



Area Unit = 1ha

BEETROOT - Processing

2013

						standard budget	your budget
INCOME:	Item	Quantity	Rate	Price			
Anticipated Yield	1st Grade	35 tonne/ha	@	\$ 180.00 tonne	\$	6,300.00	
	2nd Grade	tonne/ha	@	\$ - tonne	\$	-	
	Total	35 tonne/ha	Average	\$ 180.00 tonne			
A. Gross Income/ha					\$	6,300.00	
OPERATING COSTS:						\$ Cost	
Seed and Plants	Seed		8 kg/ha	\$ 40.00 /kg	\$	320.00	
Fertiliser	Starter (base fertiliser)		600 kg/ha	\$ 1.05 /kg	\$	630.00	
	Urea (side dressing)		100 kg/ha	\$ 0.86 /kg	\$	86.00	
	Micro Nutrients		5 L/ha	\$ 6.50 /L	\$	32.50	
Fuel	Ground/Bed Preparation	15 L/hr	3.1 hr/ha	\$ 1.15 /L	\$	53.48	
	Sowing/Planting	15 L/hr	0.6 hr/ha	\$ 1.15 /L	\$	10.35	
	Chemical Applications	12 L/hr	1.5 hr/ha	\$ 1.15 /L	\$	20.70	
	Fertiliser Applications	12 L/hr	1.1 hr/ha	\$ 1.15 /L	\$	15.18	
	Harvester/Harvesting	12 L/hr	1.0 hr/ha	\$ 1.15 /L	\$	13.80	
Chemicals	Pre-emergent Herbicide	1 application	1.0 L/ha	\$ 83.00 /L	\$	83.00	
	Pre-emergent Herbicide	1 application	2.5 kg/ha	\$ 20.00 /kg	\$	50.00	
	Post-emergent Herbicide	1 application	1.0 L/ha	\$ 23.00 /L	\$	23.00	
	Insecticide	1 application	2.0 L/ha	\$ 10.00 /L	\$	20.00	
	Insecticide	1 application	1.0 L/ha	\$ 50.00 /L	\$	50.00	
	Fungicide	4 applications	2.2 kg/ha	\$ 10.00 /kg	\$	88.00	
Water	Sprinkler Irrigation		5 ML/ha	\$ 60.00 /ML	\$	300.00	
Labour	Tractor Driving	1 person	7.0 hr/ha	\$ 25.00 /hr	\$	175.00	
	Irrigation Management	1 person	1.0 hr/ha	\$ 25.00 /hr	\$	25.00	
	Contract Harvesting		35 t/ha	\$ 32.00 /hr	\$	1,120.00	
Electricity/Gas	Irrigation Pumps		5.0 ML/ha	\$ 80.00 /ML	\$	400.00	
Packaging	No Packaging Required						
Freight/Transport	Transport Costs Met by Processor						
Other Costs	Levies		0.50%		\$	31.50	
	Bin Hire	20 days	100 bins/ha	\$0.40 /bin/day	\$	800.00	
B. Total Operating Costs					\$	4,347.51	
Gross Margin per ha (A-B)					\$	1,952.50	
Gross Margin /ML					\$	390.50	

Break-even Price	\$101.00 / tonne for	35 tonne / ha
Break-even Yield	19.6 tonne / ha @	\$180.00 / 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.



BEETROOT - Processing

2013

SENSITIVITY ANALYSIS

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

YIELD (tonne)	DELIVERED PRICE (\$/tonne)					
	80.00	130.00	180.00	230.00	280.00	330.00
15	-\$2,322	-\$1,576	-\$830	-\$83	\$663	\$1,409
25	-\$1,526	-\$282	\$961	\$2,205	\$3,449	\$4,693
35	-\$730	\$1,011	\$2,752	\$4,494	\$6,235	\$7,976
45	\$66	\$2,305	\$4,543	\$6,782	\$9,021	\$11,260
55	\$862	\$3,598	\$6,334	\$9,071	\$11,807	\$14,543

NOTES:

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

Area - Cowra and Hillston are the main growing areas in NSW.

Production - Major processing varieties are 'Detroit Dark Red', 'Detroit Supreme' and 'Pablo'.
 - Beetroot is planted from mid January to early March.
 - Seed is planted 5 cm to 8 cm apart with 2 to 3 rows/bed. Plant population of 250,000 to 400,000 plants/ha.
 - Adequate nitrogen is needed to get crops established, and Molybdenum and Boron are essential micronutrients that should be applied prior to planting.
 - Crop establishment can be difficult due to damping off diseases.
 - Beetroot is able to withstand relatively saline soil and irrigation water.
 - Water usage is 4 to 6 ML/ha and varies with soil, location and season.
 - Weed control is essential prior to canopy closure to prevent yield reduction.

Pests, Diseases & Disorders - Aphids and thrips are the major insect pest with damping off and cercospora leaf spot the most common diseases.

Harvesting - It takes approximately 14 to 18 weeks from direct seeding to harvest. Harvest occurs in April and May.
 - Harvesting is fully mechanised with top lifting root harvesters.
 - The beetroot is then transported to factories in bulk bins.

Packaging - Large roots (5 to 10 cm) are sliced and small roots (2 to 5 cm) are canned whole.
 - About 85 % of canned beetroot (by weight) are sliced.

Yields - This budget represents a high yielding crop for slicing beetroot.
 - The yield for a whole peeling beetroot crop would be considerably lower.

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: INT13/37816