



RICE - MEDIUM GRAIN (aerial sown using bore water)

Farm Enterprise Budget Series - Murrumbidgee Valley

Summer 2009/2010

1. GROSS MARGIN BUDGET:

INCOME:

9.00 t/ha @ \$550.00 /t (on farm)

Standard Budget \$/ha	Your Budget \$/ha
\$4,950	

A. TOTAL INCOME \$/ha:

\$4,950	
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VARIABLE COSTS:

See following page for detail

Cultivation.....	\$19	
Sowing.....	\$107	
Fertiliser.....	\$296	
Herbicide.....	\$324	
Insecticide.....	\$4	
Irrigation.....	\$884	
Aerial image.....	\$4	
Levies & Insurance.....	\$82	
Harvest.....	\$239	
Cartage	\$104	
B. TOTAL VARIABLE COSTS \$/ha:	\$2,062	

C. GROSS MARGIN (A-B) \$/ha:

\$2,888	
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D. GROSS MARGIN \$/ML:

\$181	
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SENSITIVITY TABLES

2. EFFECT OF YIELD AND PRICE ON GROSS MARGIN PER HECTARE:

YIELD t/ha	On Farm Price				
	\$550 /t	\$550 /t	\$550 /t	\$550 /t	\$550 /t
6.00	\$1,375	\$1,375	\$1,375	\$1,375	\$1,375
7.50	\$2,132	\$2,132	\$2,132	\$2,132	\$2,132
9.00	\$2,888	\$2,888	\$2,888	\$2,888	\$2,888
10.50	\$3,645	\$3,645	\$3,645	\$3,645	\$3,645
12.00	\$4,402	\$4,402	\$4,402	\$4,402	\$4,402

3. EFFECT OF YIELD AND PRICE ON GROSS MARGIN PER MEGALITRE:

YIELD t/ha	On Farm Price				
	\$550 /t	\$550 /t	\$550 /t	\$550 /t	\$550 /t
6.00	\$86	\$86	\$86	\$86	\$86
7.50	\$133	\$133	\$133	\$133	\$133
9.00	\$181	\$181	\$181	\$181	\$181
10.50	\$228	\$228	\$228	\$228	\$228
12.00	\$275	\$275	\$275	\$275	\$275

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CALENDAR OF OPERATIONS:		Machinery			Inputs			Total
Operation	Month	hrs/ha	Cost \$/hour	% of area	Total \$/ha	Rate/ha	Cost	Total \$/ha
Chisel plough	Aug	0.22	48.80		\$10.89			\$10.89
Broadcast phosphorus fertiliser <i>eg: broadcast Superfect®</i>	Sept	0.10	16.61		\$1.58	125kg/ha	\$371.00/t	\$46.38
Apply nitrogen fertiliser <i>eg: drill urea</i>	Sep/Oct	0.28	46.71		\$13.08	250kg/ha	\$551.00/t	\$137.75
Reform banks	Sep/Oct	1.18	18.06	4%	\$0.85			\$0.85
Rolling	Sep/Oct	0.20	38.55		\$7.56			\$7.56
Grass weed control <i>eg: aerial spray molinate</i>	Oct	contract			\$25.00	1.50 L/ha	\$6.31/L	\$9.47
Aquatic weed control <i>eg: aerial spray benzofenap (Taipan®)</i>	Oct	with above				2.00 L/ha	\$54.59/L	\$109.18
Bloodworm control <i>eg: aerial spray chlorpyrifos</i>		with above				0.15 L/ha	\$20.91/L	\$3.14
Aerial sow	Oct	contract			\$36.00	150kg/ha	\$0.47/kg	\$70.50
Aquatic weed control <i>eg: aerial spray thiobencarb (Saturn®)</i>	Oct/Nov	contract			\$25.00	3.75kg/ha	\$21.35/kg	\$80.06
Bloodworm control <i>eg: aerial spray alpha cypermethrin (Dominex Duo®)</i>		with above				0.10 L/ha	\$12.80/L	\$1.28
Aquatic weed control <i>eg: aerial spray Basagran M60</i>	Nov/Dec	contract			\$27.00	2.50 L/ha	\$19.15/L	\$47.88
Aerial Image	Dec				\$3.85			\$3.85
Topdress Nitrogen fertiliser <i>eg: aerial topdress urea</i>	Jan	contract			\$28.00	125kg/ha	\$551.00/t	\$68.88
Harvest	Apr/May	contract				9.0 t/ha	\$25.00/t	\$225.00
Chaser bin		0.32	45.05		\$14.19			\$14.19
Irrigation*						16.0ML/ha	\$55.25/ML	\$883.95
Cartage						9.0 t/ha	\$11.50/t	\$103.50
Research levy (farm gate value)						9.0 t/ha	\$0.00	\$0.00
Crop insurance (estimated crop value)						\$4,950	1.65%	\$81.68

*Bore water price to be used (includes pumping cost).

