



Results Day  
March 10 2020

Standing Crops Hand Out

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## Barley - grain production- establishment cost

Establishment Costs - Year 1			5/03/2020	Willalooka	Total Cost (per ha)
<b>Seed</b>	<b>Cost (\$/kg)</b>	<b>Sowing Rate (kg/ha)</b>			
Barley - Scope	\$0.40	60			\$24.00
Vetch	\$1.25	0			\$0.00
Seed coating - Systiva	\$216	0.06	800 ml/t	0	\$0.00
<b>Fertiliser - incl freight</b>	<b>Cost (\$/tonne)</b>	<b>Application Rate (kg/ha)</b>	<b>Application Rate (t/ha)</b>	<b>No. of Applications</b>	
DAP	\$645	80	0.08	1	\$51.60
Urea	\$520	0	0	1	\$0.00
Gypsum	\$38	0	0	1	\$0.00
<b>Herbicide/insecticide</b>	<b>Cost (\$/L or /kg)</b>	<b>Application Rate (L/ha)</b>		<b>No. of Applications</b>	
LVE Agritone	\$8.75	0.45		1	\$3.94
Roundup	\$6.92	1		1	\$6.92
Hasten	\$6.10	0.97		1	\$5.92
Trifluralin	\$6.00	1.5		1	\$9.00
Goal	\$9.77	0.075		1	\$0.73
Alpha-cypermethrin	\$8.00	0.05		1	\$0.40
On Duty	\$120.00	0.04		1	\$4.80
Ally	\$70.00	0.005		1	\$0.35
Fungicides - Opus	\$14.00	0.5		0	\$0.00
Snail bait	\$1.05	10		0	\$0.00
Trace elements - ZMC	\$6.00	2		2	\$24.00
Trace elements - 2	\$3.76	3		0	\$0.00
SOA	\$1.00	1.45		1	\$1.45
Dimethoate	\$8.00	0.1		2	\$1.60
<b>Contract Operations</b>	<b>Rate (\$/ha)</b>	<b>No. of Times Operation Conducted</b>			
Cultivation	\$35.00	0			\$0.00
Scarify	\$22.00	0			\$0.00
Seeding	\$32.33	1			\$32.33
Spraying	\$3.98	4			\$15.92
Spreading	\$10.00	0			\$0.00
<b>Harvesting</b>	<b>Cost (\$/ML)</b>	<b>Application Rate (ML/ha)</b>			
Crop insurance	\$7.11	1			\$7.11
Harvesting \$/ha	\$50.00	1			\$50.00
Freight	\$17.00	1			\$17.00
<b>TOTAL</b>					<b>\$257.06</b>

Input costs	Yield potential (t/ha)	Grain value: \$/t	GM/Ha
\$257.06	3.35	\$280.00	\$938.00
			<b>\$680.94</b>

# GRAZING barley- establishment cost

Pasture Establishment Costs (Year 1)			5/03/2020	Wilgra Park	Total Cost (per ha)
Seed	Cost (\$/kg)	Sowing Rate (kg/ha)			
Barley - Scope	\$0.40	60			\$24.00
Vetch	\$1.25	0			\$0.00
Seed coating - Systiva	\$216.00	0.06	800 ml/t		\$0.00
Fertiliser - incl freight	Cost (\$/tonne)	Application Rate (kg/ha)	Application Rate (t/ha)	No. of Applications	
DAP	\$645.00	80	0.08	1	\$51.60
Urea	\$520.00	0	0	1	\$0.00
Gypsum	\$38.00	0	0	1	\$0.00
Herbicide/insecticide	Cost (\$/L or /kg)	Application Rate (L/ha)		No. of Applications	
LVE Agritone	\$8.75	0.45		1	\$3.94
Roundup	\$6.92	1		1	\$6.92
Hasten	\$6.10	0.97		1	\$5.92
Trifluralin	\$6.00	1.5		1	\$9.00
Goal	\$9.77	0.075		1	\$0.73
Alpha-cypermethrin	\$8.00	0.05		1	\$0.40
On Duty	\$120.00	0.04		1	\$4.80
Ally	\$70.00	0.005		1	\$0.35
Fungicides - Opus	\$14.00	0.5		0	\$0.00
Snail bait	\$1.05	10		0	\$0.00
Trace elements - ZMC	\$6.00	2		2	\$24.00
Trace elements - 2	\$3.76	3		0	\$0.00
SOA	\$1.00	1.45		1	\$1.45
Dimethoate	\$8.00	0.1		2	\$1.60
Contract Operations	Rate (\$/ha)	No. of Times Operation Conducted			
Cultivation	\$35.00	0			\$0.00
Scarify	\$22.00	0			\$0.00
Seeding	\$32.33	1			\$32.33
Spraying	\$3.98	3			\$11.94
Spreading	\$10.00	0			\$0.00
Harvesting	Cost (\$/ML)	Application Rate (ML/ha)			
Crop insurance	\$7.11	0			\$0.00
Harvesting \$/ha	\$50.00	0			\$0.00
Freight	\$17.00	0			\$0.00
<b>TOTAL</b>					<b>\$178.97</b>

