

## APPENDIX G: APPLE AND VALENCIA GROSS MARGINS

**Table 1: Conventional Apple Production Gross Margins**

Apples - Conventional											
Item	Product		Unit	Price/unit	Quantity			Rands per ha			
		Yield			Low	Med	High	Low	Med	High	
<b>Income</b>			tons	966	47.7	53	58.3				
Market outlet		%									
Apples		100%	tons	966	47.7	53	58.3	46,078.20	51,198.00	56,317.80	
Marketing commission				10.0%							
<b>Gross Income</b>								<b>46,078.20</b>	<b>51,198.00</b>	<b>56,317.80</b>	
<b>Variable costs</b>											
<b>Apple trees</b>			each	966	0	0	0	0	0	0	
<b>sub-total</b>								<b>0</b>	<b>0</b>	<b>0</b>	
<b>Weed control</b>											
Labour	Lance holders		md	65.4	1	1	1	65.40	65.40	65.40	
Material	Gramoxone		litre	52.38	12	12	12	628.56	628.56	628.56	
Equipment	Boom sprayer		hrs	60.72	8	8	8	485.76	485.76	485.76	
	Trac+Trailer Water		hrs	65.34	0.8	0.8	0.8	52.27	52.27	52.27	
<b>Sub-total</b>								<b>1,231.99</b>	<b>1,231.99</b>	<b>1,231.99</b>	
<b>Pest &amp; Disease Control</b>											
Labour	Scouting		md	65.4	1	1	1	65.40	65.40	65.40	
Materials	Dursban		litre	72.38	5.28	5.28	5.28	382.17	382.17	382.17	
	DNOC Winter Oil		litre	14.48	67.2	67.2	67.2	973.06	973.06	973.06	
	Hunter		litre	654.68	0.63	0.63	0.63	412.45	412.45	412.45	
	Sumicidin		litre	89	0.65	0.65	0.65	57.85	57.85	57.85	
	Azinphos-methyl		litre	172.19	10.32	10.32	10.32	1,777.00	1,777.00	1,777.00	
	Dormex		litre	124.24	16.8	16.8	16.8	2,087.23	2,087.23	2,087.23	
	Isomate M100		kg	1.5	200	200	200	300.00	300.00	300.00	
	Agral 90		litre	84.11	0.6	0.6	0.6	50.47	50.47	50.47	
	Trimangol		litre	31.38	18.36	18.36	18.36	576.14	576.14	576.14	
	Stroby		kg	1411.89	0.42	0.42	0.42	592.99	592.99	592.99	
	Rubigan		litre	618.99	0.43	0.43	0.43	266.17	266.17	266.17	
Equipment	Mist blower		hrs	82.94	23	23	23	1,907.62	1,907.62	1,907.62	
<b>sub-total</b>								<b>9,448.54</b>	<b>9,448.54</b>	<b>9,448.54</b>	
<b>Fertiliser</b>											
Labour	Field attendant		md	65.4	1	1	1	65.40	65.40	65.40	
Materials	Compound 1:0:1 (36)		kg	1.79	66.81	66.81	66.81	119.59	119.59	119.59	
	Compound 3:0:5 (35)		kg	2.2	170	170	170	374.00	374.00	374.00	
	MAP		kg	2.49	20	20	20	49.80	49.80	49.80	
	KCL		kg	2.42	90	90	90	217.80	217.80	217.80	
	Urea		kg	2.01	91	91	91	182.91	182.91	182.91	
	AN 19%		kg	1.05	240	240	240	252.00	252.00	252.00	
	Calcium Nitrate		kg	4.86	97.2	97.2	97.2	472.39	472.39	472.39	
	Solubor		kg	14.05	8.24	8.24	8.24	115.77	115.77	115.77	
	Copper Oxychloride		kg	18.49	2.4	2.4	2.4	44.38	44.38	44.38	
	Zinc Oxide		kg	12.61	3.96	3.96	3.96	49.94	49.94	49.94	
Equipment	Fert Spreader		hrs	70.82	10	10	10	708.20	708.20	708.20	
	Loader		hrs	36.68	2.5	2.5	2.5	91.70	91.70	91.70	
<b>sub-total</b>								<b>2,743.88</b>	<b>2,743.88</b>	<b>2,743.88</b>	
<b>Mechanical operations</b>											
	Rip/chisel		ha	500.00	1	1	1	500.00	500.00	500.00	
	Disc harrow		ha	500.00	1	1	1	500.00	500.00	500.00	
	Plant		ha	400.00	0.5	0.5	0.5	200.00	200.00	200.00	
<b>sub-total</b>								<b>1,200.00</b>	<b>1,200.00</b>	<b>1,200.00</b>	
<b>Labour</b>											
	Harvest		ha	42.00	30	30	30	1,260.00	1,260.00	1,260.00	
<b>sub-total</b>								<b>1,260.00</b>	<b>1,260.00</b>	<b>1,260.00</b>	
<b>Packaging</b>		0.05	boxes	0.82	782.28	869.20	956.12	641.47	712.74	784.02	
<b>Transport</b>											
	DTP	2	kms	R/km/ton	1.63	155.502	172.78	190.058	506.94	563.26	619.59
<b>sub-total</b>								<b>506.94</b>	<b>563.26</b>	<b>619.59</b>	
<b>Contingencies</b>			5%					<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	
<b>Total variable costs</b>	elopment Strategy – Final Report, March 2008							<b>15,800.82</b>	<b>15,928.42</b>	<b>16,056.02</b>	
<b>Gross margin</b>	natural Resources							<b>30,277.38</b>	<b>35,269.58</b>	<b>40,261.78</b>	

