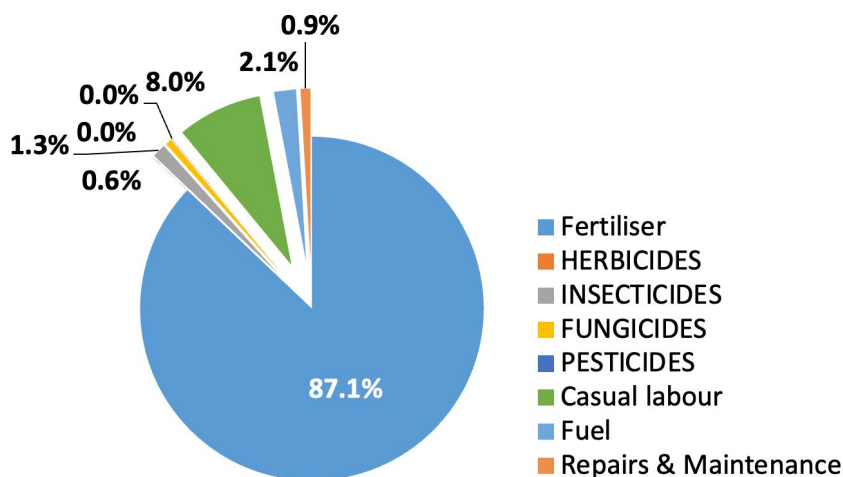
D) HARVEST COSTS				3653,96	42,99
Fuel	L	21,88	167,00	3653,96	42,99
Repairs & Maintenance				1644,28	19,34
GROSS MARGIN ABOVE TOTAL ALLOCATABLE VARIABLE COSTS					4939,13

PARAMETRIC BUDGETING	
LOCAL MARKET	
Price/ ton(R)	7600,00
Quantity (ton/ha)	85,00
Gross income (R/ha)	646 000,00
Total expenditure (R/ha)	226 174,31
Gross margin (R/ha)	419 825,69

SENSITIVITY ANALYSIS					
YIELD (ton/ha)	PRICE (R/ton)				
YIELD CHANGE AT 10% INCREMENTS	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
R419 825,69	6840,00	7220,00	7600,00	7980,00	8360,00
68,00	R238 946	R264 786	R290 626	R316 466	R342 306
76,50	R297 086	R326 156	R355 226	R384 296	R413 366
85,00	R355 226	R387 526	R419 826	R452 126	R484 426
93,50	R413 366	R448 896	R484 426	R519 956	R555 486
102,00	R471 506	R510 266	R549 026	R587 786	R626 546
BREAKEVEN YIELD (ton/ha)	33	31	30	28	27

Costs Of Production	R/Ha
Fertiliser	191 746,96
HERBICIDES	57,28
INSECTICIDES	2828,78
FUNGICIDES	1360,22
PESTICIDES	59,21
Casual labour	17 561,90
Fuel	4545,89
Repairs & Maintenance	2045,65
TOTAL	220 205,89

Summary of cost of production



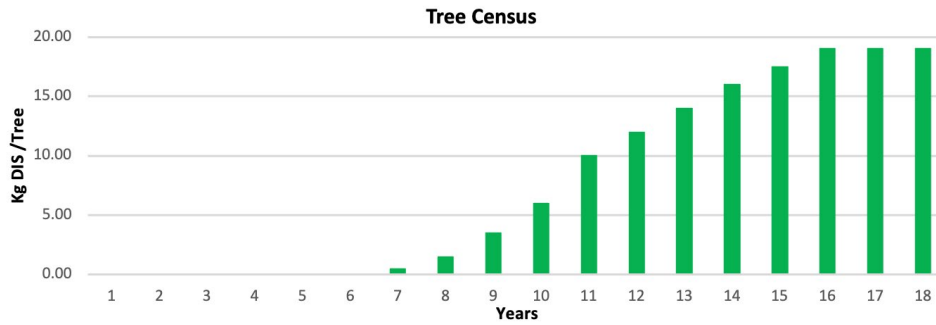
18. MACADAMIA

Macadamia Production: Year 1					
	Unit	Price Per Unit	Quantity	Per Ha	Value Per Yield Unit
GROSS INCOME			0,00	0,00	0,00
Product Income					
Macadamia nuts (Dry in-shell nuts)	Kg	R60,00	0	0,00	0,00
MARKETING COSTS		0,0%	0	0,00	0,00
GROSS INCOME minus MARKETING COSTS				0,00	0,00
TOTAL ALLOCATABLE VARIABLE COSTS				138 023,50	0,00
DIRECTLY ALLOCATABLE VARIABLE COSTS				134 452,68	0,00
A) PRE-HARVEST COST					
PLANTING MATERIAL				93 600,00	0,00
Macadamia	Tree	300,00	312,00	93 600,00	0,00
FERTILISER				20 425,25	0,00
Ammonium Sulphate	Ton	10 264,67	0,00	0,00	0,00
Supers 10.5%	kg	6,27	500,00	3 137,29	0,00
LAN (28)	Kg	4,50	40,00	179,98	0,00
KCL	Kg	7,75	8,00	62,02	0,00
Calcium Nitrate	Kg	15 831,36	0,00	0,00	0,00
Potassium Nitrate	Kg	29 665,86	0,00	0,00	0,00
Fertilisers/Fertigation	Kg	24 897,98	0,00	0,00	0,00
Turbo-31 10:1:5	Kg	12 834,20	0,00	0,00	0,00
Single Super Phosphate 10.5%	Kg	12 854,70	0,00	0,00	0,00
Maxiphos 20	Kg	19 117,14	0,00	0,00	0,00
Urea HB Granular 46%	Kg	12 968,32	0,00	0,00	0,00
KCL	Kg	17 353,50	0,00	0,00	0,00
Lime Ammonium Nitrate (28)	Kg	14 822,58	1,15	17 045,97	0,00
Dolomitic Lime	Kg	1,60	3 000,00	4 787,49	0,00
Zinc Oxide	Kg	39,89	0,75	29,92	0,00
Spraybor	Kg	65,25	0,50	32,63	0,00
PESTICIDES				98,31	0,00
Pest/Insects/Fungus	Ha	22 189,61	0,00	0,00	0,00
Cypermethrin	L	127,23	0,20	25,45	0,00
Dithane	Kg	72,86	1,00	72,86	0,00
Spinetoram 250 WG	Kg	7955,21	0,00	0,00	0,00
Spinosad	L	204,98	0,00	0,00	0,00
Lamda-cyhalothrin	L	152,40	0,00	0,00	0,00
Cadusafos	L	224,77	0,00	0,00	0,00
Dimethoate 400 EC	L	156,70	0,00	0,00	0,00
Alpha-cypermethrin	L	835,02	0,00	0,00	0,00
HERBICIDES				252,32	0,00
Paraquat 200SL	L	99,59	0,00	0,00	0,00
Gramoxone	L	74,65	1,00	74,65	0,00
Diuron	L	71,07	2,50	177,67	0,00
Glyphosate	L	145,85	0,00	0,00	0,00
FUNGICIDES				0,00	0,00
Mancozeb / Metalaxyl	Kg	177,56	0,00	0,00	0,00

Penconazole	L	596,28	0,00	0,00	0,00
CROP MANIPULATION					0,00
Pollination	Hive	850,00	0,00	0,00	0,00
CASUAL LABOUR					18 396,81
Casual labour /Land marking/Day	R/Manday	259,11	18,00	4663,98	0,00
Casual Labour Digging of holes/Day	R/Manday	259,11	18,00	4663,98	0,00
Casual Labour Planting/Hour	R/Manday	259,11	35,00	9 068,85	0,00
TRELLISSING/ NETTING STRUCTURE					0,00
Pine poles 3.6m (80-99mm) (Class 3)	Each	230,75	0,00	0,00	0,00
Wire (4mm)	500m	1399,00	0,00	0,00	0,00
Wire Round 2mm (2000m)	50KG	1470,00	0,00	0,00	0,00
PPC Cement	50KG	115,00	0,00	0,00	0,00
Nails 3 inches	kg	28,00	0,00	0,00	0,00
Stone 19 mm	40KG	29,00	0,00	0,00	0,00
Sand	40KG	29,00	0,00	0,00	0,00
Staples pre-pack 32mm x 2.50mm (25 x 1kg)	Kg	47,50	0,00	0,00	0,00
Shade net	R/Ha	178 000,00	0,00	0,00	
IRRIGATION & ELECTRICITY					1 680,00
Micro-jet Irrigation	R/mm	3,36	500,00	1 680,00	0,00
Electricity cost	Ha	17 565,62	0,00	0,00	0,00
B) HARVEST COST					0,00
CASUAL LABOUR					0,00
Casual Labour Harvesting/Hour	R/Manhour	259,11	0,00	0,00	0,00
Casual Labour Sorters	R/Manday		100,00	0,00	0,00
CONTRACT WORK					0,00
Transport produce to Market	Trip	11500,00	0,00	0,00	0,00
Transport on farm	Kg	0,00	0,00	0,00	0,00
GROSS MARGIN ABOVE DIRECTLY ALLOCATABLE VARIABLE COSTS					-134 452,68
INDIRECTLY ALLOCATABLE VARIABLE COSTS					3570,82
B) PRE-HARVEST COST					3570,82
Fuel	L	21,88	120	2625,60	0,00
Repairs & Maintenance				945,22	0,00
C) HARVEST COSTS					0,00
Fuel	L	21,88	0,00	0,00	0,00
Repairs & Maintenance				0,00	0,00
GROSS MARGIN ABOVE TOTAL ALLOCATABLE VARIABLE COSTS					-138 023,50

Tree Spacing:	8	4,00
Trees/ha:		313
Orchard size (ha):		1,00
Max yield (kg DIS/tree):		19,00

Tree Age	0	1	0	2	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Trees/ha	313	313	0	313	313	313	313	313	313	313	313	313	313	313	313	313	313	313
Kg DIS /Tree	0,00	0,00	0,00	0,00	0,00	0,00	0,50	1,50	3,50	6,00	10,00	12,00	14,00	16,00	17,50	19,00	19,00	19,00
Kg DIS/ha	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0	0	0	0	0	0	0	0	0	0	0
Productivity (%)	0,00	0,00	0,00	0,00	0,00	0,00	2,63	7,89	18,42	31,58	52,63	63,16	73,68	84,21	92,11	100,00	100,00	100,00



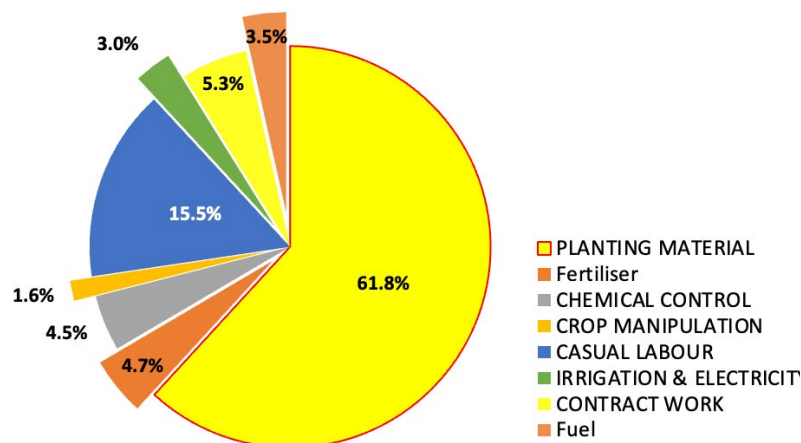
PARAMETRIC BUDGETING	
LOCAL MARKET	
Price/ ton(R)	60,00
Quantity (ton/ha)	-
Gross income (R/ha)	-
Marketing cost 12,5% Fresh Produce Market Fee	-
Total expenditure (R/ha)	138 023,50
Gross margin (R/ha)	-138 023,50

NOTES:	
1. Growing period of Crop (Months)	12
2. Growing medium	Soil
3. Plant population per HA	315

SENSITIVITY ANALYSIS					
YIELD (ton/ha)	PRICE (R/ton)				
YIELD CHANGE AT 10% INCREMENTS	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
-R138 023,50	54,00	57,00	60,00	63,00	66,00
0,00	-R138 023	-R138 023	-R138 023	-R138 023	-R138 023
0,00	-R138 023	-R138 023	-R138 023	-R138 023	-R138 023
0,00	-R138 023	-R138 023	-R138 023	-R138 023	-R138 023
0,00	-R138 023	-R138 023	-R138 023	-R138 023	-R138 023
0,00	-R138 023	-R138 023	-R138 023	-R138 023	-R138 023
BREAKEVEN YIELD (ton/ha)	2556	2421	2300	2191	2091

COSTS OF PRODUCTION	R/HA
PLANTING MATERIAL	93 600,00
Fertiliser	20 425,25
PESTICIDES	98,31
HERBICIDES	252,32
CASUAL LABOUR	18 396,81
CONTRACT WORK	0,00
FUEL	2625,60
Repairs & Maintenance	945,22
TOTAL	136 343,50

Summary of cost of production

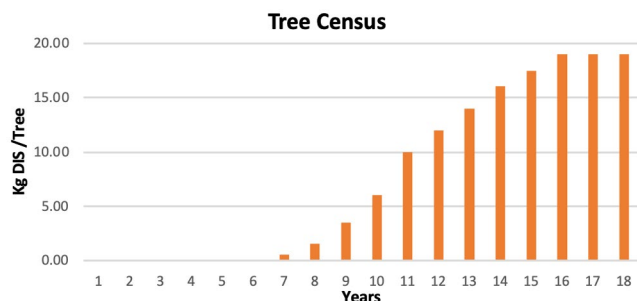


19. MACADAMIA

Macadamia Production: Year 2 -4					
	Unit	Price Per Unit	Quantity	Per Ha	Value Per Yield Unit
GROSS INCOME			156,25	9375,00	60,00
Product Income					
Macadamia nuts (Dry in-shell nuts)	Kg	R60,00	156	9375,00	60,00
MARKETING COSTS: SAMAC levy (2% per kg DIS)		2,0%	156	187,50	1,20
MARKETING COSTS: Marketing fee/Commission (8%)		8,0%	156	750,00	4,80
GROSS INCOME minus MARKETING COSTS				8437,50	54,00
TOTAL ALLOCATABLE VARIABLE COSTS				171 556,85	1097,96
DIRECTLY ALLOCATABLE VARIABLE COSTS				168 856,86	1080,68
A) PRE-HARVEST COST					
PLANTING MATERIAL				0,00	0,00
Macadamia	Tree	300,00	0,00	0,00	0,00
FERTILISER				75 803,18	485,14
Ammonium Sulphate	Ton	10 n264,67	0,00	0,00	0,00
Supers 10.5%	kg	6,27	400,00	2509,83	16,06
LAN (28)	Kg	4,50	1560,00	7019,06	44,92
KCL	Kg	7,75	320,00	2480,73	15,88
Calcium Nitrate	Kg	15 831,36	0,00	0,00	0,00
Potassium Nitrate	Kg	29 665,86	0,00	0,00	0,00
Fertilisers/Fertigation	Kg	24 897,98	0,00	0,00	0,00
Turbo-3I 10:1:5	Kg	12 834,20	0,00	0,00	0,00
Single Super Phosphate 10.5%	Kg	12 854,70	0,00	0,00	0,00
Maxiphos 20	Kg	19 117,14	0,00	0,00	0,00
Urea HB Granular 46%	Kg	12 968,32	0,00	0,00	0,00
KCL	Kg	17 353,50	0,00	0,00	0,00
Lime Ammonium Nitrate (28)	Kg	14 822,58	1,15	17 045,97	109,09
Dolomitic Lime	Kg	1,60	0,00	0,00	0,00
Zinc Oxide	Kg	39,89	354,00	14 122,48	90,38
Spraybor	Kg	65,25	500,00	32 625,12	208,80
PESTICIDES				5877,01	37,61
Pest/Insects/Fungus	Ha	22 189,61	0,00	0,00	0,00
Cypermethrin	L	127,23	10,00	1272,26	8,14
Dithane	Kg	72,86	63,20	4604,75	29,47
Spinetoram 250 WG	Kg	7955,21	0,00	0,00	0,00
Spinosad	L	204,98	0,00	0,00	0,00
Lamda-cyhalothrin	L	152,40	0,00	0,00	0,00
Cadusafos	L	224,77	0,00	0,00	0,00
Dimethoate 400 EC	L	156,70	0,00	0,00	0,00
Alpha-cypermethrin	L	835,02	0,00	0,00	0,00
HERBICIDES				2523,20	16,15
Paraquat 200SL	L	99,59	0,00	0,00	0,00
Gramoxone	L	74,65	10,00	746,53	4,78
Diuron	L	71,07	25,00	1776,66	11,37
Glyphosate	L	145,85	0,00	0,00	0,00
FUNGICIDES				0,00	0,00
Mancozeb / Metalaxyl	Kg	177,56	0,00	0,00	0,00

Mancozeb / Metalaxyl	Kg	177,56	0,00	0,00	0,00
Penconazole	L	596,28	0,00	0,00	0,00
CROP MANIPULATION				0,00	0,00
Pollination	Hive	850,00	0,00	0,00	0,00
CASUAL LABOUR				12 955,50	82,92
Casual labour Pruning & Training/Hour	R/Manhour	259,11	40	10 364,40	66,33
Casual Labour Weeding/Hour	R/Manhour	259,11	10,00	2591,10	16,58
Casual Labour Weeding/Hour	R/Manhour	259,11	0,00	0,00	0,00
TRELLISSING/ NETTING STRUCTURE				0,00	0,00
Pine poles 3.6m (80-99mm) (Class 3)	Each	230,75	0,00	0,00	0,00
Wire (4mm)	500m	1399,00	0,00	0,00	0,00
Wire Round 2mm (2000m)	50KG	1470,00	0,00	0,00	0,00
PPC Cement	50KG	115,00	0,00	0,00	0,00
Nails 3 inches	kg	28,00	0,00	0,00	0,00
Stone 19 mm	40KG	29,00	0,00	0,00	0,00
Sand	40KG	29,00	0,00	0,00	0,00
Staples pre-pack 32mm x 2.50mm (25 x 1kg)	Kg	47,50	0,00	0,00	0,00
Shade net	R/Ha	178 000,00	0,00	0,00	
IRRIGATION & ELECTRICITY				1 680,00	10,75
Micro-jet Irrigation	R/mm	3,36	500,00	1 680,00	10,75
Electricity cost	Ha	17 565,62	0,00	0,00	0,00
B) HARVEST COSTS				70 737,03	452,72
Casual Labour Harvesting/Day	R/Manday	259,11	193,00	50 008,23	320,05
Casual Labour Dehusking/Day	R/Manday	259,11	50,00	12 955,50	82,92
Casual Labour Drying & Storing/Day	R/Manday	259,11	30,00	7773,30	49,75
Inspection	Carton	0,47	0,00	0,00	0,00
Storage and Cooling	Pellet	700,00	0,00	0,00	0,00
Harvest Transporting to the Processing/Packhouse				960,94	6,15
Transport (Farm to Processor) (/ton DIS)	Trip	6150,00	0,16	960,94	6,15
GROSS MARGIN ABOVE DIRECTLY ALLOCATABLE VARIABLE COSTS				-160 419,36	-1026,68
INDIRECTLY ALLOCATABLE VARIABLE COSTS				2699,99	17,28
B) PRE-HARVEST COST				1 190,27	7,62
Fuel	L	21,88	40	875,20	5,60
Repairs & Maintenance				315,07	2,02
C) HARVEST COSTS				1509,72	9,66
Fuel	L	21,88	60,00	1312,80	8,40
Repairs & Maintenance				196,92	1,26
GROSS MARGIN ABOVE TOTAL ALLOCATABLE VARIABLE COSTS				-163 119,35	-1043,96

Tree Spacing:	8	4,00
Trees/ha:		313
Orchard size (ha):		1,00
Max yield (kg DIS/tree):		19,00



Tree Age	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Trees/ha	313	313	313	313	313	313	313	313	313	313	313	313	313	313	313	313
Kg DIS /Tree	0,00	0,00	0,00	0,00	0,50	1,50	3,50	6,00	10,00	12,00	14,00	16,00	17,50	19,00	19,00	19,00
Kg DIS/ha	0,00	0,00	0,00	0,00	156,25	469	1094	1875	3125	3750	4375	5000	5469	5938	5938	5938
Productivity (%)	0,00	0,00	0,00	0,00	2,63	7,89	18,42	31,58	52,63	63,16	73,68	84,21	92,11	100,00	100,00	100,00

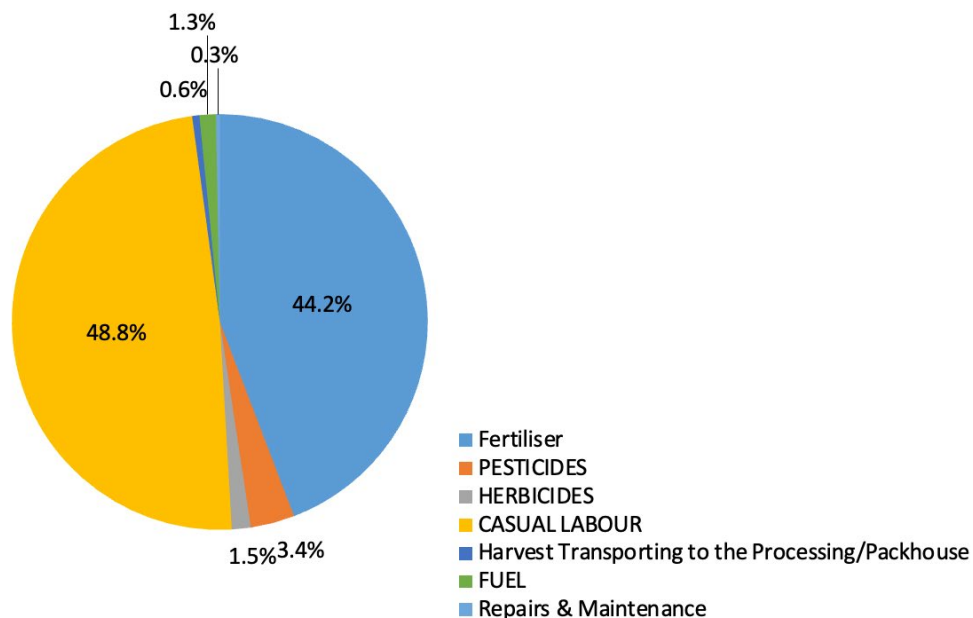
PARAMETRIC BUDGETING	
LOCAL MARKET	
Price/ ton(R)	60,00
Quantity (ton/ha)	156,25
Gross income (R/ha)	9375,00
Marketing cost 12,5% Fresh Produce Market Fee	1171,88
Total expenditure (R/ha)	171 556,85
Gross margin (R/ha)	-163 353,73

SENSITIVITY ANALYSIS					
YIELD (ton/ha)	PRICE (R/ton)				
YIELD CHANGE AT 10% INCREMENTS	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
-R163 353,73	54,00	57,00	60,00	63,00	66,00
125,00	-R164 807	-R164 432	-R164 057	-R163 682	-R163 307
140,63	-R163 963	-R163 541	-R163 119	-R162 697	-R162 276
156,25	-R163 119	-R162 651	-R162 182	-R161 713	-R161 244
171,88	-R162 276	-R161 760	-R161 244	-R160 729	-R160 213
187,50	-R161 432	-R160 869	-R160 307	-R159 744	-R159 182
BREAKEVEN YIELD (ton/ha)	3177	3010	2859	2723	2599

