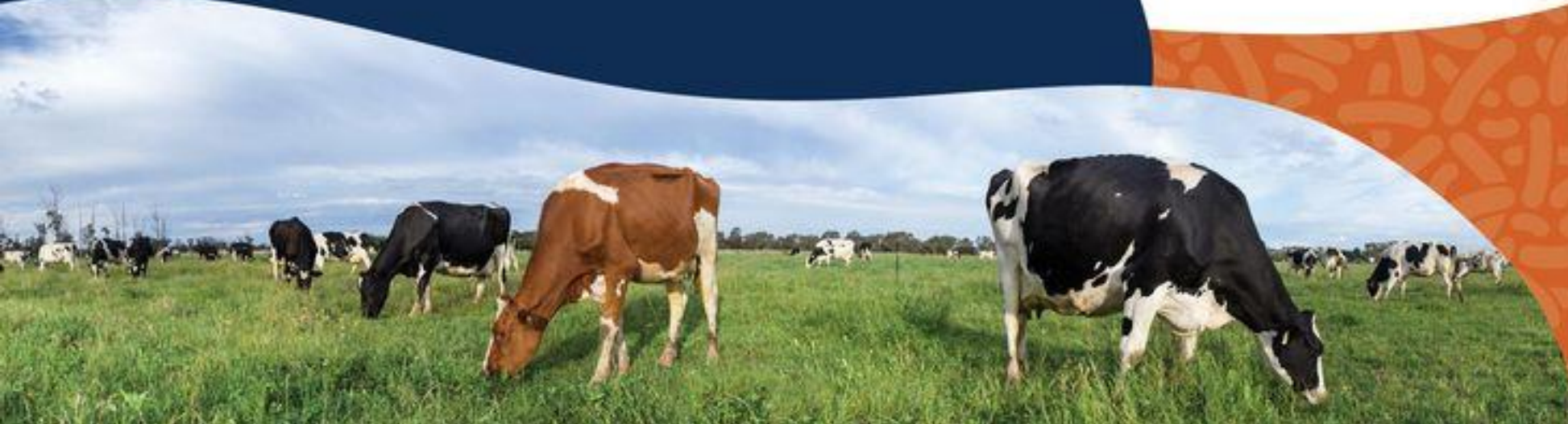


**AUSTRALIAN
PROBIOTIC SOLUTIONS**



Feeding lambs this summer? Does it pay?

Tim Huggins

Outline

- Requirements and nutrition basics
- Assumptions and prices
- Ration balancing program
- Feeding options – 8 to start you off
- Induction
- APS product range
- Summary



Short answer...

- Yes, but you may have to do something different to previous years
- Before we go on, have a think about how much margin you 'normally' make per lamb after all of the feed costs have been covered.
- Remember, the pricing for the last year or two has been extreme so think back to the 5-10 years prior to that. Think about the year-in, year-out number...

Requirements and nutritional targets

- Intake is determined by neutral detergent fibre (NDF) as a % liveweight
- Minimum 30% NDF
- Maximum 30% starch (minimum 15% for best results)
- Once they are full (on NDF) both energy and protein can limit growth
- Lambs taken from 38 kg to 60 kg liveweight
- 350-400 g daily liveweight gain expected
- Lambs are kept full at all times



Assumptions and prices

- Induction completed correctly (more about that later)
- Store lamb price \$1.80/kg liveweight (was \$2.80 Nov23)
- Fat lamb price \$2.69/kg liveweight (was \$3.75 Nov23)
- Barley \$350/t
- Faba beans \$450/t vs lupins \$480/t
- Cereal hay \$250/t
- Silage \$80/t as fed (65% DM) = \$120/t dry matter (making cost)
- Straw \$150/t as fed
- Lamb pellets \$587/t including Rumicell at 2.5 g/lamb/day in 1.5 kg
- Allow for wastage of up to 20%, particularly if trail-feeding



General tips and questions

- If buying store lambs, spend a bit more and buy lambs weighing up to 38 kg rather than down around 30 kg. The heavier lambs will finish in 60 days instead of 75
- What do you do with un-finished homebred lambs if you don't feed them over the summer? If you feed for maintenance, how much will that cost and when will the lamb prices rebound? Also, remember there will be more lambs in 2024 to feed as well
- There is an opportunity cost associated with homegrown feed. I.e. If you don't feed it, someone else might buy it at the current market rate

Induction

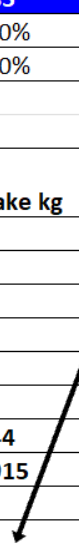
- Lambs should be vaccinated and drenched prior to supplementary feeding
- Clean water and shelter should be available
- Trail feed for 10-14 days prior to entry into feedlot, starting at 100 g/head/day and increasing by 50 g until reaching target intake
- Fill them up on hay prior to entry
- Need good access to feeders and forage for each lamb
- If unsure get silage/hay and water tested prior to starting feeding