**Table 2: Organic Apple Gross Margins**

Apples - Organic											
Item	Product	Yield	Unit	Price/unit	Quantity			Rands per ha			
					Low	Med	High	Low	Med	High	
<b>Income</b>			tons	1872	22.95	25.5	28.05				
Market outlet		%									
Apples		100%	tons	1872	22.95	25.5	28.05	42,962.40	47,736.00	52,509.60	
Marketing commission				10.0%							
<b>Gross Income</b>								<b>42,962.40</b>	<b>47,736.00</b>	<b>52,509.60</b>	
<b>Variable costs</b>											
<b>Apple trees</b>			tons	0	0	0	0	0	0	0	
<b>sub-total</b>								<b>0</b>	<b>0</b>	<b>0</b>	
<b>Weed control</b>											
Labour	Hand weed		md	65.4	20	20	20	1,308.00	1,308.00	1,308.00	
	Mulching		md	65.4	4	4	4	261.60	261.60	261.60	
Material	Straw bales-mulch		each	6	380	380	380	2,280.00	2,280.00	2,280.00	
Equipment	Trac-trailer hand weed		hrs	65.34	2	2	2	130.68	130.68	130.68	
	Trac+Trailer Straw mulch		hrs	65.34	8	8	8	522.72	522.72	522.72	
<b>Sub-total</b>								<b>4,503</b>	<b>4,503</b>	<b>4,503</b>	
<b>Pest &amp; Disease Control</b>											
Labour	Scouting		md	65.4	1	1	1	65.40	65.40	65.40	
	Mating disruption		md	65.4	1	1	1	65.40	65.40	65.40	
Materials	Traps		each	23.3	1	1	1	23.30	23.30	23.30	
	Traps pills		each	38.36	9	9	9	345.24	345.24	345.24	
	SIR		/ha	25	12	12	12	300.00	300.00	300.00	
	Mating disruption		each	1.75	1000	1000	1000	1,750.00	1,750.00	1,750.00	
	Winter oil		litre	9.2	80	80	80	736.00	736.00	736.00	
	Compost Extract Foliar		R/ha	60	7	7	7	420.00	420.00	420.00	
	Compost Extract Ground		R/ha	60	6	6	6	360.00	360.00	360.00	
	Wettable Sulphur		kg	15	18	18	18	270.00	270.00	270.00	
	CM Virus		litre	320	10	10	10	3,200.00	3,200.00	3,200.00	
	BT Spray		litre	700	0.13	0.13	0.13	91.00	91.00	91.00	
	Bioneem		litre	43.56	0.4	0.4	0.4	17.42	17.42	17.42	
	Bioworm		kg	266	0.03	0.03	0.03	7.98	7.98	7.98	
Equipment	Mist blower		hrs	82.94	32.16	32.16	32.16	2,667.35	2,667.35	2,667.35	
<b>sub-total</b>								<b>10,319</b>	<b>10,319</b>	<b>10,319</b>	
<b>Fertiliser</b>											
Labour	Compost spreading		md	65.4	10	10	10	654.00	654.00	654.00	
	Bird Guano		md	65.4	1	1	1	65.40	65.40	65.40	
	Potasium Sulphate		md	65.4	1	1	1	65.40	65.40	65.40	
	Ground kelp		md	65.4	0.32	0.32	0.32	20.93	20.93	20.93	
Materials	Calcium Chloride		kg	4	27	27	27	108.00	108.00	108.00	
	Anti Leaf-burn		kg	38.63	12	12	12	463.56	463.56	463.56	
	Trace element Zn		litre	29	2	2	2	58.00	58.00	58.00	
	Trace element Mg		litre	16.5	5	5	5	82.50	82.50	82.50	
	Seagro		litre	19.72	15	15	15	295.80	295.80	295.80	
	Compost Own		m3	100	2	2	2	200.00	200.00	200.00	
	Compost bought		m3	220	3	3	3	660.00	660.00	660.00	
	Bird Guano		kg	4.95	70	70	70	346.50	346.50	346.50	
	Potasium Sulphate		kg	2.97	50	50	50	148.50	148.50	148.50	
	Ground kelp		kg	1.5	48	48	48	72.00	72.00	72.00	
Equipment	Mist blower		hrs	82.94	11	11	11	912.34	912.34	912.34	
	Trac-trailer Compost		hrs	65.34	25	25	25	1,633.50	1,633.50	1,633.50	
	Trac-trailer Others		hrs	65.34	1.32	1.32	1.32	86.25	86.25	86.25	
<b>sub-total</b>								<b>5,873</b>	<b>5,873</b>	<b>5,873</b>	
<b>Mechanical operations (c)</b>											
	Rip/chisel		ha	500.00	1	1	1	500	500	500	
	Disc harrow		ha	500.00	1	1	1	500	500	500	
	Plant		ha	400.00	0.5	0.5	0.5	200	200	200	
<b>sub-total</b>								<b>1,200</b>	<b>1,200</b>	<b>1,200</b>	
<b>Labour</b>											
	Harvest		ha	42.00	30	30	30	1,260	1,260	1,260	
<b>sub-total</b>								<b>1,260</b>	<b>1,260</b>	<b>1,260</b>	
<b>Packaging</b>		0.05	Trays	0.82	376.38	418.20	460.02	309	343	377	
<b>Transport</b>											
	DTP	2	kms	R/km/ton	1.63	74.817	83.13	91.443	244	271	298
<b>sub-total</b>								<b>244</b>	<b>271</b>	<b>298</b>	
<b>Contingencies</b>			5%					<b>960</b>	<b>963</b>	<b>966</b>	
<b>Total variable costs</b>								<b>20,165</b>	<b>20,229</b>	<b>20,293</b>	
<b>Gross margin</b>								<b>22,798</b>	<b>27,507</b>	<b>32,216</b>	