COSTS OF PRODUCTION	R/HA
PLANTING MATERIAL	0,00
Fertiliser	75 803,18
PESTICIDES	5877,01
HERBICIDES	2523,20
CASUAL LABOUR	83 692,53
Harvest Transporting to the Processing/Packhouse	960,94
FUEL	2188,00
Repairs & Maintenance	511,99
TOTAL	171 556,85

NOTES:	
1. Growing period of Crop (Months)	12
2. Growing medium	Soil
3. Plant population	313
4. Lugs picked-up per ha (15 lugs/person/day@ 20kg NIH/lug or 9.72kg DIS)	
5. Transport (Field to On-Farm Dehusker)	
6. Transport (Farm to Processor) (ton DIS)	

Summary of cost of production

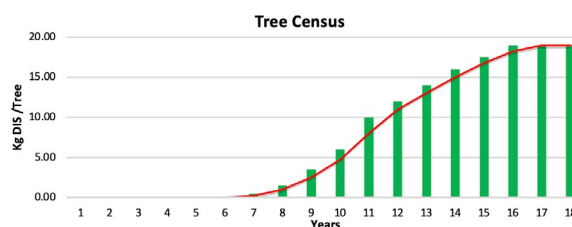


20. MACADAMIA

Macadamia Production: Year 5-7					
	Unit	Price Per Unit	Quantity	Per Ha	Value Per Yield Unit
GROSS INCOME			1875,00	112 500,00	60,00
Product Income					
Macadamia nuts (Dry in-shell nuts)	Kg	R60,00	1875	112 500,00	60,00
MARKETING COSTS: SAMAC levy (2% per kg DIS)		2,0%	1875	2250,00	1,20
MARKETING COSTS: Marketing fee/Commission (8%)		8,0%	1875	9000,00	4,80
GROSS INCOME minus MARKETING COSTS				101 250,00	54,00
TOTAL ALLOCATABLE VARIABLE COSTS				129 419,60	69,02
DIRECTLY ALLOCATABLE VARIABLE COSTS				127 348,66	67,92
A) PRE-HARVEST COST					
PLANTING MATERIAL				0,00	0,00
Macadamia	Tree	300,00	0,00	0,00	0,00
FERTILISER				40 142,86	21,41
Ammonium Sulphate	Ton	10 264,67	0,00	0,00	0,00
Supers 10.5%	kg	6,27	100,00	627,46	0,33
LAN (28)	Kg	4,50	212,00	953,87	0,51
KCL	Kg	7,75	150,00	1162,84	0,62
Calcium Nitrate	Kg	15 831,36	0,00	0,00	0,00
Potassium Nitrate	Kg	29 665,86	0,00	0,00	0,00
Fertilisers/Fertigation	Kg	24 897,98	0,00	0,00	0,00
Turbo-31 10:1:5	Kg	12 834,20	0,00	0,00	0,00
Single Super Phosphate 10.5%	Kg	12 854,70	0,00	0,00	0,00
Maxiphos 20	Kg	19 117,14	0,00	0,00	0,00
Urea HB Granular 46%	Kg	12 968,32	0,00	0,00	0,00
KCL	Kg	17 353,50	0,00	0,00	0,00
Lime Ammonium Nitrate (28)	Kg	14 822,58	1,15	17 045,97	9,09
Dolomitic Lime	Kg	1,60	10 000,00	15 958,30	8,51
Zinc Oxide	Kg	39,89	48,00	1 914,91	1,02
Spraybor	Kg	65,25	38,00	2479,51	1,32
PESTICIDES				10 177,44	5,43
Pest/Insects/Fungus	Ha	22 189,61	0,00	0,00	0,00
Cypermethrin	L	127,23	17,00	2 162,84	1,15
Dithane	Kg	72,86	110,00	8 014,60	4,27
Spinetoram 250 WG	Kg	7 955,21	0,00	0,00	0,00
Spinosad	L	204,98	0,00	0,00	0,00
Lamda-cyhalothrin	L	152,40	0,00	0,00	0,00
Cadusafos	L	224,77	0,00	0,00	0,00
Dimethoate 400 EC	L	156,70	0,00	0,00	0,00
Alpha-cypermethrin	L	835,02	0,00	0,00	0,00
HERBICIDES				2 523,20	1,35
Paraquat 200SL	L	99,59	0,00	0,00	0,00
Gramoxone	L	74,65	10,00	746,53	0,40
Diuron	L	71,07	25,00	1776,66	0,95
Glyphosate	L	145,85	0,00	0,00	0,00

FUNGICIDES				0,00	0,00
Mancozeb / Metalaxyl	Kg	177,56	0,00	0,00	0,00
Penconazole	L	596,28	0,00	0,00	0,00
CROP MANIPULATION				0,00	0,00
Pollination	Hive	850,00	0,00	0,00	0,00
CASUAL LABOUR				1 439,50	0,77
Casual labour Pruning & Training/Hour	R/Manhour	28,79	40	1 151,60	0,61
Casual Labour Weeding/Hour	R/Manhour	28,79	10,00	287,90	0,15
Casual Labour Weeding/Hour	R/Manhour	259,11	0,00	0,00	0,00
TRELLISSING/ NETTING STRUCTURE				0,00	0,00
Pine poles 3.6m (80-99mm) (Class 3)	Each	230,75	0,00	0,00	0,00
Wire (4mm)	500m	1 399,00	0,00	0,00	0,00
Wire Round 2mm (2000m)	50KG	1 470,00	0,00	0,00	0,00
PPC Cement	50KG	1 15,00	0,00	0,00	0,00
Nails 3 inches	kg	28,00	0,00	0,00	0,00
Stone 19 mm	40KG	29,00	0,00	0,00	0,00
Sand	40KG	29,00	0,00	0,00	0,00
Staples pre-pack 32mm x 2.50mm (25 x 1kg)	Kg	47,50	0,00	0,00	0,00
Shade net	R/Ha	178 000,00	0,00	0,00	
IRRIGATION & ELECTRICITY				1 680,00	0,90
Micro-jet Irrigation	R/mm	3,36	500,00	1 680,00	0,90
Electricity cost	Ha	17 565,62	0,00	0,00	0,00
B) HARVEST COSTS				59 854,41	31,92
Casual Labour Harvesting/Day	R/Manday	259,11	175,00	45 344,25	24,18
Casual Labour Dehusking/Day	R/Manday	259,11	34,00	8 809,74	4,70
Casual Labour Drying & Storing/Day	R/Manday	259,11	22,00	5 700,42	3,04
Inspection	Carton	0,47	0,00	0,00	0,00
Storage and Cooling	Pellet	700,00	0,00	0,00	0,00
Harvest Transporting to the Processing/Packhouse				11 531,25	6,15
Transport (Farm to Processor) (/ton DIS)	Trip	6 150,00	1,88	11 531,25	6,15
Transport on farm	Kg	0,00	0,00	0,00	0,00
GROSS MARGIN ABOVE DIRECTLY ALLOCATABLE VARIABLE COSTS				-26 098,66	-13,92
INDIRECTLY ALLOCATABLE VARIABLE COSTS				2 070,94	1,10
B) PRE-HARVEST COST				1 190,27	0,63
Fuel	L	21,88	40	875,20	0,47
Repairs & Maintenance				315,07	0,17
C) HARVEST COSTS				880,67	0,47
Fuel	L	21,88	35,00	765,80	0,41
Repairs & Maintenance				114,87	0,06
GROSS MARGIN ABOVE TOTAL ALLOCATABLE VARIABLE COSTS				-28 169,60	-15,02

Tree Spacing:	8	4,00
Trees/ha:		313
Orchard size (ha):		1,00
Max yield (kg DIS/tree):		19,00



Tree Age	0	1	0	2	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Trees/ha	313	313	0	313	313	313	313	313	313	313	313	313	313	313	313	313	313	313
Kg DIS /Tree	0,00	0,00	0,00	0,00	0,00	0,00	0,50	1,50	3,50	6,00	10,00	12,00	14,00	16,00	17,50	19,00	19,00	19,00
Kg DIS/ha	0,00	0,00	0,00	0,00	0,00	0,00	156,25	469	1094	1875	3125	3750	4375	5000	5469	5938	5938	5938
Productivity (%)	0,00	0,00	0,00	0,00	0,00	0,00	2,63	7,89	18,42	31,58	52,63	63,16	73,68	84,21	92,11	100,00	100,00	100,00

PARAMETRIC BUDGETING	
LOCAL MARKET	
Price/ ton(R)	60,00
Quantity (ton/ha)	1875,00
Gross income (R/ha)	112 500,00
Marketing cost 12,5% Fresh Produce Market Fee	14 062,50
Total expenditure (R/ha)	129 419,60
Gross margin (R/ha)	-30 982,10

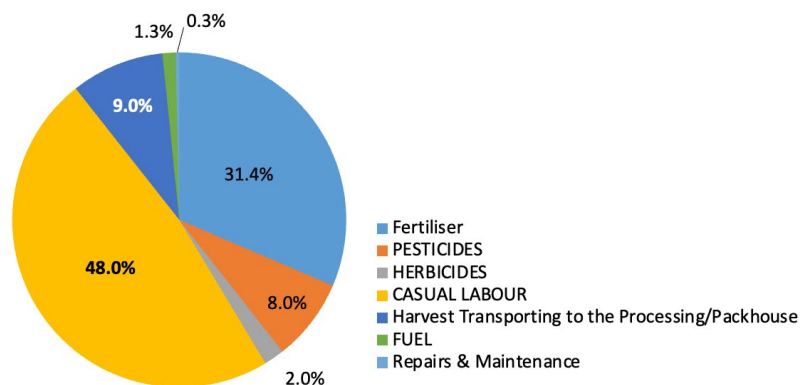
NOTES:	
1. Growing period of Crop (Months)	12
2. Growing medium	Soil
3. Plant population	313
4. Lugs picked-up per ha (15 lugs/person/day@ 20kg NIH/lug or 9.72kg DIS)	
5. Transport (Field to On-Farm Dehusker)	

PARAMETRIC BUDGETING	
LOCAL MARKET	
Price/ ton(R)	60,00
Quantity (ton/ha)	1875,00
Gross income (R/ha)	112 500,00
Marketing cost 12,5% Fresh Produce Market Fee	14 062,50
Total expenditure (R/ha)	129 419,60
Gross margin (R/ha)	-30 982,10

SENSITIVITY ANALYSIS					
YIELD (ton/ha)	PRICE (R/ton)				
YIELD CHANGE AT 10% INCREMENTS	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
-R30 982,10	54,00	57,00	60,00	63,00	66,00
1500,00	-R48 420	-R43 920	-R39 420	-R34 920	-R30 420
1687,50	-R38 295	-R33 232	-R28 170	-R23 107	-R18 045
1875,00	-R28 170	-R22 545	-R16 920	-R11 295	-R5670
2062,50	-R18 045	-R11 857	-R5 670	R518	R6705
2250,00	-R7 920	-R1170	R5580	R12 330	R19 080
BREAKEVEN YIELD (ton/ha)	2397	2271	2157	2054	1961

COSTS OF PRODUCTION	R/HA
PLANTING MATERIAL	0,00
Fertiliser	40 142,86
PESTICIDES	10 177,44
HERBICIDES	2523,20
CASUAL LABOUR	61 293,91
Harvest Transporting to the Processing/Packhouse	11 531,25
FUEL	1641,00
Repairs & Maintenance	429,94
TOTAL	127 739,60

Summary of cost of production



20. MACADAMIA

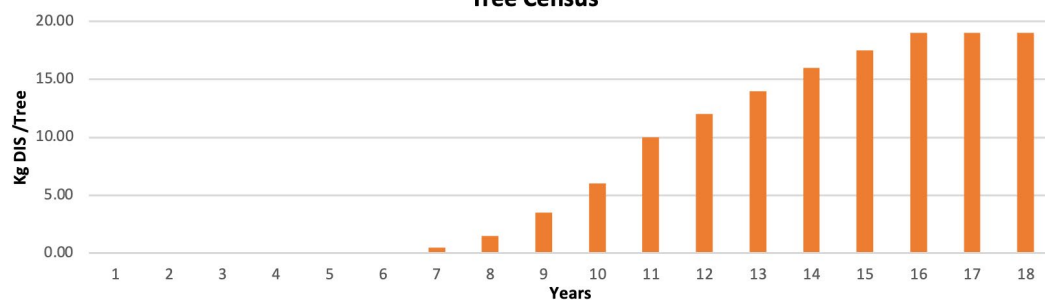
Macadamia Production: Year 8-9					
	Unit	Price Per Unit	Quantity	Per Ha	Value Per Yield Unit
GROSS INCOME			3 750,00	225 000,00	60,00
Product Income					
Macadamia nuts (Dry in-shell nuts)	Kg	R60,00	3750	225 000,00	60,00
MARKETING COSTS: SAMAC levy (2% per kg DIS)		2,0%	3750	4500,00	1,20
MARKETING COSTS: Marketing fee/Commission (8%)		8,0%	3750	18 000,00	4,80
GROSS INCOME minus MARKETING COSTS				202 500,00	54,00
TOTAL ALLOCATABLE VARIABLE COSTS				155 951,03	41,59
DIRECTLY ALLOCATABLE VARIABLE COSTS				154 200,63	41,12
A) PRE-HARVEST COST					
PLANTING MATERIAL				0,00	0,00
Macadamia	Tree	300,00	0,00	0,00	0,00
FERTILISER				41 618,43	11,10
Ammonium Sulphate	Ton	10 264,67	0,00	0,00	0,00
Supers 10.5%	kg	6,27	175,00	1 098,05	0,29
LAN (28)	Kg	4,50	244,00	1097,85	0,29
KCL	Kg	7,75	240,00	1860,55	0,50
Calcium Nitrate	Kg	15 831,36	0,00	0,00	0,00
Potassium Nitrate	Kg	29 665,86	0,00	0,00	0,00
Fertilisers/Fertigation	Kg	24 897,98	0,00	0,00	0,00
Turbo-31 10:1:5	Kg	12 834,20	0,00	0,00	0,00
Single Super Phosphate 10.5%	Kg	12 854,70	0,00	0,00	0,00
Maxiphos 20	Kg	19 117,14	0,00	0,00	0,00
Urea HB Granular 46%	Kg	12 968,32	0,00	0,00	0,00
KCL	Kg	17 353,50	0,00	0,00	0,00
Lime Ammonium Nitrate (28)	Kg	14 822,58	1,15	17 045,97	4,55
Dolomitic Lime	Kg	1,60	10 000,00	15 958,30	4,26
Zinc Oxide	Kg	39,89	57,00	2 273,96	0,61
Spraybor	Kg	65,25	35,00	2 283,76	0,61
PESTICIDES				13 543,03	3,61
Pest/Insects/Fungus	Ha	22 189,61	0,00	0,00	0,00
Cypermethrin	L	127,23	32,00	4 071,23	1,09
Dithane	Kg	72,86	130,00	9 471,80	2,53
Spinetoram 250 WG	Kg	7 955,21	0,00	0,00	0,00
Spinosad	L	204,98	0,00	0,00	0,00
Lamda-cyhalothrin	L	152,40	0,00	0,00	0,00
Cadusafos	L	224,77	0,00	0,00	0,00
Dimethoate 400 EC	L	156,70	0,00	0,00	0,00
Alpha-cypermethrin	L	835,02	0,00	0,00	0,00
HERBICIDES				2 523,20	0,67
Paraquat 200SL	L	99,59	0,00	0,00	0,00
Gramoxone	L	74,65	10,00	746,53	0,20
Diuron	L	71,07	25,00	1 776,66	0,47
Glyphosate	L	145,85	0,00	0,00	0,00
FUNGICIDES				0,00	0,00

CROP MANIPULATION				0,00	0,00
Pollination	Hive	850,00	0,00	0,00	0,00
CASUAL LABOUR				14 251,05	3,80
Casual labour Pruning & Training/Hour	R/Manhour	259,11	40	10 364,40	2,76
Casual Labour Weeding/Hour	R/Manhour	259,11	15,00	3886,65	1,04
Casual Labour Weeding/Hour	R/Manhour	259,11	0,00	0,00	0,00
TRELLISSING/ NETTING STRUCTURE				0,00	0,00
Pine poles 3.6m (80-99mm) (Class 3)	Each	230,75	0,00	0,00	0,00
Wire (4mm)	500m	1399,00	0,00	0,00	0,00
Wire Round 2mm (2000m)	50KG	1470,00	0,00	0,00	0,00
PPC Cement	50KG	115,00	0,00	0,00	0,00
Nails 3 inches	kg	28,00	0,00	0,00	0,00
Stone 19 mm	40KG	29,00	0,00	0,00	0,00
Sand	40KG	29,00	0,00	0,00	0,00
Staples pre-pack 32mm x 2.50mm (25 x 1kg)	Kg	47,50	0,00	0,00	0,00
Shade net	R/Ha	178 000,00	0,00	0,00	
IRRIGATION & ELECTRICITY				1680,00	0,45
Micro-jet Irrigation	R/mm	3,36	500,00	1680,00	0,45
Electricity cost	Ha	17 565,62	0,00	0,00	0,00
B) HARVEST COSTS				57 522,42	15,34
Casual Labour Harvesting/Day	R/Manday	259,11	165,00	42 753,15	11,40
Casual Labour Dehusking/Day	R/Manday	259,11	42,00	10 882,62	2,90
Casual Labour Drying & Storing/Day	R/Manday	259,11	15,00	3886,65	1,04
Inspection	Carton	0,47	0,00	0,00	0,00
Storage and Cooling	Pellet	700,00	0,00	0,00	0,00
Harvest Transporting to the Processing/Packhouse				23 062,50	6,15
Transport (Farm to Processor) (/ton DIS)	Trip	6150,00	3,75	23 062,50	6,15
Transport on farm	Kg	0,00	0,00	0,00	0,00
GROSS MARGIN ABOVE DIRECTLY ALLOCATABLE VARIABLE COSTS				48 299,37	12,88
INDIRECTLY ALLOCATABLE VARIABLE COSTS				150,40	0,47
B) PRE-HARVEST COST				743,92	0,20
Fuel	L	21,88	25	547,00	0,15
Repairs & Maintenance				196,92	0,05
C) HARVEST COSTS				1006,48	0,27
Fuel	L	21,88	40,00	875,20	0,23
Repairs & Maintenance				131,28	0,04
GROSS MARGIN ABOVE TOTAL ALLOCATABLE VARIABLE COSTS				46 548,97	12,41

Tree Spacing:	8	4,00
Trees/ha:		313
Orchard size (ha):		1,00
Max yield (kg DIS/tree):		19,00

Tree Age	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Trees/ha	313	313	313	313	313	313	313	313	313	313	313	313	313	313	313	313
Kg DIS /Tree	0,00	0,00	0,00	0,00	0,50	1,50	3,50	6,00	10,00	12,00	14,00	16,00	17,50	19,00	19,00	19,00
Kg DIS/ha	0,00	0,00	0,00	0,00	156,25	469	1094	1875	3125	3750	4375	5000	5469	5938	5938	5938
Productivity (%)	0,00	0,00	0,00	0,00	2,63	7,89	18,42	31,58	52,63	63,16	73,68	84,21	92,11	100,00	100,00	100,00

Tree Census



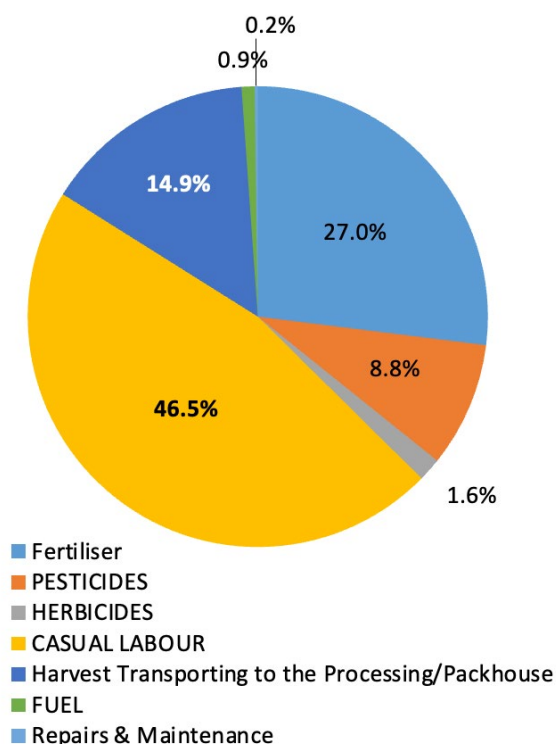
PARAMETRIC BUDGETING	
LOCAL MARKET	
Price/ ton(R)	60,00
Quantity (ton/ha)	3750,00
Gross income (R/ha)	225 000,00
Marketing cost 12,5% Fresh Produce Market Fee	28 125,00
Total expenditure (R/ha)	155 951,03
Gross margin (R/ha)	40 923,97

NOTES:	
1. Growing period of Crop (Months)	12
2. Growing medium	Soil
3. Plant population	313
4. Lugs picked-up per ha (15 lugs/person/day@ 20kg NIH/lug or 9.72kg DIS)	
5. Transport (Field to On-Farm Dehusker)	

SENSITIVITY ANALYSIS					
YIELD (ton/ha)	PRICE (R/ton)				
YIELD CHANGE AT 10% INCREMENTS	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
R40 923,97	54,00	57,00	60,00	63,00	66,00
3000,00	R6049	R15 049	R24 049	R33 049	R42 049
3375,00	R26 299	R36 424	R46 549	R56 674	R66 799
3750,00	R46 549	R57 799	R69 049	R80 299	R91 549
4125,00	R66 799	R79 174	R91 549	R103 924	R116 299
4500,00	R87 049	R100 549	R114 049	R127 549	R141 049
BREAKEVEN YIELD (ton/ha)	2888	2736	2599	2475	2 363

COSTS OF PRODUCTION	R/HA
PLANTING MATERIAL	0,00
Fertiliser	41 618,43
PESTICIDES	13 543,03
HERBICIDES	2 523,20
CASUAL LABOUR	71 773,47
Harvest Transporting to the Processing/Packhouse	23 062,50
FUEL	1 422,20
Repairs & Maintenance	328,20
TOTAL	154 271,03