AGRONOMIC NOTES	<p>See <i>RICECHECK Recommendations and Rice Crop Protection Guide 2009</i></p> <ul style="list-style-type: none"> - Rice is sensitive to saline water, growers are advised to see the Primefact "Rice production using groundwater" available from the DII NSW Website. - The Ricecheck Recommendations and Rice crop protection guide are also recommended.
Varieties	<ul style="list-style-type: none"> - Rice varieties differ in their salt sensitivity, growers with lower quality ground water are recommended to grow Amaroo, if possible. Other varieties to consider include, Quest and Opus - Avoid Illabong, Reiziq and all long grain varieties on ground water. - Sow on time as per Ricecheck recommendations and see Primefact "Choosing a rice variety for 2007" on the web
Price	<ul style="list-style-type: none"> - The prices of medium and long grain for 2009-10 are Sunrice premium pool contract prices for 65,000 tonnes. Tonnes grown above the the premium pool will probably be received at a lower price. This budget is based on Amaroo. Costs may vary for other varieties.
Rotation	<ul style="list-style-type: none"> - This is the first crop following a winter cereal or previous rice crop. - If this crop follows several years of ground water usage, soil structural issues may lead to wet boggy harvests
Weed Control	<ul style="list-style-type: none"> - Herbicides used in the budget are based on the Taipan[®] with standard Saturn[®] & Molinate Primer program (program 3). Seek advice for using alternative programs and see the 'Rice Crop Protection Guide 2009". Sound weed management for aquatic weeds delays the build up of herbicide resistance. Management programs emphasise the importance of using 2 herbicides on each weed and/or rotating herbicides to avoid using the same herbicide in consecutive rice crops.
Insect Control	<ul style="list-style-type: none"> - Bloodworms are a major insect pest at establishment and should be controlled before or at sowing. Alpha cypermethrin (Dominex Duo[®]) and Fipronil (Cosmos[®]) seed dressing are alternatives to chlorpyrifos (See Rice Crop Protection Guide 2009). Other Pests: Ducks may need controlling, especially in the more western areas. Duck control is not included in this budget.
Pesticide Residues	<ul style="list-style-type: none"> - Drainage water containing pesticides must be retained on-farm for at least 28 days after application for the MIA and Murray Valley and 21 days for the CIA.
Fertiliser	<ul style="list-style-type: none"> - Split apply urea to minimise risk of cold damage. Conduct NIR tissue test at PI to verify urea topdress requirement. Total nitrogen rate depends on paddock history and seasonal conditions. Apply phosphorus where Colwell soil P is less than 20mg/kg.
Aerial Image	<ul style="list-style-type: none"> - An aerial image should be used at PI to help identify the factors influencing rice crop growth variability and crop yield. This image may then be used to target NIR sampling at PI.
Sowing costs	<ul style="list-style-type: none"> - Aerial sown rice has a lower labour requirement than other sowing alternatives but consequently incurs higher application costs.
Irrigation	<ul style="list-style-type: none"> - High yields on bore water require constant monitoring of water quality to ensure salt levels remain within recommended levels. Crop water usage is normally significantly higher with saline water than with surface (channel) water. Actual water usage will vary depending on the water quality, seasonal conditions, soil type and rice variety. - High yields require good water management, follow Ricecheck water management guidelines. - Deep water (20-25 cm) is particularly important during the cold sensitive microspore stage.
Yield	<ul style="list-style-type: none"> - Use of saline ground water commonly leads to a yield penalty of up to 1 t/ha - Yields of less than 8 t/ha are common on groundwater in western Murray Valley
Machinery	<ul style="list-style-type: none"> - Machinery costs include variable costs only for the tractor and implements. Two tractors: of 57 kW (77 HP) PTO and 66 kW (90 HP) engine; and of 141 kW (190 HP) PTO and 66 kW (90 HP) engine; and of 141 kW (190 HP) PTO and 148 kW (225 HP) engine are assumed.
More information	<ul style="list-style-type: none"> - See Production of Quality Rice in South Eastern Australia and also DII NSW Publications