**Table 3: Conventional Valencia Gross Margins**

Valencias Conventional					Stable production						
Item	Product		Unit	Price/unit	Quantity			Rands per ha			
					Low	Med	High	Low	Med	High	
<b>Income</b>		Yield	t	1030.92	72	80	88				
Market outlet		%									
Valencias		100%	t	1030.92	72	80	88	74,226	82,474	90,721	
Marketing commission				10.0%							
<b>Gross Income</b>								<b>74,226</b>	<b>82,474</b>	<b>90,721</b>	
<b>Variable costs</b>											
<b>Valencia trees</b>			kg	10.00	0	0	0	0	0	0	
<b>sub-total</b>								<b>0</b>	<b>0</b>	<b>0</b>	
<b>Chemicals</b>											
Ridomil			kg	44.9	5.92	5.92	5.92	266	266	266	
Azodrin			L	62	1	1	1	62	62	62	
Temik			kg	75.73	4.81	4.81	4.81	364	364	364	
Solubor			kg	16.39	7.4	7.4	7.4	121	121	121	
Measurol			kg	36.2	150	150	150	5,430	5,430	5,430	
Curacron			L	14.75	480	480	480	7,080	7,080	7,080	
Agrioil			L	7	30	30	30	210	210	210	
Benlate			kg	189	3.7	3.7	3.7	699	699	699	
Dipterex			kg	106.2	0.7	0.7	0.7	74	74	74	
Hamlure			L	14.72	9	9	9	132	132	132	
Dithane			kg	28.12	55.5	55.5	55.5	1,561	1,561	1,561	
<b>sub-total</b>								<b>16,000</b>	<b>16,000</b>	<b>16,000</b>	
<b>Fertiliser</b>											
	LAN (28)		t	2,414.00	0.37	0.37	0.37	893	893	893	
	Pot. Chloride		t	3,918.00	0.43	0.43	0.43	1,685	1,685	1,685	
	SuperPhosphate		t	1,830.00	0.33	0.33	0.33	604	604	604	
	Zinc Oxide		t	1,482.00	0.005	0.005	0.005	7	7	7	
	Copper Oxy Chloride		t	1,862.00	0.02	0.02	0.02	37	37	37	
	Lime		t	1,500.00	0	0	0	0	0	0	
<b>sub-total</b>								<b>3,226</b>	<b>3,226</b>	<b>3,226</b>	
<b>Mechanical operation</b>											
	Rip/chisel		ha	500.00	0	0	0	0	0	0	
	Disc harrow		ha	500.00	0	0	0	0	0	0	
	Plant		ha	400.00	0.5	0.5	0.5	200	200	200	
	Spray		ha	100.00	1	1	1	100	100	100	
<b>sub-total</b>								<b>300</b>	<b>300</b>	<b>300</b>	
<b>Labour</b>											
	Pre harvest		ha	37.00	20	20	20	740	740	740	
	Harvest		ha	42.00	30	30	30	1,260	1,260	1,260	
<b>sub-total</b>								<b>2,000</b>	<b>2,000</b>	<b>2,000</b>	
<b>Packaging</b>		0.05	Bag	0.82	1,180.80	1,312.00	1,443.20	<b>968</b>	<b>1,076</b>	<b>1,183</b>	
<b>Transport</b>											