Summary of cost of production

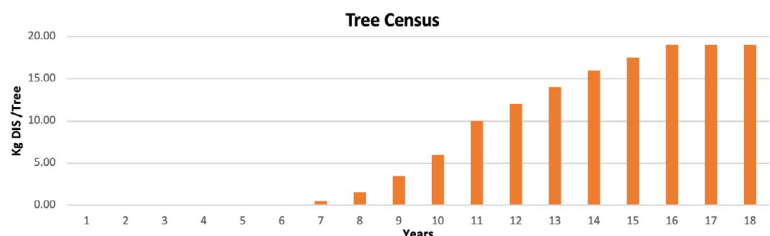


20. MACADAMIA

Macadamia Production: Year 10-20					
	Unit	Price Per Unit	Quantity	Per Ha	Value Per Yield Unit
GROSS INCOME			5 937,50	356 250,00	60,00
Product Income					
Macadamia nuts (Dry in-shell nuts)	Kg	R60,00	5 938	356 250,00	60,00
MARKETING COSTS: SAMAC levy (2% per kg DIS)		2,0%	5 938	7 125,00	1,20
MARKETING COSTS: Marketing fee/Commission (8%)		8,0%	5 938	28 500,00	4,80
GROSS INCOME minus MARKETING COSTS				320 625,00	54,00
TOTAL ALLOCATABLE VARIABLE COSTS				154 991,70	26,10
DIRECTLY ALLOCATABLE VARIABLE COSTS				153 740,16	25,89
A) PRE-HARVEST COST					
PLANTING MATERIAL				0,00	0,00
Macadamia	Tree	300,00	0,00	0,00	0,00
FERTILISER				39 491,51	6,65
Ammonium Sulphate	Ton	10 264,67	0,00	0,00	0,00
Supers 10.5%	kg	6,27	115,00	721,58	0,12
LAN (28)	Kg	4,50	187,00	841,39	0,14
KCL	Kg	7,75	211,00	1635,73	0,28
Calcium Nitrate	Kg	15 831,36	0,00	0,00	0,00
Potassium Nitrate	Kg	29 665,86	0,00	0,00	0,00
Fertilisers/Fertigation	Kg	24 897,98	0,00	0,00	0,00
Turbo-31 10:1:5	Kg	12 834,20	0,00	0,00	0,00
Single Super Phosphate 10.5%	Kg	12 854,70	0,00	0,00	0,00
Maxiphos 20	Kg	19 117,14	0,00	0,00	0,00
Urea HB Granular 46%	Kg	12 968,32	0,00	0,00	0,00
KCL	Kg	17 353,50	0,00	0,00	0,00
Lime Ammonium Nitrate (28)	Kg	14 822,58	1,15	17 045,97	2,87
Dolomitic Lime	Kg	1,60	10 000,00	15 958,30	2,69
Zinc Oxide	Kg	39,89	35,00	1 396,29	0,24
Spraybor	Kg	65,25	29,00	1 892,26	0,32
PESTICIDES				12 394,65	2,09
Pest/Insects/Fungus	Ha	22 189,61	0,00	0,00	0,00
Cypermethrin	L	127,23	35,00	4 452,91	0,75
Dithane	Kg	72,86	109,00	7 941,74	1,34
Spinetoram 250 WG	Kg	7 955,21	0,00	0,00	0,00
Spinosad	L	204,98	0,00	0,00	0,00
Lamda-cyhalothrin	L	152,40	0,00	0,00	0,00
Cadusafos	L	224,77	0,00	0,00	0,00
Dimethoate 400 EC	L	156,70	0,00	0,00	0,00
Alpha-cypermethrin	L	835,02	0,00	0,00	0,00
HERBICIDES				1 990,20	0,34
Paraquat 200SL	L	99,59	0,00	0,00	0,00
Gramoxone	L	74,65	10,00	746,53	0,13
Diuron	L	71,07	17,50	1 243,66	0,21
Glyphosate	L	145,85	0,00	0,00	0,00
FUNGICIDES				0,00	0,00

Mancozeb / Metalaxyl	Kg	177,56	0,00	0,00	0,00
Penconazole	L	596,28	0,00	0,00	0,00
CROP MANIPULATION				0,00	0,00
Pollination	Hive	850,00	0,00	0,00	0,00
CASUAL LABOUR				11 919,06	2,01
Casual labour Pruning & Training/Hour	R/Manhour	259,11	26	6 736,86	1,13
Casual Labour Weeding/Hour	R/Manhour	259,11	20,00	5 182,20	0,87
Casual Labour Weeding/Hour	R/Manhour	259,11	0,00	0,00	0,00
TRELLISSING/ NETTING STRUCTURE				0,00	0,00
Pine poles 3.6m (80-99mm) (Class 3)	Each	230,75	0,00	0,00	0,00
Wire (4mm)	500m	1 399,00	0,00	0,00	0,00
Wire Round 2mm (2000m)	50KG	1 470,00	0,00	0,00	0,00
PPC Cement	50KG	115,00	0,00	0,00	0,00
Nails 3 inches	kg	28,00	0,00	0,00	0,00
Stone 19 mm	40KG	29,00	0,00	0,00	0,00
Sand	40KG	29,00	0,00	0,00	0,00
Staples pre-pack 32mm x 2.50mm (25 x 1kg)	Kg	47,50	0,00	0,00	0,00
Shade net	R/Ha	178 000,00	0,00	0,00	
IRRIGATION & ELECTRICITY				1 680,00	0,28
Micro-jet Irrigation	R/mm	3,36	500,00	1 680,00	0,28
Electricity cost	Ha	17 565,62	0,00	0,00	0,00
B) HARVEST COSTS				49 749,12	8,38
Casual Labour Harvesting/Day	R/Manday	259,11	150,00	38 866,50	6,55
Casual Labour Dehusking/Day	R/Manday	259,11	32,00	8 291,52	1,40
Casual Labour Drying & Storing/Day	R/Manday	259,11	10,00	2 591,10	0,44
Inspection	Carton	0,47	0,00	0,00	0,00
Storage and Cooling	Pellet	700,00	0,00	0,00	0,00
Harvest Transporting to the Processing/Packhouse				36 515,63	6,15
Transport (Farm to Processor) (/ton DIS)	Trip	6 150,00	5,94	36 515,63	6,15
Transport on farm	Kg	0,00	0,00	0,00	0,00
GROSS MARGIN ABOVE DIRECTLY ALLOCATABLE VARIABLE COSTS					28,11
INDIRECTLY ALLOCATABLE VARIABLE COSTS				1 251,54	0,21
B) PRE-HARVEST COST				446,35	0,08
Fuel	L	21,88	15	328,20	0,06
Repairs & Maintenance				118,15	0,02
C) HARVEST COSTS				805,18	0,14
Fuel	L	21,88	32,00	700,16	0,12
Repairs & Maintenance				105,02	0,02
GROSS MARGIN ABOVE TOTAL ALLOCATABLE VARIABLE COSTS					27,90

Tree Spacing:	8	4,00
Trees/ha:		313
Orchard size (ha):		1,00
Max yield (kg DIS/tree):		19,00



Tree Age	0	1	0	2	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Trees/ha	313	313	0	313	313	313	313	313	313	313	313	313	313	313	313	313	313	313
Kg DIS /Tree	0,00	0,00	0,00	0,00	0,00	0,00	0,50	1,50	3,50	6,00	10,00	12,00	14,00	16,00	17,50	19,00	19,00	19,00
Kg DIS/ha	0,00	0,00	0,00	0,00	0,00	0,00	156,25	469	1094	1875	3125	3750	4375	5000	5469	5938	5938	5938
Productivity (%)	0,00	0,00	0,00	0,00	0,00	0,00	2,63	7,89	18,42	31,58	52,63	63,16	73,68	84,21	92,11	100,00	100,00	100,00

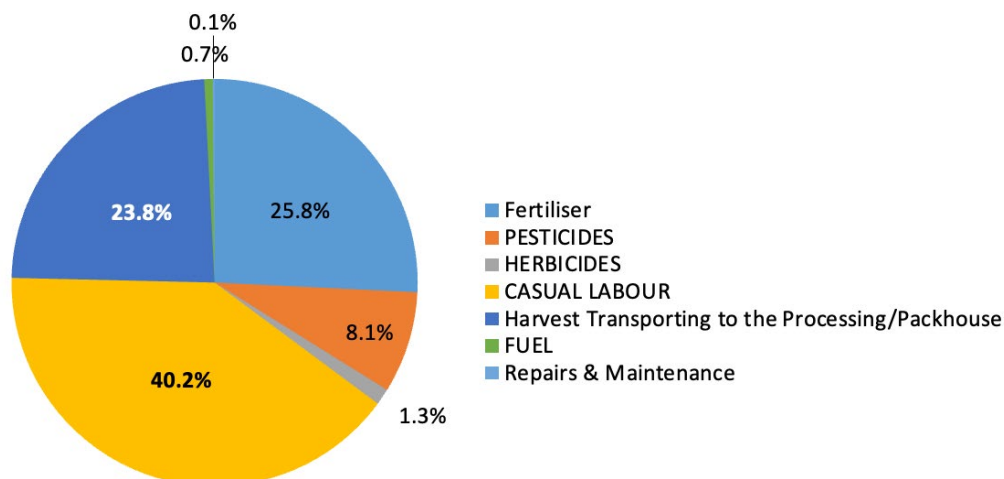
PARAMETRIC BUDGETING	
LOCAL MARKET	
Price/ ton(R)	60,00
Quantity (ton/ha)	5 937,50
Gross income (R/ha)	356 250,00
Marketing cost 12,5% Fresh Produce Market Fee	44 531,25
Total expenditure (R/ha)	154 991,70
Gross margin (R/ha)	156 727,05

NOTES:	
1. Growing period of Crop (Months)	12
2. Growing medium	Soil
3. Plant population	313
4. Lugs picked-up per ha (15 lugs/person/day@ 20kg NIH/lug or 9.72kg DIS)	
5. Transport (Field to On-Farm Dehusker)	

SENSITIVITY ANALYSIS					
YIELD (ton/ha)	PRICE (R/ton)				
YIELD CHANGE AT 10% INCREMENTS	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
R156 727,05	54,00	57,00	60,00	63,00	66,00
4750,00	R101 508	R115 758	R130 008	R144 258	R158 508
5343,75	R133 571	R149 602	R165 633	R181 665	R197 696
5937,50	R165 633	R183 446	R201 258	R219 071	R236 883
6531,25	R197 696	R217 290	R236 883	R256 477	R276 071
7125,00	R229 758	R251 133	R272 508	R293 883	R315 258
BREAKEVEN YIELD (ton/ha)	2 870	2719	2583	2460	2 348

COSTS OF PRODUCTION	R/HA
PLANTING MATERIAL	0,00
Fertiliser	39 491,51
PESTICIDES	12 394,65
HERBICIDES	1990,20
CASUAL LABOUR	61 668,18
Harvest Transporting to the Processing/Packhouse	36 515,63
FUEL	1 028,36
Repairs & Maintenance	223,18
TOTAL	153 311,70

Summary of cost of production



20. MANGOES

Mangoes Production: Year 1						
	Unit	Price Per Unit	Qty Per Ha	Value Per Ha	Value Per Yield Unit	
GROSS INCOME (A)	Ton	11 500,00	0,00	0,00	0,00	
DIRECTLY ALLOCATED VARIABLE COSTS *						
PRE-HARVEST COST (B)						
Contract Work (Clearing)	Ha	9 083,50	1,00	9 083,50	0,00	
Plant Material						
Mangoes - Plant	Each	185,60	420,00	77 949,90	0,00	
	Mangoes - Transport/plant	Each	32,80	420,00	13 775,42	0,00
Fertilizer						
	LAN 28%	Ton	8 321,72	0,09	748,96	0,00
	Supers 10.5%	Ton	7 012,50	0,18	1 262,25	0,00
	Dolomitic Lime	Ton	1 690,00	2,50	4 225,00	0,00
Herbicides						
	Diuron 800 SC	Litre	248,70	4,00	994,82	0,00
	Roundup	Litre	193,84	7,50	1 453,80	0,00
Micro-jet irrigation	mm	10,55	775,00	8 176,25	0,00	
Casual Labour (9 hours per day)						
	Measure Pits	Hour	28,79	22,50	647,78	0,00
	Dig Holes	Hour	28,79	364,50	10 493,96	0,00
	Planting	Hour	28,79	94,50	2 720,66	0,00
	Make Tree Dams	Hour	28,79	18,00	518,22	0,00
	Replanting	Hour	28,79	184,50	5 311,76	0,00
	Hoeing	Hour	28,79	184,50	5 311,76	0,00
	Fertilization	Hour	28,79	4,50	129,56	0,00
	Water Application	Hour	28,79	36,00	1 036,44	0,00
TOTAL (B)				143 840,00	0,00	
HARVEST COSTS (C)						
				0,00	0,00	
	TOTAL DIRECTLY ALLOCATED VARIABLE COSTS (B + C = D)			143 840,00	0,00	
INDIRECTLY ALLOCATED VARIABLE COSTS						
PRE-HARVEST COST (E)						
Fuel	Litre	21,88	80,00	1750,40	0,00	
Repairs & Maintenance				1575,36	0,00	
TOTAL (E)				3325,76	0,00	
TOTAL INDIRECTLY ALLOCATED VARIABLE COSTS (E)						
				3325,76	0,00	
TOTAL ALLOCATED VARIABLE COSTS (D + E = F)				147 165,76	0,00	
GROSS MARGIN ABOVE TOTAL ALLOCATED VARIABLE COSTS (A - F)						
					0,00	
TOTAL PRE-HARVEST COSTS (B + E)				147 165,76	0,00	
TOTAL HARVEST COSTS (C)				0,00	0,00	

21. MANGOES

Mangoes Irrigation Production: Year 2						
		Unit	Price Per Unit	Qty Per Ha	Value Per Ha	Value Per Yield Unit
GROSS INCOME (A)		Ton	11 500,00	0,00	0,00	0,00
DIRECTLY ALLOCATED VARIABLE COSTS *						
PRE-HARVEST COST (B)						
Fertilizer						
	LAN 28%	Ton	8 321,72	0,18	1 497,91	0,00
Herbicides						
	Diuron 800 SC	Litre	248,70	4,00	994,82	0,00
	Roundup	Litre	193,84	7,50	1 453,80	0,00
Micro-jet irrigation		mm	10,55	775,00	8 176,25	0,00
Casual Labour (9 hours per day)						
	Hoeing	Hour	28,79	184,50	5 311,76	0,00
	Fertilization	Hour	28,79	4,50	129,56	0,00
	Water Application	Hour	28,79	36,00	1 036,44	0,00
TOTAL (B)					18 600,53	0,00
HARVEST COSTS (C)					0,00	0,00
	TOTAL DIRECTLY ALLOCATED VARIABLE COSTS (B + C = D)				18 600,53	0,00
INDIRECTLY ALLOCATED VARIABLE COSTS						
PRE-HARVEST COST (E)						
Fuel		Litre	21,88	18,00	393,84	0,00
Repairs & Maintenance					236,30	0,00
TOTAL (E)					630,14	0,00
	TOTAL INDIRECTLY ALLOCATED VARIABLE COSTS (E)				630,14	0,00
TOTAL ALLOCATED VARIABLE COSTS (D + E = F)					19 230,67	0,00
GROSS MARGIN ABOVE TOTAL ALLOCATED VARIABLE COSTS (A - F)						0,00
TOTAL PRE-HARVEST COSTS (B + E)					19 230,67	0,00
TOTAL HARVEST COSTS (C)					0,00	0,00



22. MANGOES



Mangoes Production: Year 3

		Unit	Price Per Unit	Qty Per Ha	Value Per Ha	Value Per Yield Unit
GROSS INCOME (A)		Ton	11 500,00	0,00	0,00	0,00
DIRECTLY ALLOCATED VARIABLE COSTS *						
PRE-HARVEST COST (B)						
Fertilizer						
	LAN 28%	Ton	8 321,72	0,18	1 497,91	0,00
Herbicides						
	Diuron 800 SC	Litre	248,70	4,00	994,82	0,00
	Roundup	Litre	193,84	7,50	1 453,80	0,00
Micro-jet irrigation		mm	10,55	850,00	8 967,50	0,00
Casual Labour (9 hours per day)						
	Hoeing	Hour	28,79	184,50	5 311,76	0,00
	Fertilization	Hour	28,79	4,50	129,56	0,00
	Water Application	Hour	28,79	36,00	1 036,44	0,00
TOTAL (B)					19 391,78	0,00
HARVEST COSTS (C)					0,00	0,00
TOTAL DIRECTLY ALLOCATED VARIABLE COSTS (B + C = D)					19 391,78	0,00
INDIRECTLY ALLOCATED VARIABLE COSTS						
PRE-HARVEST COST (E)						
Fuel		Litre	21,88	18,00	393,84	0,00
Repairs & Maintenance					354,46	0,00
TOTAL (E)					748,30	0,00
TOTAL INDIRECTLY ALLOCATED VARIABLE COSTS (E)					748,30	0,00
TOTAL ALLOCATED VARIABLE COSTS (D + E = F)					20 140,08	0,00
GROSS MARGIN ABOVE TOTAL ALLOCATED VARIABLE COSTS (A - F)					-20 140,08	0,00
TOTAL PRE-HARVEST COSTS (B + E)					20 140,08	0,00
TOTAL HARVEST COSTS (C)					0,00	0,00

23. MANGOES

Mangoes Production: Year 4						
		Unit	Price Per Unit	Qty Per Ha	Value Per Ha	Value Per Yield Unit
GROSS INCOME (A)						
Product Income						
	Mangoes - Local Market	Ton	11 500,00	7,00	80 500,00	11 500,00
TOTAL (A)					80 500,00	11 500,00
DIRECTLY ALLOCATED VARIABLE COSTS *						
PRE-HARVEST COST (B)						
Fertilizer						
	LAN 28%	Ton	8321,72	0,36	2995,82	427,97
Herbicides						
	Diuron 800 SC	Litre	248,70	4,00	994,82	142,12
	Roundup	Litre	193,84	7,50	1453,80	207,69
Insecticides						
	Lebaycid	Litre	578,40	1,50	867,60	123,94
Micro-jet irrigation		mm	10,55	900,00	9495,00	1356,43
Casual Labour (9 hours per day)						
	Fertilization	Hour	28,79	288,00	8291,52	1184,50
	Water Application	Hour	28,79	162,00	4663,98	666,28
TOTAL (B)					28 762,54	4108,93
HARVEST COSTS (C)						
Casual Labour (9 hours per day)		Hour	28,79	576,00	16 583,04	2 369,01
Packaging : Mango box		Kg Box	16,60	1200,00	19 920,00	2 845,71
Marketing Costs						
	Agents Commission	of Price/Ton	849,38	4,80	4 077,04	582,43
	Market Commission	of Price/Ton	566,26	4,80	2 718,02	388,29
Transport : Contract		Ton	377,98	4,80	1 814,30	259,19
TOTAL (C)					45 112,40	6 444,63
	TOTAL DIRECTLY ALLOCATED VARIABLE COSTS (B + C = D)				73 874,95	10 553,56
INDIRECTLY ALLOCATED VARIABLE COSTS						
PRE-HARVEST COST (E1)						
Fuel		Litre	21,88	54,00	1 181,52	168,79
Repairs & Maintenance					1 063,37	151,91
TOTAL (E1)					2 244,89	320,70
HARVEST COST (E2)						
Fuel		Litre	21,88	18,00	393,84	56,26
Repairs & Maintenance					354,46	50,64
TOTAL (E2)					748,30	106,90
	TOTAL INDIRECTLY ALLOCATED VARIABLE COSTS (E1 + E2 = F)				2 993,18	427,60



TOTAL ALLOCATED VARIABLE COSTS (D + F = G)					76 868,13	10 981,16
GROSS MARGIN ABOVE TOTAL ALLOCATED VARIABLE COSTS (A - G)					3 631,87	518,84
TOTAL PRE-HARVEST COSTS (B + E1)					31 007,43	4 429,63
TOTAL HARVEST COSTS (C + E2)					45 860,70	6 551,53

PARAMETRIC BUDGETING

Price/ ton(R)	11 500,00
Quantity (ton/ha)	7,00
Gross income (R/ha)	80 500,00
Total expenditure (R/ha)	76 868,13
Gross margin (R/ha)	3 631,87

SENSITIVITY ANALYSIS

YIELD (ton/ha)	PRICE (R/ton)				
YIELD CHANGE AT 10% INCREMENTS	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
R3 631,87	10 350,00	10 925,00	11 500,00	12 075,00	12 650,00
5,60	-R18 908,13	-R15 688,13	-R12 468,13	-R9 248,13	-R6 028,13
6,30	-R11 663,13	-R8 040,63	-R4 418,13	-R795,63	R2 826,87
7,00	-R4 418,13	-R393,13	R3 631,87	R7 656,87	R11 681,87
7,70	R2 826,87	R7254,37	R11 681,87	R16 109,37	R20 536,87
8,40	R10 071,87	R14 901,87	R19 731,87	R24 561,87	R29 391,87
BREAKEVEN YIELD (ton/ha)	7,43	7,04	6,68	6,37	6,08

24. MANGOES

Mangoes Production: Year 5						
		Unit	Price Per Unit	Qty Per Ha	Value Per Ha	Value Per Yield Unit
GROSS INCOME (A)						
Product Income						
	Mangoes - Local Market	Ton	11 500,00	17,00	195 500,00	11 500,00
TOTAL (A)					195 500,00	11 500,00
DIRECTLY ALLOCATED VARIABLE COSTS *						
PRE-HARVEST COST (B)						
Fertilizer						
	KCl	Ton	18 150,00	0,27	4900,50	288,26
	LAN 28%	Ton	8321,72	0,57	4743,38	279,02
	Dolomitic Lime	Ton	1690,00	0,36	608,40	35,79
Herbicides						
	Diuron 800 SC	Litre	248,70	4,00	994,82	58,52
	Roundup	Litre	193,84	7,50	1453,80	85,52
Insecticides						
	Lebaycid	Litre	578,40	1,50	867,60	51,04
Fungicides						
	Zinc Oxide	Kg	294,00	14,00	4116,00	242,12
Trace Elements						
	Solubor	Kg	65,13	7,00	455,93	26,82
Plant Growth Regulators						
	EHG Grow	Litre	176,00	0,38	66,00	3,88
Micro-jet irrigation						
	Casual Labour (9 hours per day)	Hour	28,79	216,00	6218,64	365,80
TOTAL (B)					29 700,08	1747,06
HARVEST COSTS (C)						
	Casual Labour (9 hours per day)	Hour	28,79	1188,00	34 202,52	2É011,91
	Packaging : Mango box	Kg Box	16,60	3750,00	62 250,00	3É661,76
Marketing Costs						
	Agents Commission	of Price/Ton	862,50	17,00	14 662,50	862,50
	Market Commission	of Price/Ton	575,00	17,00	9775,00	575,00
	Transport : Contract	Ton	377,98	17,00	6425,66	377,98
TOTAL (C)					127 315,68	7489,16
TOTAL DIRECTLY ALLOCATED VARIABLE COSTS (B + C = D)					157 015,76	9236,22
INDIRECTLY ALLOCATED VARIABLE COSTS						
PRE-HARVEST COST (E1)						
	Fuel	Litre	21,88	72,00	1575,36	92,67
	Repairs & Maintenance				1417,82	83,40
TOTAL (E1)					2993,18	176,07
HARVEST COST (E2)						
	Fuel	Litre	21,88	16,00	350,08	20,59
	Repairs & Maintenance				315,07	18,53
TOTAL (E2)					665,15	39,13
TOTAL INDIRECTLY ALLOCATED VARIABLE COSTS (E1 + E2 = F)					3658,34	215,20