Annual Pasture Maintenance Costs (Year 2 onwards)					Total Cost (per ha)
Fertiliser incl freight	Cost (\$/tonne)	Application Rate (kg/ha)	Application Rate (t/ha)	No. of applications	
DAP	\$645.00	80	0.08	0	\$0.00
Urea	\$520.00	0	0	0	\$0.00
					\$0.00
Herbicide/insecticide	Cost (\$/L)	Application Rate (L/ha)		No. of Applications	
					\$0.00
					\$0.00
					\$0.00
Contract Operations	Rate (\$/ha)	No. of Times Operation Conducted			
Spreading	\$10.00	0			\$0.00
					\$0.00
					\$0.00
Irrigation Costs	Cost (\$/ML)	Application Rate (ML/ha)			
					\$0.00
					\$0.00
<b>TOTAL annual maintenance costs</b>					<b>\$0.00</b>

<b>TOTAL pasture costs (establishment + maintenance)</b>	<b>\$178.97</b>
<b>TOTAL pasture cost per annum</b>	<b>\$178.97</b>

**Pasture Life Expectancy** 1 years

**Dry Matter Production**

Year 1	7000 kg DM/ha	Estimated production	Av hay yield - 7.5t/ha
Year 2 +	kg DM/ha		Av grain yield 1.86t/ha
TOTAL pasture DM prodn.	6000 kg DM/ha		
Residual	1000 kg DM/ha		
Cost	\$ 0.030 kg DM		
	\$ 29.83 tonne DM		

Willalooka	Prime lambs	5/03/20
<u>Standing barley crop</u>		
33kg -> 44 kg LW	As fed (Kgs/head/day)	% of Ration
<b><u>Grain</u></b>		
Oats		
Lupins		
Barley	0.60	31.0%
Peas		
Lentils		
<b><u>Roughage</u></b>		
Barley hay		
Medic/vetch hay		
Lucerne hay	0.50	25.8%
Dry standing pasture		
Standing wheat crop		
Standing barley crop	0.80	41.3%
<b><u>Additives</u></b>		
PN Dry feed energiser - Compass Feeds	0.02	1.0%
Lime and salt 80/20	0.02	0.8%
<b>TOTAL: kgs per head per day</b>	<b>1.94</b>	<b>100%</b>
<b>TOTAL Cost: per head per day</b>	<b>\$0.18</b>	
<b>TOTAL Cost: per tonne</b>	<b>\$93.22</b>	
	<b><u>Approx. analysis</u></b>	<b><u>Target 40kg</u></b>
Intake - As fed (kg)	1.9	
Intake - Dry matter (kg)	1.7	<b>1.5</b>
Crude Protein (gms per day)	205	<b>180</b>
Energy (ME, MJ/day )	18.7	<b>15.0</b>
NDF(minimum) %	40%	<b>32%</b>
Calcium (gms/day)	16.01	<b>7.60</b>
Phosphorus (gms/ day)	5.17	<b>3.80</b>
Calcium:Phosphorus Ratio	3.1 :1	<b>2.00</b>

