



Area Unit = 1ha

CARROTS - Processing

2013

						standard budget	your budget
INCOME:	Item	Quantity		Rate	Price		
Anticipated Yield	Grade	50	tonne	@	\$ 170.00 /tonne	\$	8,500.00
A. Gross Income/ha						\$	8,500.00
OPERATING COSTS:							
					\$ Cost		
Seed and Plants	Seed			3 kg/ha	\$ 300.00 /kg	\$	900.00
Fertiliser	Single Super			400 kg/ha	\$ 0.48 /kg	\$	192.00
	Calcium Nitrate			175 kg/ha	\$ 0.76 /kg	\$	133.00
	Potassium Nitrate			175 kg/ha	\$ 1.32 /kg	\$	231.00
	Magnesium Nitrate			125 kg/ha	\$ 1.28 /kg	\$	160.00
	Urea			60 kg/ha	\$ 0.86 /kg	\$	51.60
	Micro Nutrients			5 L/ha	\$ 6.50 /L	\$	32.50
Fuel	Cultivate	15	L/hr	1.4 hr/ha	\$ 1.15 /L	\$	24.15
	Lister	15	L/hr	0.5 hr/ha	\$ 1.15 /L	\$	8.63
	Drill Fertiliser	15	L/hr	0.5 hr/ha	\$ 1.15 /L	\$	8.63
	Bedform	15	L/hr	1.0 hr/ha	\$ 1.15 /L	\$	17.25
	Sowing/Planting	15	L/hr	2.5 hr/ha	\$ 1.15 /L	\$	43.13
	Sidedress	12	L/hr	0.5 hr/ha	\$ 1.15 /L	\$	6.90
	Chemical Applications	12	L/hr	1.4 hr/ha	\$ 1.15 /L	\$	19.32
	Harvester	15	L/hr	10.0 hr/ha	\$ 1.15 /L	\$	172.50
	Harvest Trailers	12	L/hr	10.0 hr/ha	\$ 1.15 /L	\$	138.00
Chemicals	Pre-emergent Herbicide	1	application	2.3 L/ha	\$ 8.70 /L	\$	20.01
	Post-emergent Herbicide	1	application	1.7 L/ha	\$ 63.00 /L	\$	103.95
	Insecticide	1	application	0.2 L/ha	\$ 10.00 /L	\$	2.00
	Fungicide	1	application	2.2 kg/ha	\$ 8.24 /kg	\$	18.13
	Fungicide	1	application	1.0 kg/ha	\$ 20.25 /L	\$	20.25
	Fungicide	1	application	0.58 kg/ha	\$ 28.70 /L	\$	16.65
Water	Centre Pivot Irrigation			5.5 ML/ha	\$ 60.00 /ML	\$	330.00
Labour	Tractor Driving	1	person	17.8 hr/ha	\$ 25.00 /hr	\$	445.00
	Irrigation	1	person	1.0 hr/ha	\$ 25.00 /hr	\$	25.00
	Harvester	1	person	10 hr/ha	\$ 25.00 /hr	\$	250.00
	Harvest Trailers	2	people	5 hr/ha	\$ 18.00 /hr	\$	180.00
Electricity/Gas	Irrigation Pumps			5.5 ML/ha	\$ 82.80 /ML	\$	455.40
	Washing			50 hr/ha	\$ 1.05 /hr	\$	52.50
Packaging	Nil						
Freight/Transport	Transported by the Processor			50 t/ha	\$40.00 /tonne		\$2,000.00
Other Costs	Levies			0.50%		\$	42.50
B. Total Operating Costs						\$	6,099.98
Gross Margin per ha (A-B)						\$	2,400.02
Gross Margin /ML						\$	436.37

Break-even Price \$122 / tonne for 50 tonne/ ha

Break-even Yield 31 tonne / ha @ \$170.00 / tonne

PRODUCT TRADE NAMES

The product trade names in this publication are omitted on the understanding that no preference between equivalent products is intended and that the inclusion of a product does not imply endorsement by NSW DPI over any other equivalent product from another manufacturer.



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SENSITIVITY ANALYSIS

TABLE 1- Effect of Yield and Price on Gross Margin /ha

YIELD (tonne)	DELIVERED PRICE (\$/tonne)					
	120.00	145.00	170.00	195.00	220.00	245.00
30	-\$2,081	-\$1,336	-\$591	\$154	\$899	\$1,644
40	-\$1,084	-\$90	\$904	\$1,899	\$2,893	\$3,887
50	-\$87	\$1,156	\$2,400	\$3,644	\$4,888	\$6,131
60	\$910	\$2,403	\$3,896	\$5,389	\$6,882	\$8,375
70	\$1,907	\$3,649	\$5,392	\$7,134	\$8,877	\$10,619

NOTES:

Authors - This budget was prepared by T.Napier, G.Kelly and S.Watts and outlines production for inland NSW.

Area - The Riverina is the main district where carrots are grown specifically for juicing.

Production - Carrots are susceptible to magnesium deficiency on acid soils and boron deficiency on sandy soils.

- Crop establishment can be difficult on the heavier soils if affected by salinity.
- The growing period is dependent on temperature and ranges from 14 to 24 weeks.
- Water usage is 4 to 6 ML/ha and varies with soil, location and season.

Pests, Diseases

& Disorders - Aphids and leaf hoppers are the main insect pests with cavity spot and leaf blight the most common diseases.

Harvesting - Harvesting is fully mechanised using top lifting root harvesters and is carried out almost all year round.

- Carrot harvesters are usually grower owned.
- Cracked, split and deformed carrots can be accepted for processing as they do not affect juice quality.

Packaging - No packaging is required as the crop is delivered in bulk trailers.

Yields - Carrots can be very high yielding with over 50 tonne per hectare achieved by some growers.

Economic - **This budget is ONLY A GUIDE** and is specific to the regions specified. Costs and income can be altered for changes in crop management or input prices. Farmers should use their own figures.

- The budget uses a format similar to the Method 2 calculator in the VegTool Gross Margin program.
- Average prices for 2012 were used for this budget. Overhead costs or GST are not included.

Trim Reference: INT13/37817