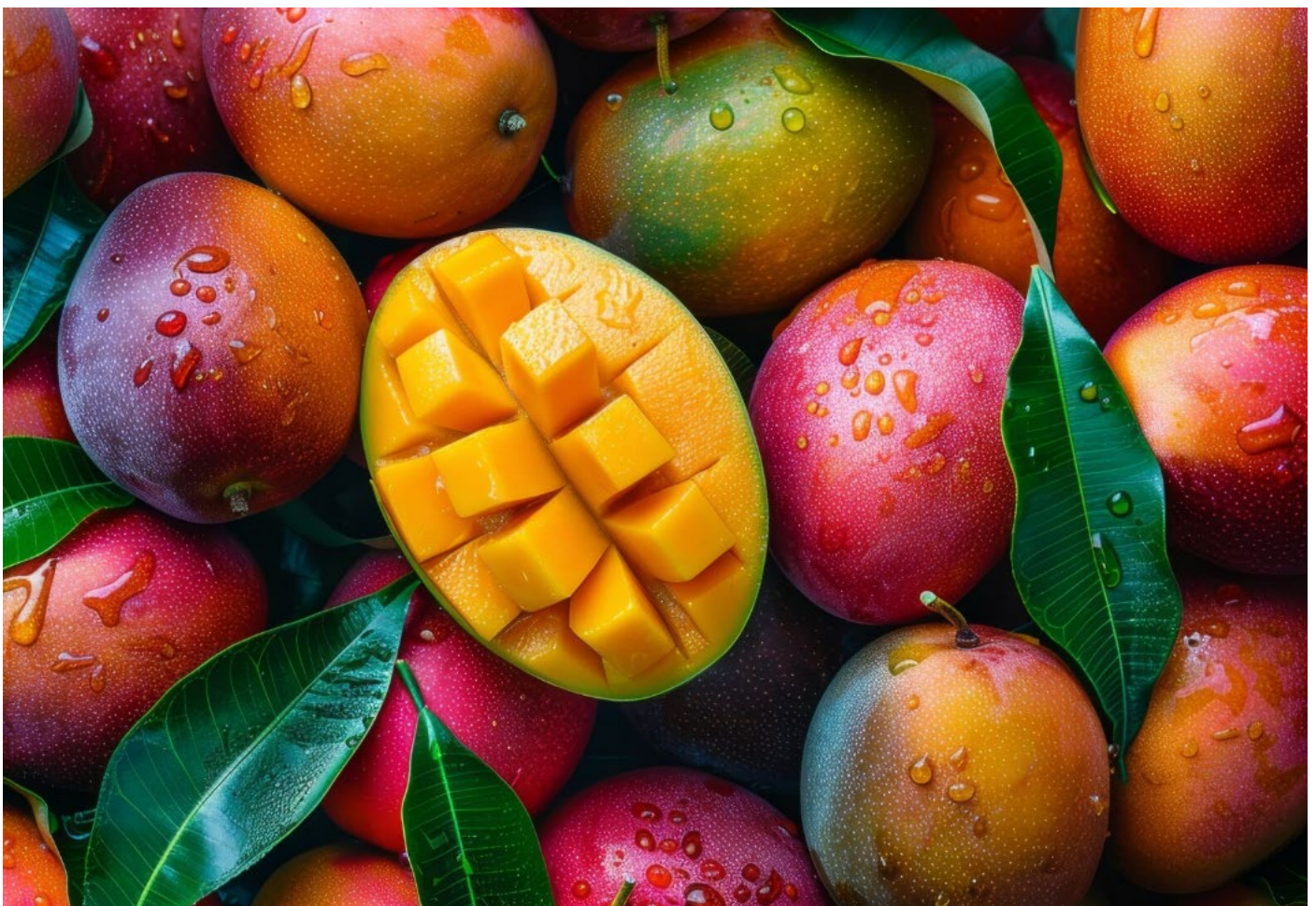
TOTAL ALLOCATED VARIABLE COSTS (D + F = G)					160 674,09	9451,42
GROSS MARGIN ABOVE TOTAL ALLOCATED VARIABLE COSTS (A - G)					34 825,91	2048,58
TOTAL PRE-HARVEST COSTS (B + EI)					32 693,26	1923,13
TOTAL HARVEST COSTS (C + E2)					127 980,83	7528,28

PARAMETRIC BUDGETING

Price/ ton (R)	11 500,00
Quantity (ton/ha)	17,00
Gross income (R/ha)	195 500,00
Total expenditure (R/ha)	160 674,09
Gross margin (R/ha)	34 825,91

SENSITIVITY ANALYSIS

YIELD (ton/ha)	PRICE (R/ton)				
	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
YIELD CHANGE AT 10% INCREMENTS					
R34 825,91	10 350,00	10 925,00	11 500,00	12 075,00	12 650,00
13,60	-R19 914	-R12 094	-R4 274	R3 546	R11 366
15,30	-R2319	R6478	R15 276	R24 073	R32 871
17,00	R15 276	R25 051	R34 826	R44 601	R54 376
18,70	R32 871	R43 623	R54 376	R65 128	R75 881
20,40	R50 466	R62 196	R73 926	R85 656	R97 386
BREAKEVEN YIELD (ton/ha)	15,52	14,71	13,97	13,31	12,70



25. ORANGES (CITRUS)

Citrus (Navel) - Production: Year 1 (Establishment)					
	Unit	Price Per Unit	Quantity	Per Ha	Value Per Yield Unit
GROSS INCOME			0,00	0,00	0,00
Product Income					
		0,00	0,00	0,00	0,00
Citrus - Orange	Ton	8000,00	0,00	0,00	0,00
MARKETING COSTS	Ton	0,00	0,00	0,00	0,00
GROSS INCOME minus MARKETING COSTS				0,00	0,00
TOTAL ALLOCATABLE VARIABLE COSTS				244 323,24	0,00
DIRECTLY ALLOCATABLE VARIABLE COSTS				242 921,58	0,00
A) PRE-HARVEST COST					
PLANTING MATERIAL				61 544,90	0,00
Citrus Navel Tree	Tree	89,59	687,00	61 544,90	0,00
FERTILISER				40 730,37	0,00
Organic 3:1:5 (18)	Ton	25 024,00	0,07	1751,68	0,00
Dolomitic lime	Ton	623,70	6,00	3742,20	0,00
Gypsum High Grade 87.3%	Ton	954,50	30,00	28 635,00	0,00
Single super phosphate 10.5%	Ton	12 854,70	0,30	3856,41	0,00
Mono Ammonium Phosphate	Ton	43 585,92	0,03	1307,58	0,00
Protek Guanoflo	L	143,75	10,00	1437,50	0,00
HERBICIDES				518,13	0,00
Paraquat 200SL	L	103,63	5,00	518,13	0,00
INSECTICIDES				979,90	0,00
Chlorpyrifos 480 EC	L	190,50	0,36	68,58	0,00
Imidacloprid 350SC	L	350,51	2,60	911,32	0,00
FUNGICIDES				537,55	0,00
Chlorpenapyr	L	1493,21	0,36	537,55	0,00
CASUAL LABOUR				37 369,42	0,00
Casual Labour Planting/Hour	R/Manhour	28,79	800,00	23 032,00	0,00
Casual Labour Irrigation/Hour	R/Manhour	28,79	320,00	9 212,80	0,00
Casual Labour Soil Prep/Hour	R/Manhour	28,79	16,00	460,64	0,00
Casual Labour Hole Digging/Hour	R/Manhour	28,79	162,00	4 663,98	0,00
DRIP IRRIGATION				90 000,00	0,00
Irrigation system	Each	90 000,00	1,00	90 000,00	0,00
IRRIGATION & ELECRCITY					0,00
CONTRACTOR				11 241,31	0,00
Ridges & Levelling	R/Manday	259,11	13,00	3 368,43	0,00
Ridging	R/Manday	5 800,00	1,00	5 800,00	0,00
Ripping	R/Manday	259,11	8,00	2 072,88	0,00
GROSS MARGIN ABOVE DIRECTLY ALLOCATABLE VARIABLE COSTS				-242 921,58	0,00

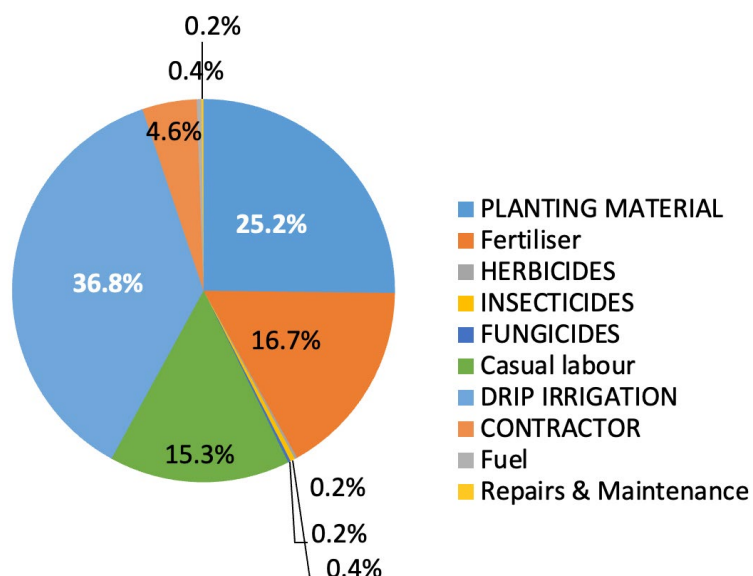
GROSS MARGIN ABOVE DIRECTLY ALLOCATABLE VARIABLE COSTS				-242 921,58	0,00
INDIRECTLY ALLOCATABLE VARIABLE COSTS				1 401,65	0,00
C) PRE-HARVEST COST				1401,65	
Fuel	L	21,88	44,18	966,66	0,00
Repairs & Maintenance				435,00	0,00
D) HARVEST COSTS				0,00	
Fuel	L	21,88		0,00	0,00
Repairs & Maintenance				0,00	0,00
GROSS MARGIN ABOVE TOTAL ALLOCATABLE VARIABLE COSTS				-239 049,54	0,00

PARAMETRIC BUDGETING	
LOCAL MARKET	
Price/ ton(R)	8000,00
Quantity (ton/ha)	-
Gross income (R/ha)	-
Total expenditure (R/ha)	244 323,24
Gross margin (R/ha)	-244 323,24

SENSITIVITY ANALYSIS					
YIELD (ton/ha)	PRICE (R/ton)				
YIELD CHANGE AT 10% INCREMENTS	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
-R244 323,24	7200,00	7600,00	8000,00	8400,00	8800,00
0,00	-R244 323	-R244 323	-R244 323	-R244 323	-R244 323
0,00	-R244 323	-R244 323	-R244 323	-R244 323	-R244 323
0,00	-R244 323	-R244 323	-R244 323	-R244 323	-R244 323
0,00	-R244 323	-R244 323	-R244 323	-R244 323	-R244 323
0,00	-R244 323	-R244 323	-R244 323	-R244 323	-R244 323
BREAKEVEN YIELD (ton/ha)	34	32	31	29	28

COSTS OF PRODUCTION	R/HA
PLANTING MATERIAL	61 545
Fertiliser	40 730,37
HERBICIDES	518,13
INSECTICIDES	979,90
FUNGICIDES	537,55
Casual labour	37 369,42
DRIP IRRIGATION	90 000,00
CONTRACTOR	11 241,31
Fuel	966,66
Repairs & Maintenance	435,00
TOTAL	244 323,24

Summary of cost of production



26. ORANGES (CITRUS)

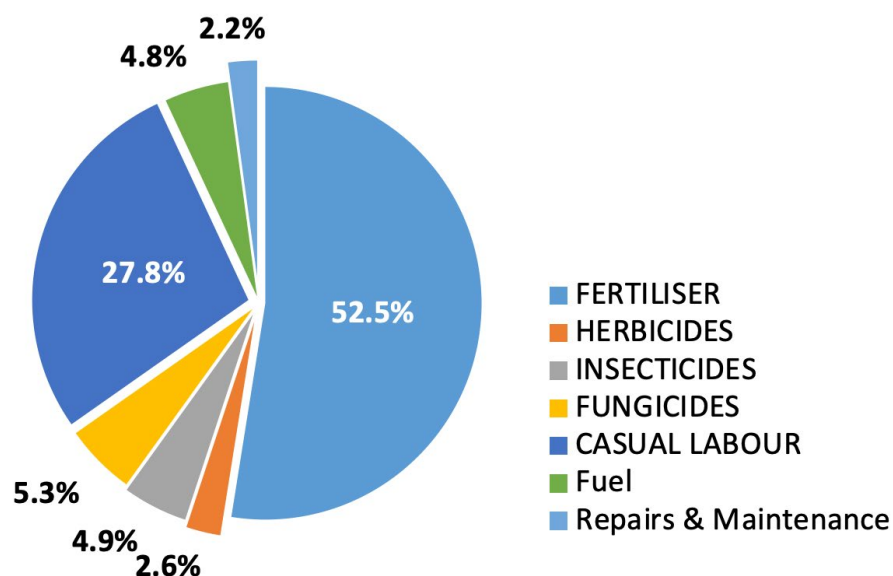
Citrus (Navel) - Production: Year 2					
	Unit	Price Per Unit	Quantity	Per Ha	Value Per Yield Unit
GROSS INCOME			0,00	0,00	0,00
Product Income					
		0,00	0,00	0,00	0,00
Citrus - Orange	Ton	8000,00	0,00	0,00	0,00
MARKETING COSTS	Ton	0,00	0,00	0,00	0,00
GROSS INCOME minus MARKETING COSTS				0,00	0,00
TOTAL ALLOCATABLE VARIABLE COSTS				20 192,82	0,00
DIRECTLY ALLOCATABLE VARIABLE COSTS				18 791,17	0,00
A) PRE-HARVEST COST					
PLANTING MATERIAL					0,00
FERTILISER				10 603,98	0,00
Organic 3:1:5 (18)	Ton	25 024,00	0,13	3253,12	0,00
Dolomitic lime	Ton	549,70	6,00	3298,20	0,00
Mono Ammonium Phosphate	Ton	43 585,92	0,06	2615,16	0,00
Protek Guanoflo	L	143,75	10,00	1437,50	0,00
HERBICIDES				518,13	0,00
Paraquat 200SL	L	103,63	5,00	518,13	0,00
INSECTICIDES				979,90	0,00
Chlorpyrifos 480 EC	L	190,50	0,36	68,58	0,00
Imidacloprid 350SC	L	350,51	2,60	911,32	0,00
FUNGICIDES				1075,11	0,00
Chlorpenapyr	L	1 493,21	0,72	1075,11	0,00
CASUAL LABOUR				5614,05	0,00
Casual Labour Weeding/Hour	R/Manhour	28,79	105,00	3022,95	0,00
Casual Labour Spraying/Hour	R/Manhour	28,79	90,00	2591,10	0,00
IRRIGATION & ELECRICITY					0,00
GROSS MARGIN ABOVE DIRECTLY ALLOCATABLE VARIABLE COSTS				-18 791,17	0,00
INDIRECTLY ALLOCATABLE VARIABLE COSTS				1401,65	0,00
C) PRE-HARVEST COST				1401,65	
Fuel	L	21,88	44,18	966,66	0,00
Repairs & Maintenance				435,00	0,00
D) HARVEST COSTS				0,00	
Fuel	L	21,88		0,00	0,00
Repairs & Maintenance				0,00	0,00
GROSS MARGIN ABOVE TOTAL ALLOCATABLE VARIABLE COSTS				-20 192,82	0,00

PARAMETRIC BUDGETING	
LOCAL MARKET	
Price/ ton(R)	8000,00
Quantity (ton/ha)	-
Gross income (R/ha)	-
Total expenditure (R/ha)	20 192,82
Gross margin (R/ha)	-20 192,82

SENSITIVITY ANALYSIS					
YIELD (ton/ha)	PRICE (R/ton)				
YIELD CHANGE AT 10% INCREMENTS	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
-R20 192,82	7200,00	7600,00	8000,00	8400,00	8800,00
0,00	-R20 193	-R20 193	-R20 193	-R20 193	-R20 193
0,00	-R20 193	-R20 193	-R20 193	-R20 193	-R20 193
0,00	-R20 193	-R20 193	-R20 193	-R20 193	-R20 193
0,00	-R20 193	-R20 193	-R20 193	-R20 193	-R20 193
0,00	-R20 193	-R20 193	-R20 193	-R20 193	-R20 193
BREAKEVEN YIELD (ton/ha)	3	3	3	2	2

COSTS OF PRODUCTION	R/HA
FERTILISER	10 603,98
HERBICIDES	518,13
INSECTICIDES	979,90
FUNGICIDES	1075,11
CASUAL LABOUR	5614,05
Fuel	966,66
Repairs & Maintenance	435,00
TOTAL	20 192,82

Summary of cost of production



26. ORANGES (CITRUS)

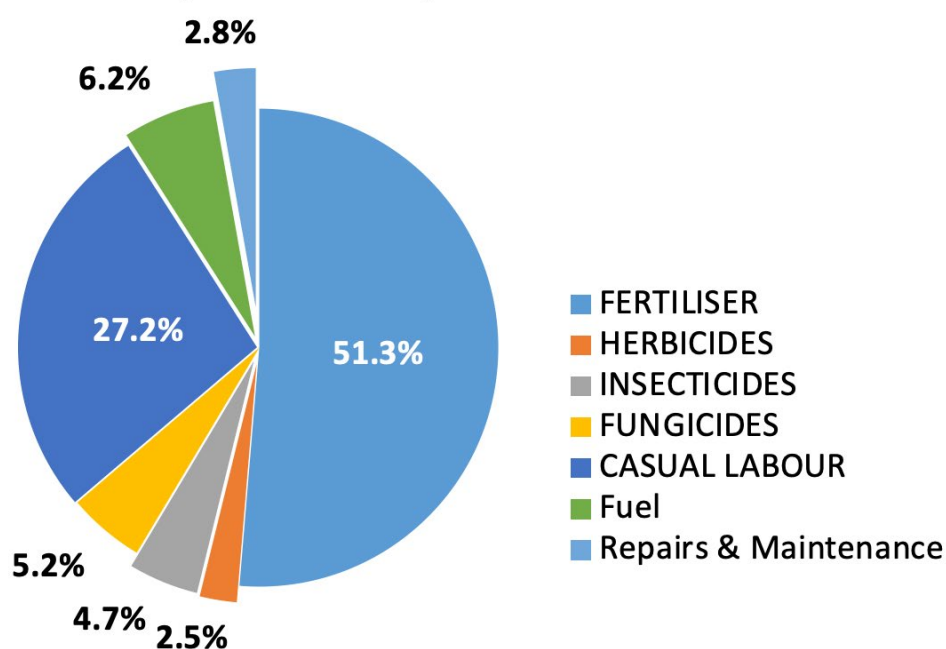
Citrus (Navel) - Production: Year 3					
	Unit	Price Per Unit	Quantity	Per Ha	Value Per Yield Unit
GROSS INCOME			0,00	0,00	0,00
Product Income					
		0,00	0,00	0,00	0,00
Citrus - Orange	Ton	8000,00	0,00	0,00	0,00
MARKETING COSTS	Ton	0,00	0,00	0,00	0,00
GROSS INCOME minus MARKETING COSTS				0,00	0,00
TOTAL ALLOCATABLE VARIABLE COSTS				20 899,32	0,00
DIRECTLY ALLOCATABLE VARIABLE COSTS				18 791,17	0,00
A) PRE-HARVEST COST					
PLANTING MATERIAL					0,00
FERTILISER				10 603,98	0,00
Organic 3:1:5 (18)	Ton	25 024,00	0,13	3253,12	0,00
Dolomitic lime	Ton	549,70	6,00	3298,20	0,00
Mono Ammonium Phosphate	Ton	43 585,92	0,06	2615,16	0,00
Protek Guanoflo	L	143,75	10,00	1437,50	0,00
HERBICIDES				518,13	0,00
Paraquat 200SL	L	103,63	5,00	518,13	0,00
INSECTICIDES				979,90	0,00
Chlorpyrifos 480 EC	L	190,50	0,36	68,58	0,00
Imidacloprid 350SC	L	350,51	2,60	911,32	0,00
FUNGICIDES				1075,11	0,00
Chlorpenapyr	L	1 493,21	0,72	1075,11	0,00
CASUAL LABOUR				5614,05	0,00
Casual Labour Weeding/Hour	R/Manhour	28,79	105,00	3022,95	0,00
Casual Labour Spraying/Hour	R/Manhour	28,79	90,00	2591,10	0,00
IRRIGATION & ELECRCITY					0,00
GROSS MARGIN ABOVE DIRECTLY ALLOCATABLE VARIABLE COSTS					0,00
INDIRECTLY ALLOCATABLE VARIABLE COSTS				2108,16	0,00
C) PRE-HARVEST COST				1869,41	
Fuel	L	21,88	58,92	1289,25	0,00
Repairs & Maintenance				580,16	0,00
D) HARVEST COSTS				238,75	
Fuel	L	21,88	10,91	238,75	0,00
Repairs & Maintenance				107,44	0,00
GROSS MARGIN ABOVE TOTAL ALLOCATABLE VARIABLE COSTS					0,00

PARAMETRIC BUDGETING	
LOCAL MARKET	
Price/ ton(R)	8000,00
Quantity (ton/ha)	-
Gross income (R/ha)	-
Total expenditure (R/ha)	20 899,32
Gross margin (R/ha)	-20 899,32

SENSITIVITY ANALYSIS					
YIELD (ton/ha)	PRICE (R/ton)				
YIELD CHANGE AT 10% INCREMENTS	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
-R20 899,32	7 200,00	7 600,00	8 000,00	8 400,00	8 800,00
0,00	-R20 899	-R20 899	-R20 899	-R20 899	-R20 899
0,00	-R20 899	-R20 899	-R20 899	-R20 899	-R20 899
0,00	-R20 899	-R20 899	-R20 899	-R20 899	-R20 899
0,00	-R20 899	-R20 899	-R20 899	-R20 899	-R20 899
0,00	-R20 899	-R20 899	-R20 899	-R20 899	-R20 899
BREAKEVEN YIELD (ton/ha)	3	3	3	2	2

COSTS OF PRODUCTION	R/HA
FERTILISER	10 603,98
HERBICIDES	518,13
INSECTICIDES	979,90
FUNGICIDES	1075,11
CASUAL LABOUR	5614,05
Fuel	1289,25
Repairs & Maintenance	580,16
TOTAL	20 660,58

Summary of cost of production



27. ORANGES (CITRUS)

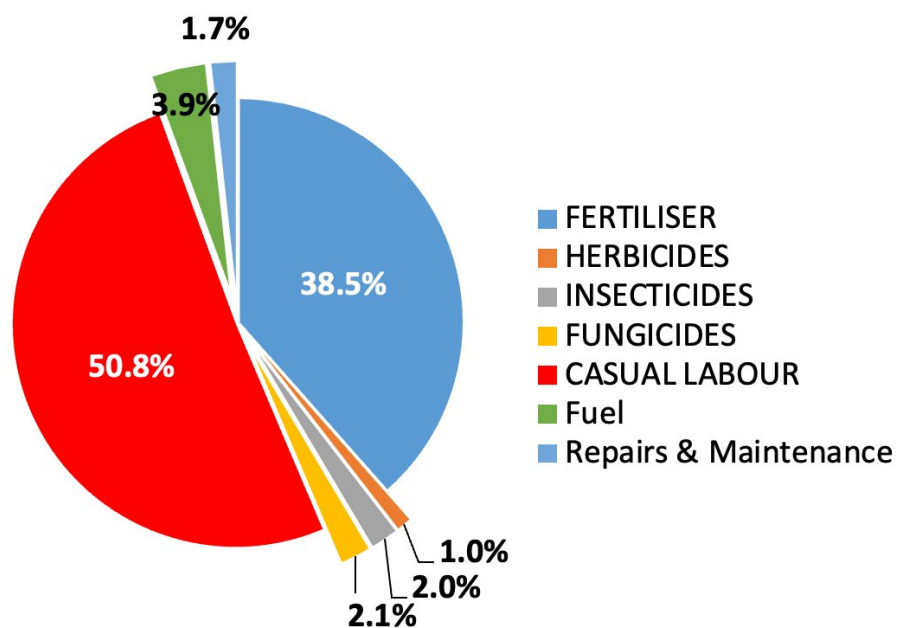
Citrus (Navel) - Production: Year 4					
	Unit	Price Per Unit	Quantity	Per Ha	Value Per Yield Unit
GROSS INCOME			25,00	200 000,00	8 000,00
Product Income					
Citrus - Orange	Ton	8 000,00	25,00	200 000,00	8 000,00
MARKETING COSTS	Ton	0,00	25,00	0,00	0,00
GROSS INCOME minus MARKETING COSTS				200 000,00	8 000,00
TOTAL ALLOCATABLE VARIABLE COSTS				50 477,02	2 019,08
DIRECTLY ALLOCATABLE VARIABLE COSTS				47 354,41	1 894,18
A) PRE-HARVEST COST					
PLANTING MATERIAL					
FERTILISER				19 302,12	772,08
Organic 3:1:5 (18)	Ton	25 024,00	0,13	3 253,12	130,12
Ammonium Nitrate 19% N	Ton	19 993,90	0,60	11 996,34	479,85
Mono Ammonium Phosphate	Ton	43 585,92	0,06	2 615,16	104,61
Protek Guanoflo	L	143,75	10,00	1 437,50	57,50
HERBICIDES				518,13	20,73
Paraquat 200SL	L	103,63	5,00	518,13	20,73
INSECTICIDES				979,90	39,20
Chlorpyrifos 480 EC	L	190,50	0,36	68,58	2,74
Imidacloprid 350SC	L	350,51	2,60	911,32	36,45
FUNGICIDES				1 075,11	43,00
Chlorpenapyr	L	1 493,21	0,72	1 075,11	43,00
CASUAL LABOUR				16 986,10	679,44
Casual Labour Weeding/Hour	R/Manhour	28,79	95,00	2 735,05	109,40
Casual Labour Spraying/Hour	R/Manhour	259,11	55,00	14 251,05	570,04
B) HARVEST COSTS				8 493,05	
Casual Labour Harvesting/Hour	R/Manhour	28,79	135,00	3 886,65	155,47
Casual Labour Packaging/Hour	R/Manhour	28,79	85,00	2 447,15	97,89
Casual Labour Loading/Hour	R/Manhour	28,79	75,00	2 159,25	86,37
GROSS MARGIN ABOVE DIRECTLY ALLOCATABLE VARIABLE COSTS				152 645,59	6 105,82
INDIRECTLY ALLOCATABLE VARIABLE COSTS				3 122,62	124,90
C) PRE-HARVEST COST				2 804,26	
Fuel	Litre	21,88	88	1 933,97	77,36
Repairs & Maintenance				870,29	34,81
D) HARVEST COSTS				318,35	
Fuel	Litre	21,88	15	318,35	12,73
Repairs & Maintenance				143,26	5,73
GROSS MARGIN ABOVE TOTAL ALLOCATABLE VARIABLE COSTS				149 522,98	5 980,92