	DTP	2	kms	R/km/ton	1.63	234.72	260.8	286.88	383	425	468
<b>sub-total</b>								<b>383</b>	<b>425</b>	<b>468</b>	
<b>Contingencies</b>			5%					1,144	1,151	1,159	
<b>Total variable costs</b>								<b>24,021</b>	<b>24,179</b>	<b>24,337</b>	
<b>Gross margin</b>								<b>50,205</b>	<b>58,295</b>	<b>66,384</b>	

**Table 4: Organic Valencia Gross Margins**

Valencias Organic						Stable production					
Item	Product		Unit	Price/unit	Quantity/ha			Rands per ha			
					Low	Med	High	Low	Med	High	
<b>Income</b>		Yield	t	1665.00	36	40	44				
Market outlet		%									
Valencias		100%	t	1665.00	36	40	44	59,940	66,600	73,260	
Marketing commission				10.0%							
<b>Gross Income</b>								<b>59,940</b>	<b>66,600</b>	<b>73,260</b>	
<b>Variable costs</b>											
<b>Valencia trees</b>			kg	10.00	0	0	0	0	0	0	
sub-total								<b>0</b>	<b>0</b>	<b>0</b>	
<b>Production Costs</b>											
Fertilizer				13800	1	1	1	13,800	13,800	13,800	
Thrip				1200	1	1	1	1,200	1,200	1,200	
Red scale				2540	1	1	1	2,540	2,540	2,540	
FCM				0	1	1	1	0	0	0	
Mealybug				600	1	1	1	600	600	600	
Ant control				900	1	1	1	900	900	900	
Fruit fly				170	1	1	1	170	170	170	
Black spot				2200	1	1	1	2,200	2,200	2,200	
Weeds				2900	1	1	1	2,900	2,900	2,900	
Picking costs				2700	1	1	1	2,700	2,700	2,700	
Pruning				400	1	1	1	400	400	400	
Certification				333	1	1	1	333	333	333	
Sanitation				200	1	1	1	200	200	200	
Water				550	1	1	1	550	550	550	
Electricity				440	1	1	1	440	440	440	
sub-total								<b>28,933</b>	<b>28,933</b>	<b>28,933</b>	
<b>Mechanical operations (op)</b>											
	Rip/chisel			500.00	0	0	0	0	0	0	
	Disc harrow			500.00	0	0	0	0	0	0	
	Plant			400.00	0	0	0	0	0	0	
	Spray			100.00	0	0	0	0	0	0	
sub-total								<b>0</b>	<b>0</b>	<b>0</b>	
<b>Transport</b>											
	DTP	2	kms	R/km/ton	1.63	117.36	130.4	143.44	191	213	234
sub-total									<b>191</b>	<b>213</b>	<b>234</b>
<b>Contingencies</b>				5%					<b>1,456</b>	<b>1,457</b>	<b>1,458</b>
<b>Total variable costs</b>									<b>30,581</b>	<b>30,603</b>	<b>30,625</b>
<b>Gross margin</b>									<b>29,359</b>	<b>35,997</b>	<b>42,635</b>