**Willalooka**

**GM lamb budget**

**29-April-2020**

Ration consisting of....	Lamb type...		5/03/2020		Costs per head	Costs per head excluding purchase & transport
<b>Purchase price</b>	Average live weight (kgs):	<b>33</b>	@	<b>\$8.00</b>	<b>\$108.24</b>	
Transport to property						
Drench: Cydectin					<b>\$0.31</b>	\$0.31
Vaccination + B12					<b>\$0.36</b>	\$0.36
Crutching & shearing					<b>\$0.00</b>	\$0.00
<b>Enter total days fed, cost per tonne</b>	Total days:	<b>63</b>	\$ / t	<b>\$93.22</b>		
<b>&amp; kgs fed per day</b>	kgs per day:	<b>1.70</b>	\$ / head	<b>\$9.97</b>	<b>\$9.97</b>	<b>\$9.97</b>
Fuel, oil, repairs					<b>\$0.30</b>	\$0.30
Water					<b>\$0.20</b>	\$0.20
Transport to market					<b>\$2.50</b>	\$2.50
Commission on sale (%)				<b>5.60%</b>	<b>\$2.00</b>	\$2.00
Levies				2.10%	<b>\$3.39</b>	\$3.39
Labour & administration						\$0.00
Lease						\$0.00
<b>Total costs per head</b>					<b>\$127.28</b>	<b>\$19.04</b>
Feed cost % : costs per head excl purchase & transport:						<b>52.38%</b>
<b>Returns per head</b>	Average live weight (kgs):	<b>44.0</b>				
Dressing percentage		<b>51%</b>				
	Av. carcase weight (kgs):	22.5	@	<b>\$7.18</b>	\$161.66	
Skin price		<b>\$0.00</b>			\$0.00	
Interest on lambs	6%	<b>0.0%</b>		0.1726027	\$0.00	
Wool clip	Wool price (\$/kg greasy)	<b>\$8.00</b>	Wool clip/hd (kg)	0	\$0.00	
<b>Total returns per head</b>					<b>\$161.66</b>	
<b>Profit / loss per head</b>					<b>\$34.38</b>	

<b>How long to feed?</b>
Enter expected daily rate of gain: <b>174.6</b> grams per day
Enter target weight: <b>44</b> kgs
<b>Number of days to feed =</b> <b>63 days</b>

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# Sensitivity tables

29-April-2020

## 1. Effect of lamb purchase price and carcass price on gross margin per lamb

		Lamb purchase price or starting value (\$/hd)					
		\$100.00	\$110.00	\$120.00	\$130.00	\$140.00	\$150.00
Carcass price (\$/kg cwt)	\$7.00	\$38.55	\$28.55	\$18.55	\$8.55	-\$1.45	-\$11.45
	\$7.50	\$49.57	\$39.57	\$29.57	\$19.57	\$9.57	-\$0.43
	\$8.00	\$60.58	\$50.58	\$40.58	\$30.58	\$20.58	\$10.58
	\$8.50	\$71.59	\$61.59	\$51.59	\$41.59	\$31.59	\$21.59
	\$9.00	\$82.61	\$72.61	\$62.61	\$52.61	\$42.61	\$32.61

## 2. Effect of lamb growth rate on gross margin per lamb

Lamb growth rate (g/hd/day)	50	\$9.54
	75	\$21.09
	150	\$32.80
	175	\$34.38
	200	\$35.65

## 3. Effect of skin price on gross margin per lamb

Skin price (\$/hd)	\$0.00	\$34.38
	\$3.00	\$37.38
	\$5.00	\$39.38
	\$7.00	\$41.38
	\$10.00	\$44.38

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## Paddock utilisation and gross margin per ha

### Willalooka

<b>No of lambs</b>	<b>1000 lambs</b>	<b>Total feed demand (t DM)</b>	<b>107 t</b>
= Stocking rate	30 lambs/ha	DMI (kg/d)	1.70 kg/d
		Weaning weight (kg)	33 kgs
		Finished weight (kg)	44 kgs
		Growth rate (g/d)	174.6 g/d
		Days on feed	63 days
<b>Paddock size</b>	<b>33.0 ha</b>	<b>Total tonnes DM available</b>	<b>165 t</b>
		Estimated t DM available/ha	5 t
<b>Lambs per ha - preferred stocking rate (soil type)</b>	<b>25 lambs/ha</b>		
<b>How many lambs can I graze at preferred stocking rate (ha*sr) ?</b>	<b>825 lambs</b>	<b>Total feed demand (t DM)</b>	<b>88 t</b>
<b>Gross margin per hectare</b>		<b>Grazing barley crop</b>	
Weaning value / COP	\$108.24	Standing crop \$/ha	\$178.97
Total costs	\$127.28	COP per t DM	\$29.83
Carcase value /kg	\$7.18		
Skin value	\$0.00		
GM/lamb	\$34.38		
<b>GM/ha - 30 lambs per ha (proposed mob)</b>	<b>\$1,031.54</b>		
<b>GM/ha - 25 lambs per ha (potential stocking rate)</b>	<b>\$859.62</b>		