PARAMETRIC BUDGETING	
LOCAL MARKET	
Price/ ton(R)	8000,00
Quantity (ton/ha)	25,00
Gross income (R/ha)	200 000,00
Total expenditure (R/ha)	50 477,02
Gross margin (R/ha)	149 522,98

SENSITIVITY ANALYSIS					
YIELD (ton/ha)	PRICE (R/ton)				
YIELD CHANGE AT 10% INCREMENTS	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
R149 522,98	7 200	7 600	8 000	8 400	8 800
20,00	R93 523	R101 523	R109 523	R117 523	R125 523
22,50	R111 523	R120 523	R129 523	R138 523	R147 523
25,00	R129 523	R139 523	R149 523	R159 523	R169 523
27,50	R147 523	R158 523	R169 523	R180 523	R191 523
30,00	R165 523	R177 523	R189 523	R201 523	R213 523
BREAKEVEN YIELD (ton/ha)	7	7	6	6	6

COSTS OF PRODUCTION	R/HA
FERTILISER	19 302
HERBICIDES	518
INSECTICIDES	980
FUNGICIDES	1075
CASUAL LABOUR	25 479
Fuel	1934
Repairs & Maintenance	870
TOTAL	50 159

Summary of cost of production



28. ORANGES (CITRUS)

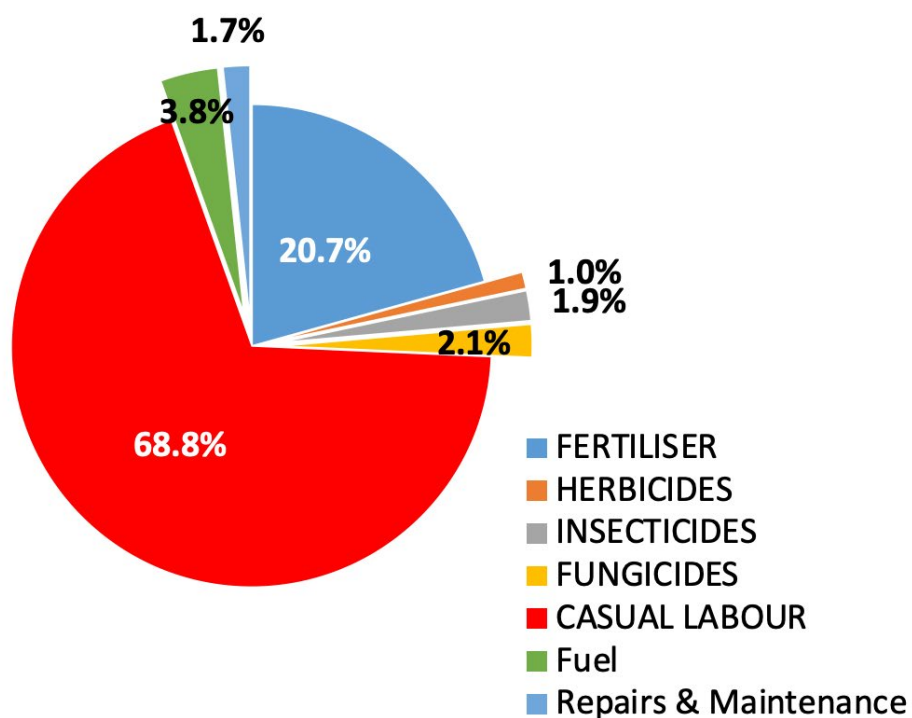
Citrus (Navel) - Production: Year 5					
	Unit	Price Per Unit	Quantity	Per Ha	Value Per Yield Unit
GROSS INCOME			35,00	280 000,00	8000,00
Product Income					
		0,00	0,00	0,00	0,00
Citrus - Orange	Ton	8000,00	35,00	280 000,00	8000,00
MARKETING COSTS	Ton	0,00	35,00	0,00	0,00
GROSS INCOME minus MARKETING COSTS				280 000,00	8000,00
TOTAL ALLOCATABLE VARIABLE COSTS				51 567,48	1473,36
DIRECTLY ALLOCATABLE VARIABLE COSTS				48 444,87	1384,14
A) PRE-HARVEST COST					
PLANTING MATERIAL					
FERTILISER				10 603,98	302,97
Organic 3:1:5 (18)	Ton	25 024,00	0,13	3253,12	92,95
Dolomitic Lime	Ton	549,70	6,00	3298,20	94,23
Mono Ammonium Phosphate	Ton	43 585,92	0,06	2615,16	74,72
Protek Guanoflo	L	143,75	10,00	1437,50	41,07
HERBICIDES				518,13	14,80
Paraquat 200SL	L	103,63	5,00	518,13	14,80
INSECTICIDES				979,90	28,00
Chlorpyrifos 480 EC	L	190,50	0,36	68,58	1,96
Imidacloprid 350SC	L	350,51	2,60	911,32	26,04
FUNGICIDES				1075,11	30,72
Chlorpenapyr	L	1 493,21	0,72	1 075,11	30,72
CASUAL LABOUR				25 911,00	740,31
Casual Labour Weeding/Hour	R/Manhour	28,79	90,00	2 591,10	74,03
Casual Labour Spraying/Hour	R/Manhour	259,11	90,00	23 319,90	666,28
B) HARVEST COSTS				9 356,75	
Casual Labour Harvesting/Hour	R/Manhour	28,79	145,00	4 174,55	119,27
Casual Labour Packaging/Hour	R/Manhour	28,79	95,00	2 735,05	78,14
Casual Labour Loading/Hour	R/Manhour	28,79	85,00	2 447,15	69,92
GROSS MARGIN ABOVE DIRECTLY ALLOCATABLE VARIABLE COSTS				231 555,13	6 615,86
INDIRECTLY ALLOCATABLE VARIABLE COSTS				3 122,62	89,22
C) PRE-HARVEST COST				2 804,26	
Fuel	Litre	21,88	88	1 933,97	55,26
Repairs & Maintenance				870,29	24,87
D) HARVEST COSTS				318,35	
Fuel	Litre	21,88	15	318,35	9,10
Repairs & Maintenance				143,26	4,09
GROSS MARGIN ABOVE TOTAL ALLOCATABLE VARIABLE COSTS				228 432,52	6 526,64

PARAMETRIC BUDGETING	
LOCAL MARKET	
Price/ ton(R)	8000,00
Quantity (ton/ha)	35,00
Gross income (R/ha)	280 000,00
Total expenditure (R/ha)	51 567,48
Gross margin (R/ha)	228 432,52

SENSITIVITY ANALYSIS					
YIELD (ton/ha)	PRICE (R/ton)				
YIELD CHANGE AT 10% INCREMENTS	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
R228 432,52	7200	7600	8000	8400	8800
28,00	R150 033	R161 233	R172 433	R183 633	R194 833
31,50	R175 233	R187 833	R200 433	R213 033	R225 633
35,00	R200 433	R214 433	R228 433	R242 433	R256 433
38,50	R225 633	R241 033	R256 433	R271 833	R287 233
42,00	R250 833	R267 633	R284 433	R301 233	R318 033
BREAKEVEN YIELD (ton/ha)	7	7	6	6	6

COSTS OF PRODUCTION	R/HA
FERTILISER	10 604
HERBICIDES	518
INSECTICIDES	980
FUNGICIDES	1075
CASUAL LABOUR	35 268
Fuel	1934
Repairs & Maintenance	870
TOTAL	51 249

Summary of cost of production



28. ORANGES (CITRUS)

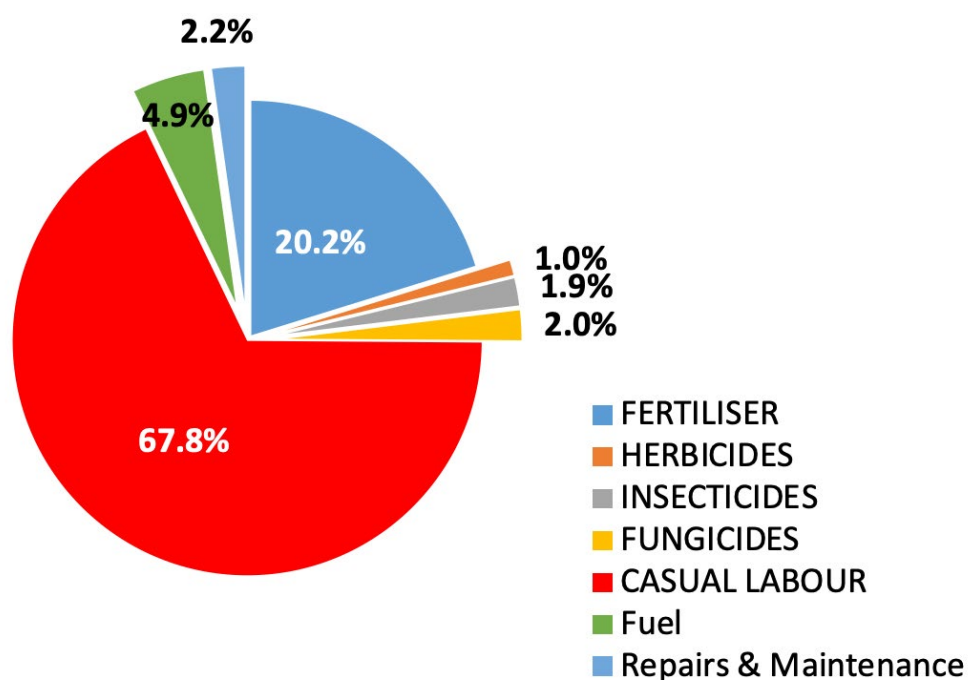
Citrus (Navel) - Production: Year 6					
	Unit	Price Per Unit	Quantity	Per Ha	Value Per Yield Unit
GROSS INCOME			50,00		8000,00
Product Income					
Citrus - Orange	Ton	8 000,00	50,00	400 000,00	8 000,00
MARKETING COSTS	Ton	0,00	50,00	0,00	0,00
GROSS INCOME minus MARKETING COSTS					8000,00
TOTAL ALLOCATABLE VARIABLE COSTS				52 842,98	1056,86
DIRECTLY ALLOCATABLE VARIABLE COSTS				48 732,77	974,66
A) PRE-HARVEST COST					
PLANTING MATERIAL					
FERTILISER				10 603,98	212,08
Organic 3:1:5 (18)	Ton	25 024,00	0,13	3253,12	65,06
Dolomitic Lime	Ton	549,70	6,00	3298,20	65,96
Mono Ammonium Phosphate	Ton	43 585,92	0,06	2615,16	52,30
Protek Guanoflo	L	143,75	10,00	1437,50	28,75
HERBICIDES				518,13	10,36
Paraquat 200SL	L	103,63	5,00	518,13	10,36
INSECTICIDES				979,90	19,60
Chlorpyrifos 480 EC	L	190,50	0,36	68,58	1,37
Imidacloprid 350SC	L	350,51	2,60	911,32	18,23
FUNGICIDES				1075,11	21,50
Chlorpenapyr	L	1493,21	0,72	1075,11	21,50
CASUAL LABOUR				25 911,00	518,22
Casual Labour Weeding/Hour	R/Manhour	28,79	90,00	2591,10	51,82
Casual Labour Spraying/Hour	R/Manhour	259,11	90,00	23 319,90	466,40
B) HARVEST COSTS				9644,65	
Casual Labour Harvesting/Hour	R/Manhour	28,79	155,00	4462,45	89,25
Casual Labour Packaging/Hour	R/Manhour	28,79	95,00	2735,05	54,70
Casual Labour Loading/Hour	R/Manhour	28,79	85,00	2447,15	48,94
GROSS MARGIN ABOVE DIRECTLY ALLOCATABLE VARIABLE COSTS					7025,34
INDIRECTLY ALLOCATABLE VARIABLE COSTS				4110,21	82,20
C) PRE-HARVEST COST				3738,91	
Fuel	Litre	21,88	118	2578,56	51,57
Repairs & Maintenance				1160,35	23,21
D) HARVEST COSTS				371,30	
Fuel	Litre	21,88	17	371,30	7,43
Repairs & Maintenance				167,09	3,34
GROSS MARGIN ABOVE TOTAL ALLOCATABLE VARIABLE COSTS					6943,14

PARAMETRIC BUDGETING	
LOCAL MARKET	
Price/ ton(R)	8000,00
Quantity (ton/ha)	50,00
Gross income (R/ha)	400 000,00
Total expenditure (R/ha)	52 842,98
Gross margin (R/ha)	347 157,02

SENSITIVITY ANALYSIS					
YIELD (ton/ha)	PRICE (R/ton)				
YIELD CHANGE AT 10% INCREMENTS	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
R347 157,02	7200	7600	8000	8400	8800
40,00	R235 157	R251 157	R267 157	R283 157	R299 157
45,00	R271 157	R289 157	R307 157	R325 157	R343 157
50,00	R307 157	R327 157	R347 157	R367 157	R387 157
55,00	R343 157	R365 157	R387 157	R409 157	R431 157
60,00	R379 157	R403 157	R427 157	R451 157	R475 157
BREAKEVEN YIELD (ton/ha)	7	7	7	6	6

COSTS OF PRODUCTION	R/HA
FERTILISER	10 604
HERBICIDES	518
INSECTICIDES	980
FUNGICIDES	1075
CASUAL LABOUR	35 556
Fuel	2 579
Repairs & Maintenance	1 160
TOTAL	52 472

Summary of cost of production



29. ORANGES (CITRUS)

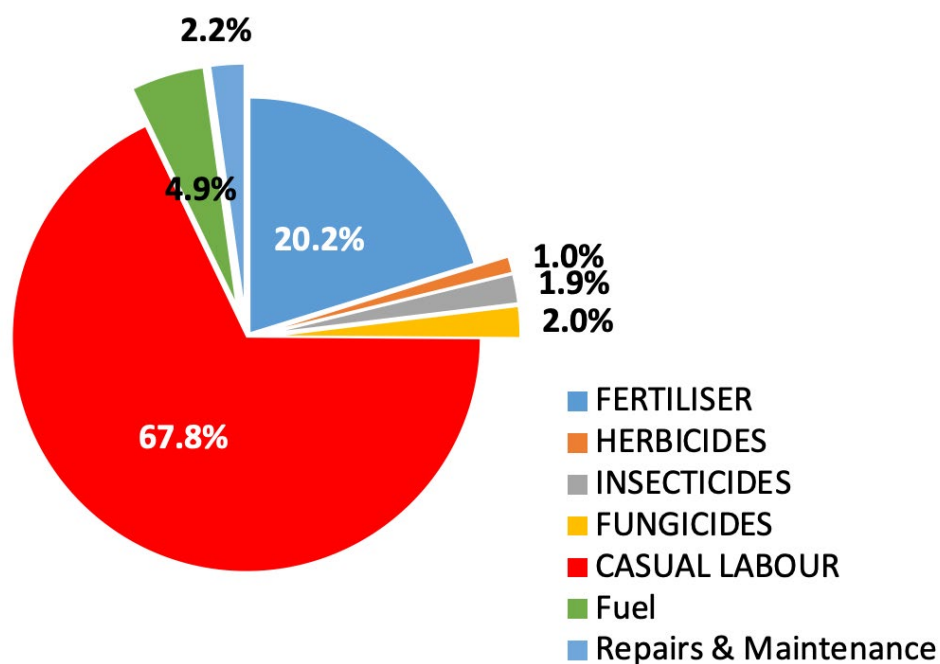
Citrus (Navel) - Production: Year 7					
	Unit	Price Per Unit	Quantity	Per Ha	Value Per Yield Unit
GROSS INCOME			60,00	480 000,00	8 000,00
Product Income					
Citrus - Orange	Ton	8 000,00	60,00	480 000,00	8000,00
MARKETING COSTS	Ton	0,00	60,00	0,00	0,00
GROSS INCOME minus MARKETING COSTS				480 000,00	8000,00
TOTAL ALLOCATABLE VARIABLE COSTS				52 842,98	880,72
DIRECTLY ALLOCATABLE VARIABLE COSTS				48 732,77	812,21
A) PRE-HARVEST COST					
PLANTING MATERIAL					
FERTILISER				10 603,98	176,73
Organic 3:1:5 (18)	Ton	25 024,00	0,13	3 253,12	54,22
Dolomitic Lime	Ton	549,70	6,00	3 298,20	54,97
Mono Ammonium Phosphate	Ton	43 585,92	0,06	2 615,16	43,59
Protek Guanoflo	L	143,75	10,00	1 437,50	23,96
HERBICIDES				518,13	8,64
Paraquat 200SL	L	103,63	5,00	518,13	8,64
INSECTICIDES				979,90	16,33
Chlorpyrifos 480 EC	L	190,50	0,36	68,58	1,14
Imidacloprid 350SC	L	350,51	2,60	911,32	15,19
FUNGICIDES				1075,11	17,92
Chlorpenapyr	L	1 493,21	0,72	1075,11	17,92
CASUAL LABOUR				25 911,00	431,85
Casual Labour Weeding/Hour	R/Manhour	28,79	90,00	2591,10	43,19
Casual Labour Spraying/Hour	R/Manhour	259,11	90,00	23 319,90	388,67
B) HARVEST COSTS				9 644,65	
Casual Labour Harvesting/Hour	R/Manhour	28,79	155,00	4462,45	74,37
Casual Labour Packaging/Hour	R/Manhour	28,79	95,00	2735,05	45,58
Casual Labour Loading/Hour	R/Manhour	28,79	85,00	2447,15	40,79
GROSS MARGIN ABOVE DIRECTLY ALLOCATABLE VARIABLE COSTS				431 267,23	7 187,79
INDIRECTLY ALLOCATABLE VARIABLE COSTS				4 110,21	68,50
C) PRE-HARVEST COST				3 738,91	
Fuel	Litre	21,88	118	2 578,56	42,98
Repairs & Maintenance				1 160,35	19,34
D) HARVEST COSTS				371,30	
Fuel	Litre	21,88	17	371,30	6,19
Repairs & Maintenance				167,09	2,78
GROSS MARGIN ABOVE TOTAL ALLOCATABLE VARIABLE COSTS				427 157,02	7 119,28

PARAMETRIC BUDGETING	
LOCAL MARKET	
Price/ ton(R)	8 000,00
Quantity (ton/ha)	60,00
Gross income (R/ha)	480 000,00
Total expenditure (R/ha)	52 842,98
Gross margin (R/ha)	427 157,02

SENSITIVITY ANALYSIS					
YIELD (ton/ha)	PRICE (R/ton)				
YIELD CHANGE AT 10% INCREMENTS	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
R427 157,02	7 200	7 600	8 000	8 400	8 800
48,00	R292 757	R311 957	R331 157	R350 357	R369 557
54,00	R335 957	R357 557	R379 157	R400 757	R422 357
60,00	R379 157	R403 157	R427 157	R451 157	R475 157
66,00	R422 357	R448 757	R475 157	R501 557	R527 957
72,00	R465 557	R494 357	R523 157	R551 957	R580 757
BREAKEVEN YIELD (ton/ha)	7	7	7	6	6

COSTS OF PRODUCTION	R/HA
FERTILISER	10 604
HERBICIDES	518
INSECTICIDES	980
FUNGICIDES	1075
CASUAL LABOUR	35 556
Fuel	2579
Repairs & Maintenance	1160
TOTAL	52 472

Summary of cost of production

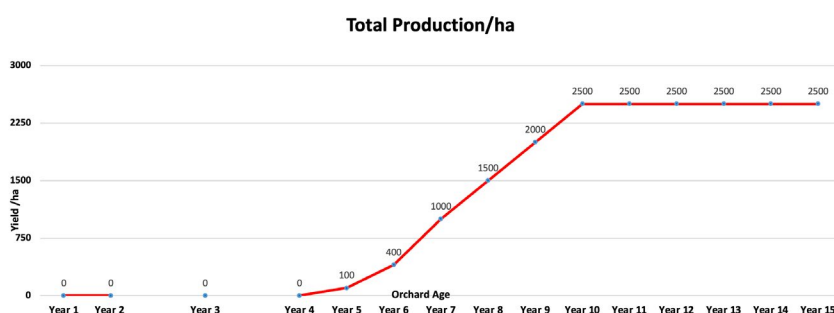


30. PEACAN NUTS

Peacan Nuts Production: Year I (Establishment)					
	Unit	Price Per Unit	Quantity	Per Ha	Value Per Yield Unit
GROSS INCOME			0,00	0,00	0,00
Product Income					
Peacan nut	Kg	R70,00	0,00	0,00	0,00
PLUM- Local market (40%)	Kg	R8 500,00	0,00	0,00	0,00
MARKETING COSTS		0,00	0,00	0,00	0,00
GROSS INCOME minus MARKETING COSTS				0,00	0,00
TOTAL ALLOCATABLE VARIABLE COSTS				95 418,34	0,00
DIRECTLY ALLOCATABLE VARIABLE COSTS				89 715,05	0,00
A) PRE-HARVEST COST					
PLANTING MATERIAL				21 000,00	0,00
Peacan nut	Tree	210,00	100,00	21 000,00	
FERTILISER				2 311,56	0,00
Nitrogen (N)	Ton	24 165,84	0,00	0,00	0,00
Turbo-31 10:1:5	Ton	16 122,08	0,00	0,00	0,00
Single Super Phosphate 10.5%	Ton	12 854,70	0,00	0,00	0,00
Maxiphos 20	Ton	19 117,14	0,00	0,00	0,00
Urea HB Granular 46%	Ton	12 968,32	0,00	0,00	0,00
KCL	Ton	17 353,50	0,00	0,00	0,00
Lime Ammonium Nitrate (28)	Ton	13 599,90	0,00	0,00	0,00
Macro-elements	Ha	1 959,49	1,00	1 959,49	
Micro-elements	Ha	352,07	1,00	352,07	
Copper	Kg	145,77	0,00	0,00	0,00
Mono Ammonium Phosphate	Ton	17 618,00	0,00	0,00	0,00
Solubor	L	39,79	0,00	0,00	0,00
Zinc	Ton	4 614,80	0,00	0,00	0,00
INSECTICIDES				0,00	0,00
emamectin benzoate	L	350,52	0,00	0,00	
Insects control chemicals	Ha	0,00	1,00	0,00	
Indoxacarb	L	1 144,54	0,00	0,00	
Chlorpyrifos 480 EC	L	190,50	0,00	0,00	0,00
Spinetoram 250 WG	Kg	7 955,21	0,00	0,00	0,00
Lamda-cyhalothrin	L	152,40	0,00	0,00	0,00
Alpha-cypermethrin	L	835,02	0,00	0,00	0,00
HERBICIDES				1876,00	0,00
Paraquat 200SL	L	103,63	0,00	0,00	0,00
Weeding chemical control	Ha	1876,00	1,00	1876,00	0,00
FUNGICIDES				0,00	0,00
Copper Oxychloride	Kg	167,64	0,00	Kg	0,00
Mancozeb 800WP	Kg	99,39	0,00	0,00	
Chemical control for fungus	Ha	0,00	1,00	0,00	
Propiconazole 250 EC	L	397,76	0,00	0,00	
Thiram	Kg	127,51	0,00	0,00	

