

Enterprise
Unit

ha

GARLIC
Furrow Irrigation

2001
GROSS MARGIN BUDGET:
1 ha

Standard Budget	Your Budget
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INCOME:

2000 kg/ha	Extra Large	@	\$3.00 /kg	\$6,000.00
4000 kg/ha	Large	@	\$2.70 /kg	\$10,800.00
2500 kg/ha	Medium	@	\$2.20 /kg	\$5,500.00
1500 kg/ha	Small & Factory	@	\$0.60 /kg	\$900.00
10000 kg/ha			\$2.32 /kg*	

A. Total Income/ha
\$23,200.00
VARIABLE COSTS:
Seed

Large		1,250 kg/ha	\$3.00 /kg	\$3,750.00
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Tractor costs
Small equipment including labour, fuel, oil, etc

2 Cultivate		2.5 hr/ha	\$24.50 /hr	\$122.50
1 Lister		2.0 hr/ha	\$24.50 /hr	\$49.00
1 Drill Fertiliser		2.0 hr/ha	\$24.50 /hr	\$49.00
1 Bedform		2.0 hr/ha	\$24.50 /hr	\$49.00
1 Sidedress		2.0 hr/ha	\$24.50 /hr	\$49.00
1 Incorporate herbicide		2.0 hr/ha	\$24.50 /hr	\$49.00
7 Boomspray		0.5 hr/ha	\$24.50 /hr	\$85.75

Mechanical clove seperation

Contract		1,250 kg/ha	\$0.20 /kg	\$250.00
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Irrigation

Water		6 ML/ha	\$17.36 /ML	\$104.16
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Fertiliser

Starter fertiliser		500 kg/ha	\$0.45 /kg	\$223.50
Urea		350 kg/ha	\$0.38 /kg	\$131.25

Pest control

2 Fungicide		2.5 kg/ha	\$7.45 /kg	\$37.25
2 Insecticide		0.4 L/ha	\$34.00 /L	\$27.20
1 Insecticide		2.0 L/ha	\$14.90 /L	\$29.80

Weed Control

1 Herbicide		2 L/ha	\$11.25 /L	\$22.50
1 Pre-emergent		2 L/ha	\$9.45 /L	\$14.18
1 Post emergent		1 L/ha	\$63.70 /L	\$63.70
1 Post emergent		2 L/ha	\$33.80 /L	\$67.60
Chipping		40 hr/ha	\$14.50 /hr	\$580.00

Harvesting (12.5 paddock Tonnes to get 10 dry Tonnes)

Contract		12.5 t/ha	\$160.00 /t	\$2,000.00
1 Casual labour		16.0 hr/ha	\$14.50 /hr	\$232.00
14 Bin Hire (14 days)		27.0 bins/ha	\$0.16 /bin-day	\$60.48
Topping & grading		12.5 t/ha	\$120.00 /t	\$1,500.00
Transfer to storage		12.5 t/ha	\$60.00 /t	\$750.00

Handling (Small & Factory)

handling & freight		1.5 t/ha	\$100.00 /t	\$150.00
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Handling (Extra Large, Large & Medium)

Tail, clean, & pack		8500 kg/ha	\$0.60 /kg	\$5,100.00
Cartons		850 ctns/ha	\$1.40 /ctn	\$1,190.00

Freight

Markets		850 units	\$0.60 /ctn	\$510.00
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Agents commission

12.00% \$2,784.00

B. Total Variable Costs
\$20,030.87

Break-even price	\$2.00 /kg
Break-even yield	8,634 kg/ha

Gross Margin per ha (A-B)
\$3,169.14
Gross Margin per ML
\$528.19

* weighted average price used

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 Agriculture 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 (kg)	DELIVERED PRICE (\$/kg)					
	1.72	2.02	2.32	2.62	2.92	3.22
8000	-\$3,748	-\$1,636	\$476	\$2,588	\$4,700	\$6,812
9000	-\$2,929	-\$553	\$1,823	\$4,199	\$6,575	\$8,951
10000	-\$2,111	\$529	\$3,169	\$5,809	\$8,449	\$11,089
11000	-\$1,292	\$1,612	\$4,516	\$7,420	\$10,324	\$13,228
12000	-\$474	\$2,694	\$5,862	\$9,030	\$12,198	\$15,366

TABLE 2- Effect of Yield and Price on Gross Margin /ML

YIELD (kg)	DELIVERED PRICE (\$/kg)					
	1.72	2.02	2.32	2.62	2.92	3.22
8000	-\$625	-\$273	\$79	\$431	\$783	\$1,135
9000	-\$488	-\$92	\$304	\$700	\$1,096	\$1,492
10000	-\$352	\$88	\$528	\$968	\$1,408	\$1,848
11000	-\$215	\$269	\$753	\$1,237	\$1,721	\$2,205
12000	-\$79	\$449	\$977	\$1,505	\$2,033	\$2,561

The weighted average price shown in bold is based on the Flemington Market prices over a recent 12 month period.

NOTES:

- Area** - Riverina and NSW Tablelands are the main growing areas.
- Production** - The aim is to have large, heavy and attractive bulbs. Best planted in March to early April. Plant cloves in rows 300mm apart and 60mm between plants giving a plant population of about 50 to 60 plants per square meter. Topping, tail pruning and grading after harvest can be done by machine or hand. In this budget hand labour is used. The cost of hand operations is substantial, but initial or fixed costs for machinery ownership is high. Cleaning, grading and packing can also be done by machine but is by hand in this budget. Certain varieties are more adaptable to the grower-packer as they are easier to clean. Better quality propagating cloves are large and heavy. When cloves are separated from the bulbs it is recommended that smaller ones be discarded and only larger cloves used.
- Pests** - Thrips are the main insect pest with downy mildew the most common disease.
- Harvesting** - The crop is ready for harvest when some of the tops have fallen over and are partly dry. Hand harvest occurs in November and December. Bulbs are then topped, tailed and cured.
- Yields** - Crops range from 6 to 10 tonnes per hectare. Farmers need to achieve the top yields if Australia is to be internationally competitive.
- Packaging** - A carton contains 10 kg of garlic. The classification of sizes varies between growers. In this budget Extra Large is greater than 90mm, Large is > 75mm, Medium is > 55mm and Small is less than 55mm. Usually small and inferior quality garlic is graded out and sold for factory grade without further processing.
- Economic note** - **This budget is ONLY A GUIDE** and should be altered for movements in crop and input prices, changes in seasonal conditions and the farm characteristics.
 - This budget does not include overhead costs or GST.