Other Chemical				0,00	0,00
Other Chemical	Ha	0,00	1,00	0,00	0,00
CASUAL LABOUR				892,49	0,00
Casual Labour Planting/Day	R/Manhour	28,79	22,00	633,38	0,00
Casual Labour Pruning/Day	R/Manhour	28,79	9,00	259,11	0,00
Casual Labour Pruning/Day	R/Manday	28,79	0,00	0,00	
Casual Labour Thinning/Day	R/Manday	28,79	0,00	0,00	
TRELLISSING/ NETTING STRUCTURE				0,00	0,00
Pine poles 3.6m (80-99mm) (Class 3)	Each	230,75	0,00	0,00	0,00
Wire (4mm)	500m	1399,00	0,00	0,00	0,00
Wire Round 2mm (2000m)	50KG	1470,00	0,00	0,00	0,00
PPC Cement	50KG	115,00	0,00	0,00	0,00
Nails 3 inches	kg	28,00	0,00	0,00	0,00
Stone 19 mm	40KG	29,00	0,00	0,00	0,00
Sand	40KG	29,00	0,00	0,00	0,00
Staples pre-pack 32mm x 2.50mm (25 x 1kg)	Kg	47,50	0,00	0,00	0,00
Shade net	R/Ha	178 000,00	0,00	0,00	
Orchards Maintenance				1945,00	0,00
Orchards Maintenance	Ha	1945,00	1,00	1945,00	0,00
IRRIGATION & ELECTRICITY				61 690,00	0,00
Irrigation installation	Ha	55 000,00	1,00	55 000,00	0,00
Irrigation - Eskom	mm/Ha	750,00	6,82	5 115,00	
Irrigation Water board	mm/Ha	750,00	2,10	1 575,00	0,00
B) HARVEST COST				0,00	
CASUAL LABOUR				0,00	0,00
Casual Labour (Harvesting: Hand picking)	R/Manhour	28,79	0,00	0,00	0,00
GROSS MARGIN ABOVE DIRECTLY ALLOCATABLE VARIABLE COSTS					0,00
INDIRECTLY ALLOCATABLE VARIABLE COSTS				5703,29	0,00
B) PRE-HARVEST COST				5703,29	0,00
Fuel (Diesel)	L	21,88	156	3409,34	0,00
Repairs & Maintenance				2293,95	0,00
C) HARVEST COSTS				0,00	0,00
Fuel	L	21,88	0,00	0,00	0,00
Repairs & Maintenance				0,00	0,00
GROSS MARGIN ABOVE TOTAL ALLOCATABLE VARIABLE COSTS					0,00

Year of Establishment	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15
Total Production/ha	0	0	0	0	100	400	1000	1500	2000	2500	2500	2500	2500	2500	2500

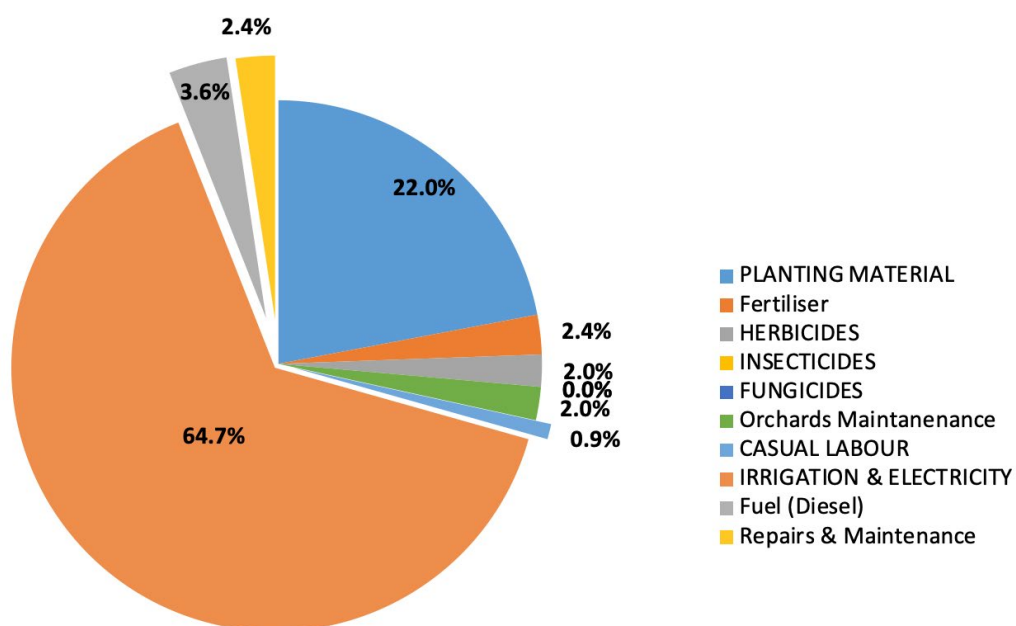


PARAMETRIC BUDGETING	
LOCAL MARKET	
Price/ ton(R)	70,00
Quantity (ton/ha)	-
Gross income (R/ha)	-
Total expenditure (R/ha)	95 418,34
Gross margin (R/ha)	-95 418,34

SENSITIVITY ANALYSIS					
YIELD (TON/HA)	PRICE (R/TON)				
YIELD CHANGE AT 10% INCREMENTS	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
-R95 418,34	63,00	66,50	70,00	73,50	77,00
0,00	-R95 418	-R95 418	-R95 418	-R95 418	-R95 418
0,00	-R95 418	-R95 418	-R95 418	-R95 418	-R95 418
0,00	-R95 418	-R95 418	-R95 418	-R95 418	-R95 418
0,00	-R95 418	-R95 418	-R95 418	-R95 418	-R95 418
0,00	-R95 418	-R95 418	-R95 418	-R95 418	-R95 418
BREAKEVEN YIELD (ton/ha)	1 515	1435	1363	1298	1239

COSTS OF PRODUCTION	R/HA
PLANTING MATERIAL	21 000,00
Fertiliser	2311,56
HERBICIDES	1876,00
INSECTICIDES	0,00
FUNGICIDES	0,00
Orchards Maintenance	1945,00
CASUAL LABOUR	892,49
IRRIGATION & ELECTRICITY	61 690,00
Fuel (Diesel)	3 409,34
Repairs & Maintenance	2 293,95
TOTAL	95 418,34

Summary of cost of production



31. TABLE GRAPES

Table Grapes: Irrigation Year 1 (Establishment)

Description	Unit	Price Per Unit	Quantity	Per Ha	Value Per Yield Unit
GROSS INCOME			0,00	0,00	0,00
Product Income					
		0,00	0,00	0,00	0,00
Table grape - Export	Carton	120,00	0,00	0,00	0,00
Table grape - Local	Carton	72,00	0,00	0,00	0,00
MARKETING COSTS: SATI Levy	Carton	0,64	0,00	0,00	0,00
MARKETING COSTS: Social Dvpt Levy	Carton	0,95	0,00	0,00	0,00
GROSS INCOME minus MARKETING COSTS				0,00	0,00
TOTAL ALLOCATABLE VARIABLE COSTS				567 428,31	0,00
DIRECTLY ALLOCATABLE VARIABLE COSTS				548 500,66	0,00
A) PRE-HARVEST COST					
PLANTING MATERIAL				87 740,00	0,00
Table grape-Stock vines	Stock	43,87	2000,00	87 740,00	0,00
					0,00
FERTILISER				21 643,30	0,00
NPK 15% (VM)	Ton	53 446,02	0,18	9 620,28	0,00
CT Grow (VM)	Ton	4 489,35	0,26	1 167,23	0,00
Mag (CaI3)	Ton	17 424,07	0,61	10 663,53	0,00
CT K-Veg (VM) B	Ton	3 845,00	0,05	192,25	0,00
OTHER CHEMICALS				7 253,87	0
Cyanamide	L	110,45	50,00	5 522,50	0,00
Spiroxamine 500 EC	L	622,59	1,20	747,11	0,00
Gibberelin	L	910,25	0,16	145,64	0,00
Isotridecanol	L	142,50	0,20	28,50	0,00
(E)-80dodecen-1-yl acetate + (7)-8-dodecen-1-yl acetate	L	6 481,00	0,13	810,12	0,00
PESTICIDES/INSECTICIDES				1 856,89	0,00
Fenazaquin	L	1442,38	0,60	865,43	0,00
Spirotetramat	L	2921,70	0,08	233,74	0,00
Spinosad 480 SC	L	4910,74	0,12	589,29	0,00
Thaumotobia leucotreta granulosisvirus	L	4812,50	0,04	168,44	0,00
FUNGICIDES				5 471,88	0,00
Mancozeb / Metalaxyl	KG	239,97	2,80	671,92	0,00
Sulphur	Kg	39,63	3,00	118,89	0,00
Potassium phosphite 400 SL	L	34,01	20,00	680,11	0,00
Penconazole	L	642,28	0,38	240,85	0,00
Fluopyram	L	6714,49	0,56	3 760,11	0,00
CASUAL LABOUR				43 875,96	0,00
Casual Labour Hole Digging/Hour	R/Manhour	28,79	480,00	13 819,20	0,00
Casual Labour Planting/Hour	R/Manhour	28,79	240,00	6 909,60	0,00
Casual Labour Wiring Trellis/Day	R/Manday	259,11	60,00	15 546,60	0,00
Casual Labour Fertiliser Spread/Hour	R/Manhour	28,79	24,00	690,96	0,00
Casual Labour Secure Rope/Hour	R/Manhour	28,79	240,00	6909,60	0,00
TRELLISING				210 537,40	0,00
Pine poles 2.1m (80-99mm) (Class 3)	Each	126,45	450,00	56 902,50	0,00

Pine poles 2.1m (80-99mm) (Class 3)	Each	126,45	900,00	113 805,00	0,00
Pine poles 2.1m (80-99mm) (Class 3)	Each	126,45	132,00	16 691,40	0,00
Fully GALV wire 50kg coils 4.00mm 50kg 500m	Coil	2429,00	5,00	12 145,00	0,00
Wire (4mm)	500m	1428,00	2,00	2856,00	0,00
Anchor Vine Complete	Each	83,50	66,00	5511,00	0,00
Staples pre-pack 32mm x 2.50mm (25 x 1kg)	Kg	52,53	50,00	2626,50	0,00
CASUAL LABOUR				146 829,00	0,00
Casual Labour Canopy Management/Day	R/Manday	259,11	480,00	124 372,80	0,00
Casual Labour Weeding/Hour	R/Manhour	28,79	240,00	6909,60	0,00
Casual Labour Soil Prep/Day	R/Manday	259,11	60,00	15 546,60	0,00
NETTING				9846,18	0,00
Casual Labour Harvesting/Day	R/Manday	259,11	24,00	6218,64	0,00
Casual Labour Packaging/Day	R/Manday	259,11	14,00	3627,54	0,00
OTHER COSTS				3600,00	0,00
Water tariff	Ha	3Ê600,00	1,00	3600,00	0,00
B) HARVEST COSTS				9846,18	0,00
Casual Labour Harvesting/Day	R/Manday	259,11	24,00	6218,64	0,00
Casual Labour Packaging/Day	R/Manday	259,11	14,00	3627,54	0,00
GROSS MARGIN ABOVE DIRECTLY ALLOCATABLE VARIABLE COSTS				-548 500,66	0,00
INDIRECTLY ALLOCATABLE VARIABLE COSTS				18 927,64	0,00
C) PRE-HARVEST COST					
Fuel	L	21,88	421,01	9211,68	0,00
Repairs & Maintenance				6635,54	0,00
D) HARVEST COST					
Fuel	L	21,88	86,50	1892,62	0,00
Repairs & Maintenance				1187,81	0,00
GROSS MARGIN ABOVE TOTAL ALLOCATABLE VARIABLE COSTS				-567 428,31	0,00

PARAMETRIC BUDGETING

EXPORT MARKET

Price/ ton(R)	120,00
Quantity (ton/ha)	-
Gross income (R/ha)	-
Total expenditure (R/ha)	510 685,48
Gross margin (R/ha)	-510 685,48

SENSITIVITY ANALYSIS

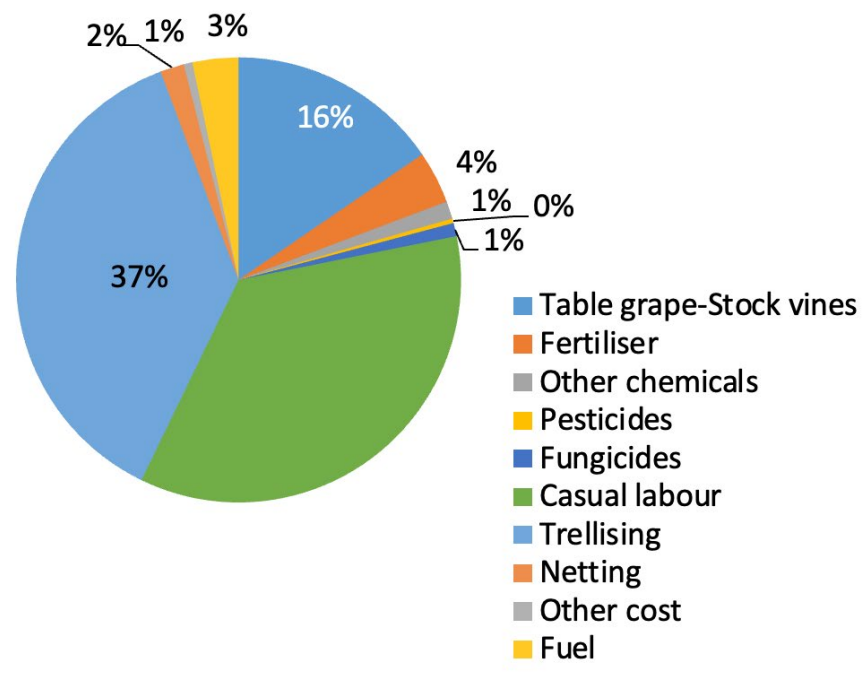
YIELD (ton/ha)	PRICE (R/ton)				
YIELD CHANGE AT 10% INCREMENTS	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
-R510Ê685,48	108,00	114,00	120,00	126,00	132,00
0,00	-R510 685	-R510 685	-R510 685	-R510 685	-R510 685
0,00	-R510 685	-R510 685	-R510 685	-R510 685	-R510 685
0,00	-R510 685	-R510 685	-R510 685	-R510 685	-R510 685
0,00	-R510 685	-R510 685	-R510 685	-R510 685	-R510 685
0,00	-R510 685	-R510 685	-R510 685	-R510 685	-R510 685
BREAKEVEN YIELD (ton/ha)	4Ê729	4Ê480	4Ê256	4Ê053	3Ê869

PARAMETRIC BUDGETING	
LOCAL MARKET	
Price/ ton(R)	72,00
Quantity (ton/ha)	-
Gross income (R/ha)	-
Total expenditure (R/ha)	56 742,83
Gross margin (R/ha)	-56 742,83

SENSITIVITY ANALYSIS					
YIELD (ton/ha)	PRICE (R/ton)				
YIELD CHANGE AT 10% INCREMENTS	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
-R56 742,83	64,80	68,40	72,00	75,60	79,20
0,00	-R56 743	-R56 743	-R56 743	-R56 743	-R56 743
0,00	-R56 743	-R56 743	-R56 743	-R56 743	-R56 743
0,00	-R56 743	-R56 743	-R56 743	-R56 743	-R56 743
0,00	-R56 743	-R56 743	-R56 743	-R56 743	-R56 743
0,00	-R56 743	-R56 743	-R56 743	-R56 743	-R56 743
BREAKEVEN YIELD (ton/ha)	876	830	788	751	716

Table grape-Stock vines	87 740
Fertiliser	21 643,30
Other chemicals	7253,87
Pesticides	1856,89
Fungicides	5471,88
Casual labour	200 551,14
Trellising	210 537,40
Netting	9846,18
Other cost	3 600,00
Fuel	18 927,64
TOTAL	567 428,31

Summary of cost of production



32. TABLE GRAPES

Table Grapes: Irrigation Year 2					
Description	Unit	Price Per Unit	Quantity	Per Ha	Value Per Yield Unit
GROSS INCOME			1 724,80	184 396,80	106,91
Product Income					
Table grape - Export	Carton	120,00	1254,40	150 528,00	87,27
Table grape - Local	Carton	72,00	470,40	33 868,80	19,64
MARKETING COSTS: SATI Levy	Carton	0,64	1724,80	1095,25	0,64
MARKETING COSTS: Social Dvpt Levy	Carton	0,95	1724,80	1638,56	0,95
GROSS INCOME minus MARKETING COSTS				181 662,99	105,32
TOTAL ALLOCATABLE VARIABLE COSTS				221 881,02	128,64
DIRECTLY ALLOCATABLE VARIABLE COSTS				202 953,37	117,67
A) PRE-HARVEST COST					
					0,00
FERTILISER				25 669,98	14,88
NPK 15% (VM)	Ton	53 446,02	0,18	9620,28	5,58
CT Grow (VM)	Ton	4489,35	0,90	4040,42	2,34
Mag (Ca3)	Ton	17 424,07	0,61	10 663,53	6,18
CT K-Veg (VM) B	Ton	3845,00	0,35	1345,75	0,78
OTHER CHEMICALS				7627,43	4,42
Cyanamide	L	110,45	50,00	5522,50	3,20
Spiroxamine 500 EC	L	622,59	1,80	1120,66	0,65
Gibberelin	L	910,25	0,16	145,64	0,08
Isotridecanol	L	142,50	0,20	28,50	0,02
(E)-80dodecen-1-yl acetate + (7)-8-dodecen-1-yl acetate	L	6481,00	0,13	810,12	0,47
PESTICIDES/INSECTICIDES				7779,70	4,51
Fenazaquin	L	1442,38	0,60	865,43	0,50
Spirotetramat	L	2921,70	0,20	584,34	0,34
Spinosad 480 SC	L	910,74	0,75	3683,06	2,14
Thaumatotibia leucotreta granulosivirus	L	4812,50	0,55	2646,88	1,53
FUNGICIDES				14 345,83	8,32
Mancozeb / Metalaxyl	KG	239,97	5,00	1199,85	0,70
Sulphur	Kg	39,63	10,00	396,30	0,23
Potassium phosphite 400 SL	L	34,01	10,50	357,06	0,21
Penconazole	L	642,28	1,00	642,28	0,37
Fluopyram	L	6714,49	1,75	11 750,35	6,81
CASUAL LABOUR				63 913,80	37,06
Casual Labour Canopy Management/Day	R/Manday	259,11	220,00	57 004,20	33,05
Casual Labour Weeding/Hour	R/Manhour	28,79	240,00	6909,60	4,01
OTHER COSTS				3600,00	2,09
Water tariff	Ha	3600,00	1,00	3600,00	2,09
B) HARVEST COSTS				80 016,63	46,39
Casual Labour Harvesting/Day	R/Manday	259,11	10,00	2591,10	1,50
Casual Labour Packaging/Day	R/Manday	259,11	55,00	14 251,05	8,26
Packaging material	Carton	35,52	1568,00	55 695,36	32,29

Inspection	Carton	0,47	1568,00	729,12	0,42
Storage and Cooling	Pellet	750,00	9,00	6750,00	3,91
GROSS MARGIN ABOVE DIRECTLY ALLOCATABLE VARIABLE COSTS				-21 290,38	-12,34
INDIRECTLY ALLOCATABLE VARIABLE COSTS				18 927,64	10,97
C) PRE-HARVEST COST					
Fuel	L	21,88	421,01	9211,68	5,34
Repairs & Maintenance				6635,54	3,85
D) HARVEST COST					
Fuel	L	21,88	86,50	1892,62	1,10
Repairs & Maintenance				1187,81	0,69
GROSS MARGIN ABOVE TOTAL ALLOCATABLE VARIABLE COSTS				-40 218,02	-23,32

PARAMETRIC BUDGETING	
EXPORT MARKET	
Price/ ton(R)	120,00
Quantity (ton/ha)	1254,40
Gross income (R/ha)	150 528,00
Total expenditure (R/ha)	199 692,91
Gross margin (R/ha)	-49 164,91

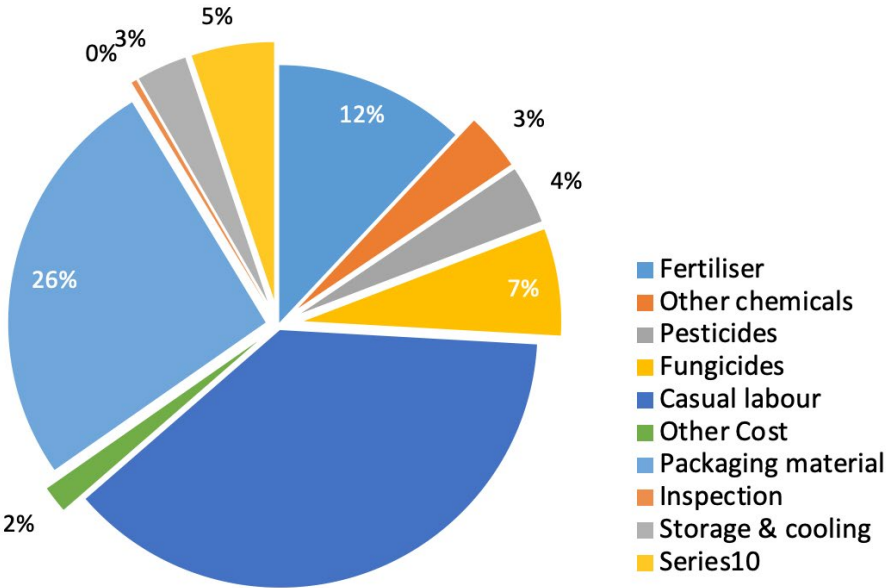
SENSITIVITY ANALYSIS					
YIELD (ton/ha)	PRICE (R/ton)				
YIELD CHANGE AT 10% INCREMENTS	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
-R49 164,91	108,00	114,00	120,00	126,00	132,00
1003,52	-R91 313	-R85 292	-R79 271	-R73 249	-R67 228
1128,96	-R77 765	-R70 991	-R64 218	-R57 444	-R50 670
1254,40	-R64 218	-R56 691	-R49 165	-R41 639	-R34 112
1379,84	-R50 670	-R42 391	-R34 112	-R25 833	-R17 554
1505,28	-R37 123	-R28 091	-R19 059	-R10 028	-R996
BREAKEVEN YIELD (ton/ha)	1849	1752	1664	1585	1513

PARAMETRIC BUDGETING	
LOCAL MARKET	
Price/ ton(R)	72,00
Quantity (ton/ha)	470,40
Gross income (R/ha)	33 868,80
Total expenditure (R/ha)	22 188,10
Gross margin (R/ha)	11 680,70

SENSITIVITY ANALYSIS					
YIELD (TON/HA)	PRICE (R/TON)				
YIELD CHANGE AT 10% INCREMENTS	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
R11 680,70	64,80	68,40	72,00	75,60	79,20
376,32	R2197	R3552	R4907	R6262	R7616
423,36	R5246	R6770	R8294	R9818	R11 342
470,40	R8294	R9987	R11 681	R13 374	R15 068
517,44	R11 342	R13 205	R15 068	R16 930	R18 793
564,48	R14 390	R16 422	R18 454	R20 487	R22 519
BREAKEVEN YIELD (ton/ha)	342	324	308	293	280

Fertiliser	25 669,98
Other chemicals	7627,43
Pesticides	7779,70
Fungicides	14 345,83
Casual labour	80 755,95
Other Cost	3600,00
Packaging material	55 695,36
Inspection	729,12
Storage & cooling	6750,00
Fuel	11 104,30
TOTAL	214 057,67

Summary of cost of production



33. TABLE GRAPES

Table Grapes: Irrigation Year 3					
Description	Unit	Price Per Unit	Quantity	Per Ha	Value Per Yield Unit
GROSS INCOME			3658,00	421 401,60	115,20
Product Income					
		0,00	0,00	0,00	0,00
Table grape - Export	Carton	120,00	3292,20	395 064,00	108,00
Table grape - Local	Carton	72,00	365,80	26 337,60	7,20
MARKETING COSTS: SATI Levy	Carton	0,64	3658,00	2322,83	0,64
MARKETING COSTS: Social Dvpt Levy	Carton	0,95	3658,00	3475,10	0,95
GROSS INCOME minus MARKETING COSTS				415 603,67	113,62
TOTAL ALLOCATABLE VARIABLE COSTS				322 502,99	88,16
DIRECTLY ALLOCATABLE VARIABLE COSTS				303 575,35	82,99
A) PRE-HARVEST COST					
					0,00
FERTILISER				20 549,85	5,62
NPK 15% (VM)	Ton	53 446,02	0,08	4275,68	1,17
CT Grow (VM)	Ton	4489,35	0,95	4264,88	1,17
CallMag (Ca3)	Ton	17 424,07	0,61	10 663,53	2,92
CT K-Veg (VM) B	Ton	3 845,00	0,35	1345,75	0,37
OTHER CHEMICALS				7627,43	2,09
Cyanamide	L	110,45	50,00	5522,50	1,51
Spiroxamine 500 EC	L	622,59	1,80	1120,66	0,31
Gibberelin	L	910,25	0,16	145,64	0,04
Isotridecanol	L	142,50	0,20	28,50	0,01
(E)-80dodecen-1-yl acetate + (7)-8-dodecen-1-yl acetate	L	6481,00	0,13	810,12	0,22
PESTICIDES/INSECTICIDES				7779,70	2,13
Fenazaquin	L	1442,38	0,60	865,43	0,24
Spirotetramat	L	2921,70	0,20	584,34	0,16
Spinosad 480 SC	L	4910,74	0,75	3683,06	1,01
Thaumotobia leucotreta granulosisvirus	L	4812,50	0,55	2646,88	0,72
FUNGICIDES				14 345,83	3,92
Mancozeb / Metalaxyl	KG	239,97	5,00	1199,85	0,33
Sulphur	Kg	39,63	10,00	396,30	0,11
Potassium phosphite 400 SL	L	34,01	10,50	357,06	0,10
Penconazole	L	642,28	1,00	642,28	0,18
Fluopyram	L	6714,49	1,75	11 750,35	3,21
CASUAL LABOUR				63 913,80	17,47
Casual Labour Canopy Management/Day	R/Manday	259,11	220,00	57 004,20	15,58
Casual Labour Weeding/Hour	R/Manhour	28,79	240,00	6909,60	1,89
OTHER COSTS				3600,00	0,98
Water tariff	Ha	3600,00	1,00	3600,00	0,98
B) HARVEST COSTS				185 758,74	50,78
Casual Labour Harvesting/Day	R/Manday	259,11	22,00	5700,42	1,56

PARAMETRIC BUDGETING	
EXPORT MARKET	
Price/ ton(R)	120,00
Quantity (ton/ha)	3292,20
Gross income (R/ha)	395 064,00
Total expenditure (R/ha)	290 252,69
Gross margin (R/ha)	104 811,31

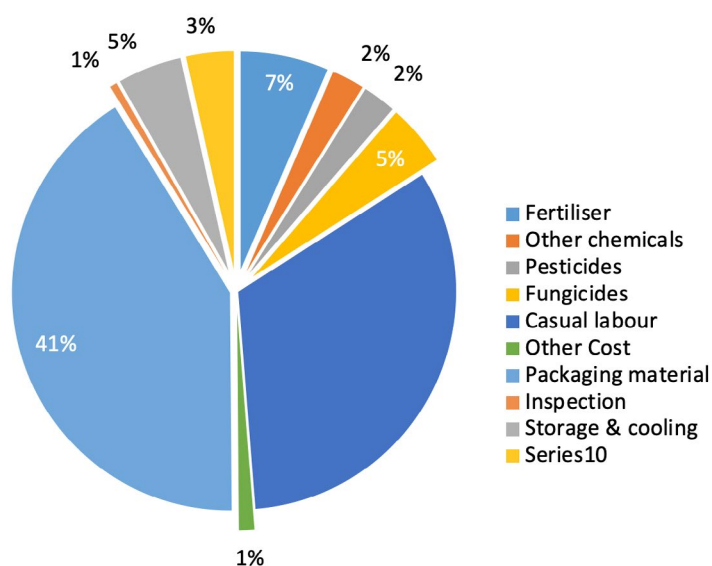
SENSITIVITY ANALYSIS					
YIELD (ton/ha)	PRICE (R/ton)				
YIELD CHANGE AT 10% INCREMENTS	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
R104 811,31	108,00	114,00	120,00	126,00	132,00
2633,76	-R5807	R9996	R25 799	R41 601	R57 404
2962,98	R29 749	R47 527	R65 305	R83 083	R100 861
3292,20	R65 305	R85 058	R104 811	R124 565	R144 318
3621,42	R100 861	R122 589	R144 318	R166 046	R187 775
3950,64	R136 416	R160 120	R183 824	R207 528	R231 232
BREAKEVEN YIELD (ton/ha)	2688	2546	2419	2304	2199

PARAMETRIC BUDGETING	
LOCAL MARKET	
Price/ ton(R)	72,00
Quantity (ton/ha)	365,80
Gross income (R/ha)	26 337,60
Total expenditure (R/ha)	32 250,30
Gross margin (R/ha)	-5 912,70

SENSITIVITY ANALYSIS					
YIELD (ton/ha)	PRICE (R/ton)				
YIELD CHANGE AT 10% INCREMENTS	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
-R5912,70	64,80	68,40	72,00	75,60	79,20
292,64	-R13 287,23	-R12 233,72	-R11 180,22	-R10 126,72	-R9 073,21
329,22	-R10 916,84	-R9 731,65	-R8 546,46	-R7 361,27	-R6 176,08
365,80	-R8 546,46	-R7 229,58	-R5 912,70	-R4 595,82	-R3 278,94
402,38	-R6 176,08	-R4 727,51	-R3 278,94	-R1 830,37	-R381,80
438,96	-R3 805,69	-R2 225,44	-R645,18	R935,08	R25 5,33
BREAKEVEN YIELD (ton/ha)	498	471	448	427	407

Fertiliser	20 549,85
Other chemicals	7 627,43
Pesticides	7 779,70
Fungicides	14 345,83
Casual labour	103 039,41
Other Cost	3600,00
Packaging material	129 932,16
Inspection	1 700,97
Storage & cooling	15 000,00
Fuel	11 104,30
TOTAL	314 679,64

Summary of cost of production



33. TABLE GRAPES

Table Grapes: Irrigation Year 4+					
Description	Unit	Price Per Unit	Quantity	Per Ha	Value Per Yield Unit
GROSS INCOME			5225,00	601 920,00	115,20
Product Income					-
		0,00	0,00	0,00	-
Table grape - Export	Carton	120,00	4702,50	564 300,00	108,00
Table grape - Local	Carton	72,00	522,50	37 620,00	7,20
MARKETING COSTS: SATI Levy	Carton	0,64	5225,00	3317,88	0,64
MARKETING COSTS: Social Dvpt Levy	Carton	0,95	5225,00	4963,75	0,95
GROSS INCOME minus MARKETING COSTS				593 638,38	113,62
					-
TOTAL ALLOCATABLE VARIABLE COSTS				469 889,75	89,93
DIRECTLY ALLOCATABLE VARIABLE COSTS				450 962,11	86,31
A) PRE-HARVEST COST					-
					-
FERTILISER				28 790,27	5,51
N3PK 15% (VM)	Ton	53 446,02	0,20	10 689,20	2,05
CT Grow (VM)	Ton	4489,35	1,10	4938,29	0,95
CallMag (Cal3)	Ton	17 424,07	0,61	10 663,53	2,04
CT K-Veg (VM) B	Ton	3845,00	0,65	2499,25	0,48
					-
OTHER CHEMICALS				7253,87	1,39
Cyanamide	L	110,45	50,00	5522,50	1,06
Spiroxamine 500 EC	L	622,59	1,20	747,11	0,14
Gibberelin	L	910,25	0,16	145,64	0,03
Isotridecanol	L	142,50	0,20	28,50	0,01
(E)-80dodecen-1-yl acetate + (7)-8-dodecen-1-yl acetate	L	6€481,00	0,13	810,12	0,16
					-
PESTICIDES/INSECTICIDES				1856,89	0,36
Fenazaquin	L	1442,38	0,60	865,43	0,17
Spirotetramat	L	2921,70	0,08	233,74	0,04
Spinosad 480 SC	L	4910,74	0,12	589,29	0,11
thaumatotibia leucotreta granulosisvirus	L	4812,50	0,04	168,44	0,03
					-
FUNGICIDES				6479,76	1,24
Mancozeb / Metalaxyl	KG	239,97	7,00	1679,79	0,32
Sulphur	Kg	39,63	3,00	118,89	0,02
Potassium phosphite 400 SL	L	34,01	20,00	680,11	0,13
Penconazole	L	642,28	0,38	240,85	0,05
Fluopyram	L	6714,49	0,56	3760,11	0,72
					-
CASUAL LABOUR				71 €687,10	13,72
Casual Labour Canopy Management/Day	R/Manday	259,11	250,00	64 777,50	12,40
Casual Labour Weeding/Hour	R/Manhour	28,79	240,00	6909,60	1,32
					-
OTHER COSTS				3600,00	0,69
Water tariff	Ha	3€600,00	1,00	3600,00	0,69
					-
B) HARVEST COSTS				331 294,22	63,41
Casual Labour Harvesting/Day	R/Manday	259,11	193,00	50 008,23	9,57
Casual Labour Packaging/Day	R/Manday	259,11	276,00	71 514,36	13,69

Packaging material	Carton	35,52	5225,00	185 592,00	35,52
Inspection	Carton	0,47	5225,00	2429,63	0,47
Storage and Cooling	Pellet	750,00	29,00	21 750,00	4,16
					-
GROSS MARGIN ABOVE DIRECTLY ALLOCATABLE VARIABLE COSTS				142 676,27	27,31
					-
INDIRECTLY ALLOCATABLE VARIABLE COSTS				18 927,64	3,62
C) PRE-HARVEST COST					
Fuel	L	21,88	421,01	9211,68	1,76
Repairs & Maintenance				6635,54	1,27
					-
D) HARVEST COST					
Fuel	L	21,88	86,50	1892,62	0,36
Repairs & Maintenance				1187,81	0,23
					-
GROSS MARGIN ABOVE TOTAL ALLOCATABLE VARIABLE COSTS				123 748,62	23,68

PARAMETRIC BUDGETING	
EXPORT MARKET	
Price/ ton(R)	120,00
Quantity (ton/ha)	4 702,50
Gross income (R/ha)	564 300,00
Total expenditure (R/ha)	422 900,78
Gross margin (R/ha)	141 399,22

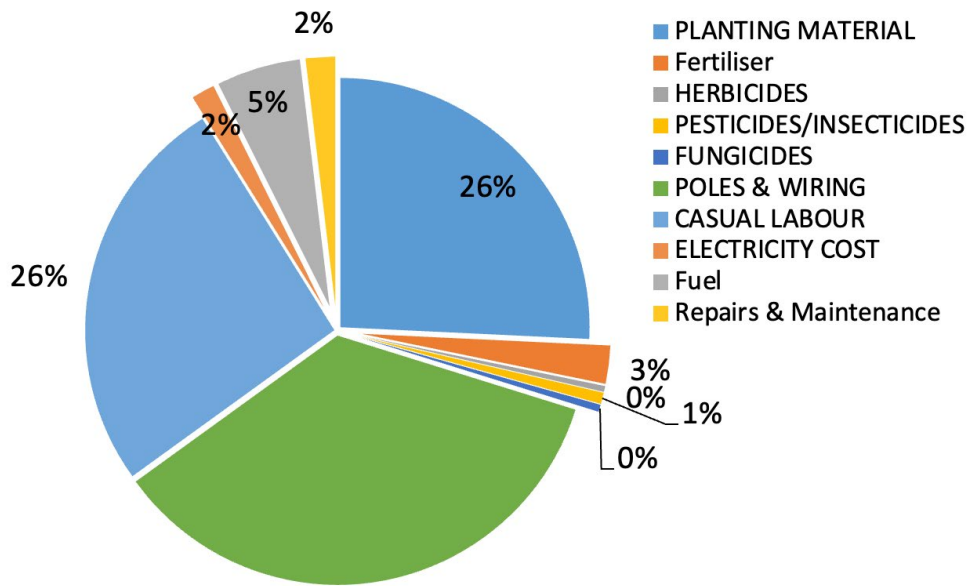
SENSITIVITY ANALYSIS					
YIELD (ton/ha)	PRICE (R/ton)				
YIELD CHANGE AT 10% INCREMENTS	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
R141 399,22	108,00	114,00	120,00	126,00	132,00
3762,00	-R16 605	R5 967	R28 539	R51 111	R73 683
4232,25	R34 182	R59 576	R84 969	R110 363	R135 756
4702,50	R84 969	R113 184	R141 399	R169 614	R197 829
5172,75	R135 756	R166 793	R197 829	R228 866	R259 902
5643,00	R186 543	R220 401	R254 259	R288 117	R321 975
BREAKEVEN YIELD (ton/ha)	3916	3710	3Ê524	3Ê356	3Ê204

PARAMETRIC BUDGETING	
LOCAL MARKET	
Price/ ton(R)	72,00
Quantity (ton/ha)	522,50
Gross income (R/ha)	37 620,00
Total expenditure (R/ha)	46 988,98
Gross margin (R/ha)	-9 368,98

SENSITIVITY ANALYSIS					
YIELD (ton/ha)	PRICE (R/ton)				
YIELD CHANGE AT 10% INCREMENTS	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
-R9Ê368,98	64,80	68,40	72,00	75,60	79,20
418,00	-R19 903	-R18 398	-R16 893	-R15 388	-R13 883
470,25	-R16 517	-R14 824	-R13 131	-R11 438	-R9 745
522,50	-R13 131	-R11 250	-R9 369	-R7 488	-R5 607
574,75	-R9 745	-R7 676	-R5 607	-R3 538	-R1 469
627,00	-R6 359	-R4 102	-R1 845	R412	R2 669
BREAKEVEN YIELD (ton/ha)	725	687	653	622	593

Fertiliser	28 790,27
Other chemicals	7253,87
Pesticides	1856,89
Fungicides	6479,76
Casual labour	193 209,69
Other Cost	3600,00
Packaging material	185 592,00
Inspection	2429,63
Storage & cooling	21 750,00
Fuel	11 104,30
TOTAL	462 066,40

Summary of cost of production



33. WINE GRAPES

Wine Grapes Irrigation Production: Year 1 (Establishment)

Description	Unit	Price Per Unit	Quantity	Per Ha	Value Per Yield Unit
GROSS INCOME			0,00	0,00	-
Product Income					-
		0,00	0,00	0,00	-
WINE GRAPE	Ton	6 000,00	0,00	0,00	-
MARKETING COSTS	Ton	0,00	0,00	0,00	-
GROSS INCOME minus MARKETING COSTS				0,00	-
					-
TOTAL ALLOCATABLE VARIABLE COSTS				351 053,83	-
DIRECTLY ALLOCATABLE VARIABLE COSTS				325 193,02	-
					-
A) PRE-HARVEST COST					-
PLANTING MATERIAL				90 398,57	-
Wine Grape Stock	Each	23,90	3 783,00	90 398,57	-
					-
FERTILISER				8 680,91	-
Single Super Phosphate 10.5%	Ton	5 921,71	0,30	1 776,51	-
Potassium Sulphate	Ton	34 522,00	0,20	6 904,40	-
					-
HERBICIDES				1 337,67	-
Polyether modified trisiloxane	L	284,57	3,50	996,00	-
Metaldehyde ¹	Kg	42,71	8,00	341,67	-
					-
PESTICIDES/INSECTICIDES				2 574,58	-
Chlorpyrifos	L	174,46	0,40	69,79	-
Imidacloprid 350SC	L	597,40	2,50	1 493,51	-
Hydrogen Cyanamide	L	126,26	4,00	505,03	-
Alpha-cypermethrin	L	161,00	1,00	161,00	-
Chlorpenapyr	L	2 173,20	0,05	108,66	-
Fenazaquin	L	1 591,12	0,05	79,56	-
Bromopropylate	L	862,50	0,05	43,13	-
Fipronil	L	1 139,19	0,10	113,92	-
					-
FUNGICIDES				1 630,29	-
Potassium phosphite 400 SL	L	107,16	3,50	375,05	-
Propineb	Kg	273,81	0,40	109,52	-
Mancozeb 800WP	Kg	99,39	0,40	39,76	-
Phosphoric Acid (Phosguard)	L	64,49	3,00	193,48	-
Spiroxamine 500 EC	L	156,97	0,12	18,84	-
Chlorpenapyr	L	2 173,20	0,30	651,96	-
Sulphur	Kg	17,26	14,00	241,68	-
					-
POLES & WIRING				123 695,79	-
Pine poles 2.1m (80-99mm) (Class 3)	Each	126,45	551,50	69 737,18	-
Pine poles 2.4m (100-119mm) (Class 4)	Each	198,00	74,07	14 665,86	-
Wire Oval 2.2mm	50KG	1 425,90	3,00	4 277,70	-
Wire Round 2mm (2000m)	50KG	1 525,00	13,00	19 825,00	-
Wire (4mm)	500m	1 428,00	1,00	1 428,00	-
Wire Kram 40mm	50KG	3 545,00	0,32	1 134,40	-
Anchor Vine Complete	Each	83,50	74,00	6 179,00	-
Vine Trellis Clip	Each	1,95	3 307,00	6 448,65	-

Anchor Vine Complete	Each	83,50	74,00	6 179,00
Vine Trellis Clip	Each	1,95	3 307,00	6 448,65
CASUAL LABOUR				91 552,20
Casual Labour Erecting Pole/Hour	R/Manhour	28,79	350,00	10 076,50
Casual Labour Wiring Trellis/Hour	R/Manhour	28,79	1 530,00	44 048,70
Casual Labour Irrigation/Hour	R/Manhour	28,79	213,00	6 132,27
Casual Labour Cover Crop Seed /Hour	R/Manhour	28,79	4,00	1 15,16
Casual Labour Vine Planting/Hour	R/Manhour	28,79	173,00	4 980,67
Casual Labour Plastic Covering/Hour	R/Manhour	28,79	27,00	777,33
Casual Labour Green Shoot Development/Hour	R/Manhour	28,79	265,00	7 629,35
Casual Labour Winter Can on Framework/Hour	R/Manhour	28,79	1 18,00	3 397,22
Casual Labour Crop Control/Hour	R/Manhour	28,79	146,00	4 203,34
Casual Labour Trellis pre-prune /Hour	R/Manhour	28,79	34,00	978,86
Casual Labour Prune clearing/Hour	R/Manhour	28,79	1 13,00	3 253,27
Casual Labour Blunt pruning/Hour	R/Manhour	28,79	52,00	1 497,08
Casual Labour Suckering/Hour	R/Manhour	28,79	49,00	1 410,71
Casual Labour Plant shoots/Hour	R/Manhour	28,79	28,00	806,12
Casual Labour Top shoots/Hour	R/Manhour	28,79	20,00	575,80
Casual Labour Removal of leaves/Hour	R/Manhour	28,79	25,00	719,75
Casual Labour hand cultivation/Hour	R/Manhour	28,79	33,00	950,07
ELECTRICITY				5 323,00
ELECTRICITY COST	R/Ha	6 521,00	1,00	5 323,00
GROSS MARGIN ABOVE DIRECTLY ALLOCATABLE VARIABLE COSTS				-325 193,02
INDIRECTLY ALLOCATABLE VARIABLE COSTS				25 860,81
C) PRE-HARVEST COST				
Fuel	L	21,88	875,51	19 156,16
Repairs & Maintenance				6 704,66
D) HARVEST COST				
Fuel	L	21,88	0,00	0,00
Repairs & Maintenance				0,00
GROSS MARGIN ABOVE TOTAL ALLOCATABLE VARIABLE COSTS				-351 053,83

PARAMETRIC BUDGETING

LOCAL MARKET

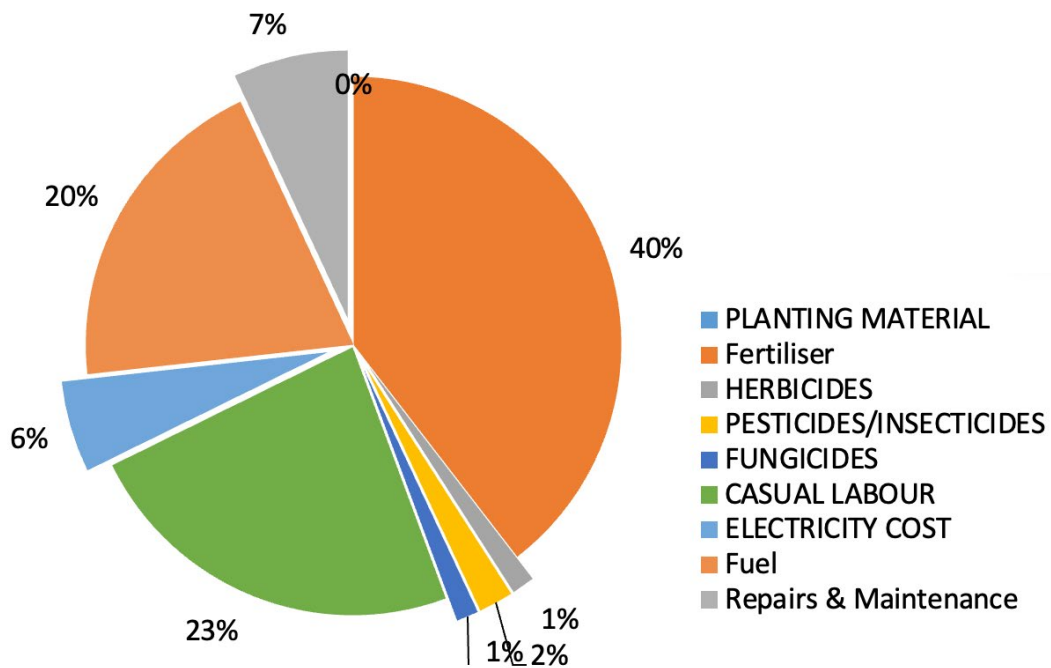
Price/ ton(R)	6000,00
Quantity (ton/ha)	-
Gross income (R/ha)	-
Total expenditure (R/ha)	351 053,83
Gross margin (R/ha)	-351 053,83

SENSITIVITY ANALYSIS

YIELD (ton/ha)	PRICE (R/ton)				
	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
YIELD CHANGE AT 10% INCREMENTS					
-R351 053,83	5400,00	5700,00	6000,00	6 300,00	6 600,00
0,00	-R351 054	-R351 054	-R351 054	-R351 054	-R351 054
0,00	-R351 054	-R351 054	-R351 054	-R351 054	-R351 054
0,00	-R351 054	-R351 054	-R351 054	-R351 054	-R351 054
0,00	-R351 054	-R351 054	-R351 054	-R351 054	-R351 054
0,00	-R351 054	-R351 054	-R351 054	-R351 054	-R351 054
BREAKEVEN YIELD (ton/ha)	65	62	59	56	53

COST OF PRODUCTION	
PLANTING MATERIAL	90 399
Fertiliser	8680,91
HERBICIDES	1337,67
PESTICIDES/INSECTICIDES	2574,58
FUNGICIDES	1630,29
POLES & WIRING	123 695,79
CASUAL LABOUR	91 552,20
ELECTRICITY COST	5 323,00
Fuel	19 156,16
Repairs & Maintenance	6704,66
TOTAL	260 655,26

Summary of cost of production



34. WINE GRAPES

Wine Grapes Irrigation Production: Year 2-4					
Description	Unit	Price Per Unit	Quantity	Per Ha	Value Per Yield Unit
GROSS INCOME			14,36	86 160,00	6000,00
Product Income					
		0,00	0,00	0,00	0,00
WINE GRAPE	Ton	6€000,00	14,36	86 160,00	6000,00
MARKETING COSTS	Ton	0,00	0,00	0,00	0,00
GROSS INCOME minus MARKETING COSTS				86 160,00	6€000,00
TOTAL ALLOCATABLE VARIABLE COSTS				96 644,34	6 730,11
DIRECTLY ALLOCATABLE VARIABLE COSTS				70 783,52	4 929,21
A) PRE-HARVEST COST					
FERTILISER				38 205,33	2 660,54
Nitrogen (N)	Ton	18 055,00	1,30	23 471,50	1 634,51
Phosphate	Kg	105,00	0,50	52,50	3,66
Potassium (K)	Ton	22 311,00	0,50	11 155,50	776,85
Urea HB Granular 46%	Ton	10 227,00	0,20	2 045,40	142,44
Single Super Phosphate 10.5%	Ton	5921,71	0,25	1480,43	103,09
HERBICIDES				1€337,67	93,15
Polyether modified trisiloxane	L	284,57	3,50	996,00	69,36
Metaldehyde ¹	Kg	42,71	8,00	341,67	23,79
PESTICIDES/INSECTICIDES				2€024,13	140,96
Spirotetramat	L	3€260,60	0,50	1€630,30	113,53
Dichlorvos	L	122,91	0,08	9,83	0,68
Alpha-cypermethrin	L	192,00	2,00	384,00	26,74
FUNGICIDES				1€285,18	89,50
Dimethomorph\Mancozeb	Kg	274,59	0,20	54,92	3,82
Phosphoric Acid (Phosguard)	L	74,49	0,90	67,05	4,67
Cymoxanil	Kg	1€528,41	0,40	611,37	42,57
Copper Oxychloride	Kg	188,64	0,35	66,02	4,60
Boscalid	Kg	2€839,24	0,03	85,18	5,93
Sulphur	Kg	17,26	18,00	310,73	21,64
Proquinazid	L	1€798,30	0,05	89,92	6,26
Penconazole	L	733,93	0,07	51,38	3,58
CASUAL LABOUR				22€608,21	1€574,39
Casual Labour Irrigation/Hour	R/Manhour	28,79	28,00	806,12	56,14
Casual Labour Crop Control/Hour	R/Manhour	28,79	73,00	2€101,67	146,36
Casual Labour Trellis pre-prune /Hour	R/Manhour	28,79	34,00	978,86	68,17
Casual Labour Prune clearing/Hour	R/Manhour	28,79	113,00	3€253,27	226,55
Casual Labour Blunt pruning/Hour	R/Manhour	28,79	52,00	1€497,08	104,25
Casual Labour Suckering/Hour	R/Manhour	28,79	49,00	1€410,71	98,24
Casual Labour Plant shoots/Hour	R/Manhour	28,79	28,00	806,12	56,14
Casual Labour Top shoots/Hour	R/Manhour	28,79	20,00	575,80	40,10
Casual Labour Removal of leaves/Hour	R/Manhour	28,79	25,00	719,75	50,12
Casual Labour Harvesting Bush Vines/Hour	R/Manhour	28,79	186,68	5€374,52	374,27
Casual Labour Harvesting of Trellis/Hour	R/Manhour	28,79	143,60	4€134,24	287,90
Casual Labour hand cultivation/Hour	R/Manhour	28,79	33,00	950,07	66,16

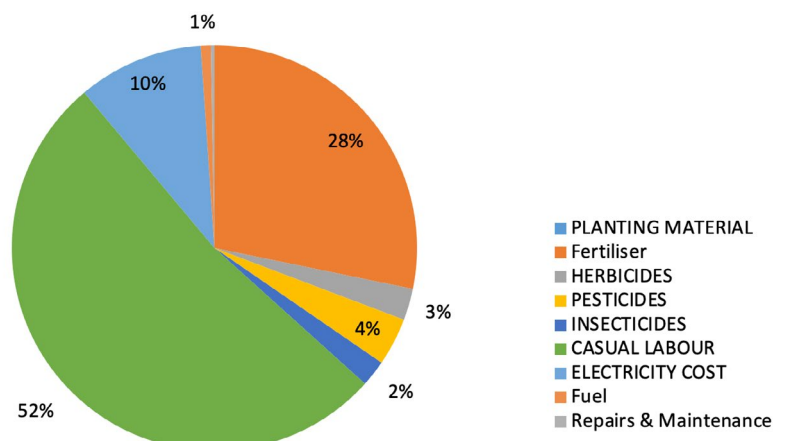
ELECTRICITY				5323,00	241,08
ELECTRICITY COST	R/ha	6521,00	1,00	5323,00	241,08
GROSS MARGIN ABOVE DIRECTLY ALLOCATABLE VARIABLE COSTS				79 971,62	3621,90
INDIRECTLY ALLOCATABLE VARIABLE COSTS				575,10	26,05
C) PRE-HARVEST COST					
Fuel	L	21,88	19,47	426,00	19,29
Repairs & Maintenance				149,10	6,75
D) HARVEST COST					
Fuel	L	21,88	0,00	0,00	0,00
Repairs & Maintenance				0,00	0,00
GROSS MARGIN ABOVE TOTAL ALLOCATABLE VARIABLE COSTS				79 396,52	3595,86

PARAMETRIC BUDGETING	
Price/ ton(R)	6000,00
Quantity (ton/ha)	22,08
Gross income (R/ha)	132 480,00
Total expenditure (R/ha)	53 083,48
Gross margin (R/ha)	79 396,52

SENSITIVITY ANALYSIS					
YIELD (ton/ha)	PRICE (R/ton)				
YIELD CHANGE AT 10% INCREMENTS	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
R79 396,52	5 400,00	5 700,00	6 000,00	6 300,00	6 600,00
17,66	R42 302	R47 601	R52 901	R58 200	R63 499
19,87	R54 225	R60 187	R66 149	R72 110	R78 072
22,08	R66 149	R72 773	R79 397	R86 021	R92 645
24,29	R78 072	R85 358	R92 645	R99 931	R107 217
26,50	R89 995	R97 944	R105 893	R113 841	R121 790
BREAKEVEN YIELD (ton/ha)	10	9	9	8	8

COST OF PRODUCTION	
PLANTING MATERIAL	-
Fertiliser	14 990,90
HERBICIDES	1337,67
PESTICIDES	2024,13
INSECTICIDES	1112,51
CASUAL LABOUR	27 720,16
ELECTRICITY COST	5323,00
Fuel	426,00
Repairs & Maintenance	149,10
TOTAL	53 083,48

Summary of cost of production



34. WINE GRAPES

Wine Grapes Irrigation Production: Year 6-7					
Description	Unit	Price Per Unit	Quantity	Per Ha	Value Per Yield Unit
GROSS INCOME			33,38	200 280,00	
Product Income					
		0,00	0,00	0,00	0,00
WINE GRAPE	Ton	6000,00	33,38	200 280,00	6000,00
MARKETING COSTS	Ton	0,00	33,38	0,00	0,00
GROSS INCOME minus MARKETING COSTS				200 280,00	6000,00
TOTAL ALLOCATABLE VARIABLE COSTS				60 517,87	1813,00
DIRECTLY ALLOCATABLE VARIABLE COSTS				59 942,77	1795,77
A) PRE-HARVEST COST					
FERTILISER				15 153,47	453,97
Nitrogen (N)	Ton	18 055,00	0,40	7222,00	216,36
Phosphate	Kg	105,00	0,30	31,50	0,94
Potassium (K)	Ton	22n311,00	0,30	6 693,30	200,52
Magnesium	Ton	16 257,00	0,06	975,42	29,22
Zinc	Ton	4856,58	0,05	228,26	6,84
Copper	Kg	175,77	0,02	2,99	0,09
HERBICIDES				1750,37	52,44
Polyether modified trisiloxane	L	284,57	4,50	1280,57	38,36
Metaldehyde ¹	Kg	42,71	11,00	469,80	14,07
PESTICIDES/INSECTICIDES				2024,13	60,64
Spirotetramat	L	3260,60	0,50	1630,30	48,84
Dichlorvos	L	122,91	0,08	9,83	0,29
Alpha-cypermethrin	L	192,00	2,00	384,00	11,50
FUNGICIDES				2026,26	60,70
Pyrimethanil	L	312,58	0,24	75,02	2,25
Fenhexamid	L	3Ê265,99	0,08	261,28	7,83
Ascorbic Acid	L	1Ê126,64	1,50	1Ê689,97	50,63
INSECTICIDES				489,11	14,65
Cadusafos	L	222,50	1,50	333,75	10,00
Spinosad 480 SC	L	5Ê118,74	0,02	102,37	3,07
Indoxacarb	L	1Ê324,54	0,04	52,98	1,59
CASUAL LABOUR				35 202,68	1054,60
Casual Labour Irrigation/Hour	R/Manhour	28,79	28	806,12	24,15
Casual Labour Crop Control/Hour	R/Manhour	28,79	73	2101,67	62,96
Casual Labour Trellis pre-prune /Hour	R/Manhour	28,79	34	978,86	29,32
Casual Labour Prune clearing/Hour	R/Manhour	28,79	113	3253,27	97,46
Casual Labour Blunt pruning/Hour	R/Manhour	28,79	52	1497,08	44,85
Casual Labour Suckering/Hour	R/Manhour	28,79	49	1410,71	42,26
Casual Labour Plant shoots/Hour	R/Manhour	28,79	28	806,12	24,15
Casual Labour Top shoots/Hour	R/Manhour	28,79	20	575,80	17,25
Casual Labour Removal of leaves/Hour	R/Manhour	28,79	25	719,75	21,56
Casual Labour Harvesting Bush Vines/Hour	R/Manhour	28,79	434	12 493,13	374,27
Casual Labour Harvesting of Trellis/Hour	R/Manhour	28,79	334	9610,10	287,90

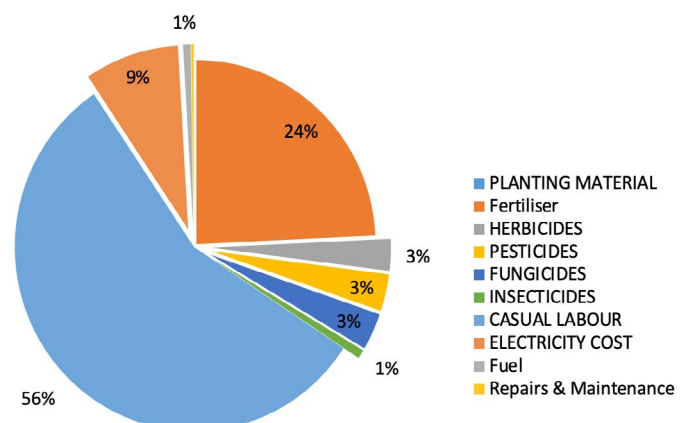
Casual Labour hand cultivation/Hour	R/Manhour	28,79	33	950,07	28,46
ELECTRICITY				5323,00	159,47
ELECTRICITY COST	R/Ha	6521,00	1,00	5323,00	159,47
GROSS MARGIN ABOVE DIRECTLY ALLOCATABLE VARIABLE COSTS					4204,23
INDIRECTLY ALLOCATABLE VARIABLE COSTS					575,10
C) PRE-HARVEST COST					
Fuel	L	21,88	19,47	426,00	12,76
Repairs & Maintenance				149,10	4,47
D) HARVEST COST					
Fuel	L	21,88	0,00	0,00	0,00
Repairs & Maintenance				0,00	0,00
GROSS MARGIN ABOVE TOTAL ALLOCATABLE VARIABLE COSTS					4187,00

PARAMETRIC BUDGETING	
Price/ ton(R)	6000,00
Quantity (ton/ha)	33,38
Gross income (R/ha)	200 280,00
Total expenditure (R/ha)	60 517,87
Gross margin (R/ha)	139 762,13

SENSITIVITY ANALYSIS					
YIELD (ton/ha)	PRICE (R/ton)				
YIELD CHANGE AT 10% INCREMENTS	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
R139 762,13	5400,00	5700,00	6000,00	6300,00	6600,00
26,70	R83 684	R91 695	R99 706	R107 717	R115 729
30,04	R101 709	R110 722	R119 734	R128 747	R137 759
33,38	R119 734	R129 748	R139 762	R149 776	R159 790
36,72	R137 759	R148 775	R159 790	R170 806	R181 821
40,06	R155 785	R167 801	R179 818	R191 835	R203 852
BREAKEVEN YIELD (ton/ha)	11	11	10	10	9

COST OF PRODUCTION	
PLANTING MATERIAL	-
Fertiliser	15 153,47
HERBICIDES	1 750,37
PESTICIDES	2 024,13
FUNGICIDES	2 026,26
INSECTICIDES	489,11
CASUAL LABOUR	35 202,68
ELECTRICITY COST	5 323,00
Fuel	426,00
Repairs & Maintenance	149,10
TOTAL	62 544,13

Summary of cost of production



35. WATERMELON

Watermelon Open Field Production Year 1					
	Unit	Price Per Unit	Quantity	Per Ha	Value Per Yield Unit
GROSS INCOME			50,00		3Ê200,00
Product Income					
Watermelon- Fresh market	Ton	R3200,00	50	160 000,00	3200,00
MARKETING COSTS (12,5% FRESH PRODUCE MARKET FEES)		12,5%	50	20 000,00	400,00
GROSS INCOME minus MARKETING COSTS					2800,00
TOTAL ALLOCATABLE VARIABLE COSTS					2410,97
DIRECTLY ALLOCATABLE VARIABLE COSTS					2195,85
A) PRE-HARVEST COST					
PLANTING MATERIAL				184 68,75	369,38
Watermelon	Seedlings	1,97	9375,00	184 68,75	369,38
FERTILISER				264 68,90	529,38
Ammonium Sulphate	Ton	14 344,67	0,15	2151,70	43,03
Calcium Nitrate	Ton	9 640,00	0,15	1446,00	28,92
Potassium Nitrate	Ton	31 704,86	0,15	4755,73	95,11
Fertilisers/Fertigation	Ha	24 897,98	0,00	0,00	0,00
Turbo-31 10:1:5	Ton	12 834,20	0,00	0,00	0,00
Single Super Phosphate 10.5%	Ton	12 854,70	0,00	0,00	0,00
Maxiphos 20	Ton	19 117,14	0,00	0,00	0,00
Urea HB Granular 46%	Ton	12 968,32	0,00	0,00	0,00
KCL	Ton	17M353,50	0,00	0,00	0,00
Lime Ammonium Nitrate (28)	Ton	15 752,58	1,15	18 115,47	362,31
PESTICIDES				7615,64	152,31
Pest/Insects/Fungus	Ha	22 189,61	0,00	0,00	0,00
Spinetoram 250 WG	Kg	7955,21	0,00	0,00	0,00
Spinosad	L	242,98	3,90	947,62	18,95
Lamda-cyhalothrin	L	175,00	3,60	630,00	12,60
Cadusafos	L	268,50	20,00	5370,00	107,40
Dimethoate 400 EC	L	185,56	3,60	668,02	13,36
Alpha-cypermethrin	L	835,02	0,00	0,00	0,00
HERBICIDES				324,66	6,49
Paraquat 200SL	L	108,22	3,00	324,66	6,49
Glyphosate	L	145,85	0,00	0,00	0,00
FUNGICIDES				978,57	19,57
Mancozeb / Metalaxyl	Kg	177,56	4,00	710,24	14,20
Penconazole	L	596,28	0,45	268,33	5,37
CROP MANIPULATION				0,00	0,00
Pollination	Hive	850,00	0,00	0,00	0,00
CASUAL LABOUR				4145,76	82,92
Casual labour Drippers/Hour	R/Manhour	28,79	18,00	518,22	10,36
Casual Labour Planting/Hour	R/Manhour	28,79	36,00	1036,44	20,73
Casual Labour Weeding/Hour	R/Manhour	28,79	90,00	2591,10	51,82

TRELLISSING/ NETTING STRUCTURE				0,00	0,00
Pine poles 3.6m (80-99mm) (Class 3)	Each	230,75	0,00	0,00	0,00
Wire (4mm)	500m	1 399,00	0,00	0,00	0,00
Wire Round 2mm (2000m)	50KG	1 470,00	0,00	0,00	0,00
PPC Cement	50KG	115,00	0,00	0,00	0,00
Nails 3 inches	kg	28,00	0,00	0,00	0,00
Stone 19 mm	40KG	29,00	0,00	0,00	0,00
Sand	40KG	29,00	0,00	0,00	0,00
Staples pre-pack 32mm x 2.50mm (25 x 1kg)	Kg	47,50	0,00	0,00	0,00
Shade net	R/Ha	178 000,00	0,00	0,00	
IRRIGATION & ELECTRICITY				0,00	0,00
Irrigation installation	R/Ha	49 500,00	0,00	0,00	0,00
Electricity cost	Ha	17 565,62	0,00	0,00	0,00
B) HARVEST COST				51 790,00	1035,80
CASUAL LABOUR				28 790,00	575,80
Casual Labour Harvesting/Hour	R/Manhour	28,79	1 000,00	28 790,00	575,80
Casual Labour Sorters	R/Manday		100,00	0,00	0,00
CONTRACT WORK				23 000,00	460,00
Transport produce to Market	Trip	11 500,00	2,00	23 000,00	460,00
Transport on farm	Kg	0,00	0,00	0,00	0,00
GROSS MARGIN ABOVE DIRECTLY ALLOCATABLE VARIABLE COSTS				30 207,73	604,15
INDIRECTLY ALLOCATABLE VARIABLE COSTS				10 756,14	215,12
C) PRE-HARVEST COST				2 079,38	41,59
Fuel	L	21,88	70	1 528,96	30,58
Repairs & Maintenance				550,43	11,01
D) HARVEST COSTS				8 676,76	173,54
Fuel	L	21,88	344,84	7 545,01	150,90
Repairs & Maintenance				1 131,75	22,64
GROSS MARGIN ABOVE TOTAL ALLOCATABLE VARIABLE COSTS				19 451,59	389,03

PARAMETRIC BUDGETING

LOCAL MARKET

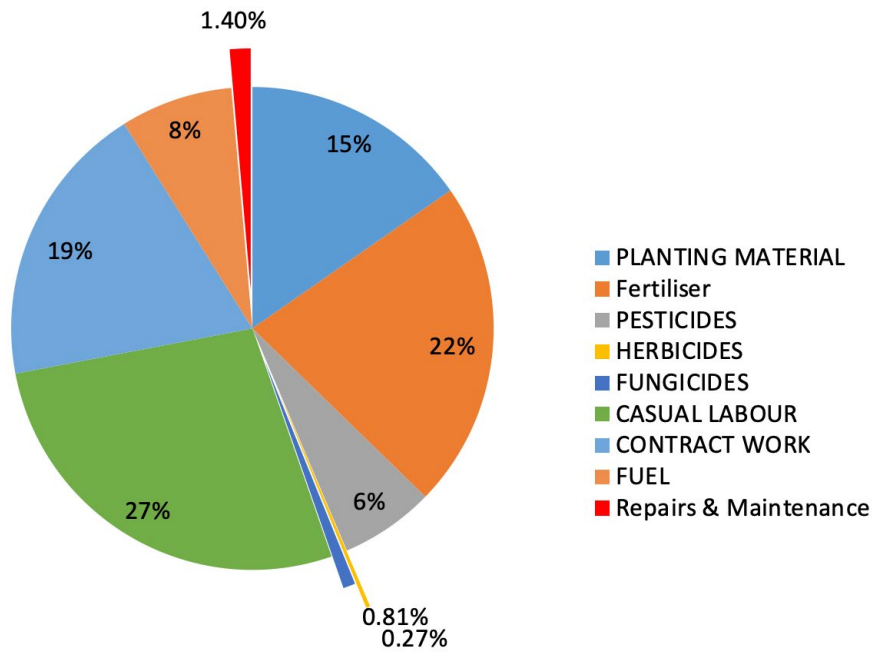
Price/ ton(R)	3 200,00
Quantity (ton/ha)	50,00
Gross income (R/ha)	160 000,00
Marketing cost 12,5% Fresh Produce Market Fee	20 000,00
Total expenditure (R/ha)	120 548,41
Gross margin (R/ha)	19 451,59

SENSITIVITY ANALYSIS

YIELD (ton/ha)	PRICE (R/ton)				
YIELD CHANGE AT 10% INCREMENTS	LESS 10%	LESS 5%	ACTUAL	ADD 5 %	ADD 10%
R19 451,59	2 880,00	3 040,00	3 200,00	3360,00	3520,00
40,00	-R5 348	R1 052	R7 452	R13 852	R20 252
45,00	R9 052	R16 252	R23 452	R30 652	R37 852
50,00	R23 452	R31 452	R39 452	R47 452	R55 452
55,00	R37 852	R46 652	R55 452	R64 252	R73 052
60,00	R52 252	R61 852	R71 452	R81 052	R90 652
BREAKEVEN YIELD (ton/ha)	41,9	39,7	37,7	35,9	34,2

COSTS OF PRODUCTION	R/HA
PLANTING MATERIAL	18 468,75
Fertiliser	26 468,90
PESTICIDES	7 615,64
HERBICIDES	324,66
FUNGICIDES	978,57
CASUAL LABOUR	32 935,76
CONTRACT WORK	23 000,00
FUEL	9073,97
Repairs & Maintenance	1682,18
TOTAL	120 548,41

Summary of cost of production





Land and Agricultural Developmental Bank of South Africa,
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