Ration balancing program

Customer:		FAT LAMB									
Weight of sheep kg		38.00									
Target live weight kg		60.00									
Initial Dry Matter intake (kg/day)		1.85									
Protein requirement %		13.00%									
Fibre requirement %NDF		40.00%									
Current Diet											
Ingredients	Feed intake kg (As Fed)	DM Intake kg	Dry Matter %	Mj ME/kg DM	Total MJ	Protein	Protein Grams	%NDF	Starch	\$ / Tonne As Fed	\$ DAY FEED COST
SUMMER CROP	0	0	20%	12.0	0.0	22%	0	25%	2.0%	35.00	\$0.00
BARLEY	0	0	89%	12.5	0.0	13%	0	18%	55.0%	330.00	\$0.00
PEA POLLARD	0	0	91%	11.0	0.0	16%	0	41%	21.6%	300.00	\$0.00
FABA BEANS	0	0	90%	12.0	0.0	25%	0	24%	44.0%	400.00	\$0.00
LUPINS	0	0	90%	12.5	0.0	33%	0	24%	0.0%	465.00	\$0.00
CEREAL HAY	0	0	90%	10.0	0.0	14%	0	50%	0.0%	220.00	\$0.00
LAMB PELLETS INC RUMICELL \$22/t	1.6	1.44	90%	12.0	17.3	19%	274	23%	30.0%	587.00	\$0.94
BARLEY STRAW	0.45	0.3915	87%	7.0	2.7	5%	20	70%	2.0%	150.00	\$0.07
DRY LICK	0	0	99%	0.0	0.0	0%	0	0%	0.0%	2,500.00	\$0.00
SILAGE	0	0	30%	10.0	0.0	12%	0	55%	5.0%	40.00	\$0.00
Total	2.05	1.83	89.3%	10.9	20.0	16.01%	293	33.05%	24.0%	491.07	\$1.01

The Predicted DMI must equal the actual DMI to provide an accurate Live Weight gain prediction.



Ration balancing program cont...



ME conc of ration M/D (Mj/kg DM)				10.9
Dry Matter intake DMI				1.8
Total ME Mj/Day supplied by Ration				20.0
Grams of Protein in ration	6.5			293.2
Equivalent protein to ME (inc 15% error margin)*				22.6
Relative available ME*				20.0
Maintenance				6.9
Live Weight Gain per day (kg/day)				0.387
Days to reach target weight excluding induction				56.84
Cost of feed per head per day				\$1.01
Cost of total feed to achieve target				\$57.22
Feed Conversion Ratio (kg's of feed per 1 kg body weight gain)				4.73
Cost/kg/live weight gained				\$2.60
Cost/kg carcass weight				\$4.91
Purchase price / KILO LIVE WEIGHT			\$	1.80
Purchase price			\$	68.40
Sell Price per KG live weight			\$	2.69
Sell Price AS A FAT LAMB			\$	161.40
Total margin over feed costs			\$	35.78

Pasture



Ingredients	Feed intake kg (As Fed)	DM Intake kg	Dry Matter %	Mj ME/kg DM	Total MJ	Protein	Protein Grams	%NDF	Starch	\$/ Tonne As Fed	\$ DAY FEED COST
PADDOCK FEED	4.5	1.35	30%	10.0	13.5	16%	216	45%	5.0%	0.00	\$0.00
BARLEY	0	0	89%	12.5	0.0	13%	0	18%	55.0%	326.00	\$0.00
PEA POLLARD	0	0	91%	11.0	0.0	16%	0	41%	21.6%	334.00	\$0.00
FABA BEANS	0	0	90%	12.0	0.0	27%	0	24%	44.0%	425.00	\$0.00
LUPINS	0	0	90%	12.5	0.0	33%	0	24%	0.0%	465.00	\$0.00
OATEN HAY	0	0	90%	8.3	0.0	6%	0	60%	2.0%	280.00	\$0.00
HGS LAMB PELLETS	0	0	90%	12.0	0.0	16%	0	23%	30.0%	572.00	\$0.00
BARLEY STRAW	0	0	87%	7.0	0.0	5%	0	70%	2.0%	150.00	\$0.00
APS DRY LICK	0.02	0.0198	99%	0.0	0.0	0%	0	0%	0.0%	2,500.00	\$0.05
SILAGE	0	0	69%	9.0	0.0	14%	0	55%	5.0%	150.00	\$0.00
Total	4.52	1.37	30.3%	9.9	13.5	15.77%	216	44.35%	4.9%	11.06	\$0.05

ME conc of ration M/D (Mj/kg DM)	9.9
Dry Matter intake DMI	1.4
Total ME Mj/Day supplied by Ration	13.5
Grams of Protein in ration	216.0
Equivalent protein to ME (inc 15% error margin)*	16.6
Relative available ME*	13.5
Maintenance	6.9
Live Weight Gain per day (kg/day)	0.195
Days to reach target weight excluding induction	112.65
Cost of feed per head per day	\$0.05
Cost of total feed to achieve target	\$5.63
Feed Conversion Ratio (kg's of feed per 1 kg body weight gain)	7.01
Cost/kg/live weight gained	\$0.26
Cost/kg carcass weight	\$0.48
Purchase price / KILO LIVE WEIGHT	\$ 1.80
Purchase price	\$ 68.40
Sell Price per KG live weight	\$ 2.69
Sell Price AS A FAT LAMB	\$ 161.40
Total margin over feed costs	\$ 87.37

NDF should be over 30% to prevent acidosis. If NDF is under 30% weight gain is less certain.

For best results starch of total diet should be between 15% and 30%.

Pasture + barley

Ingredients	Feed intake kg (As Fed)	DM Intake kg	Dry Matter %	Mj ME/kg DM	Total MJ	Protein	Protein Grams	%NDF	Starch	\$ / Tonne As Fed	\$ DAY FEED COST
PADDOCK FEED	3.7	1.11	30%	10.0	11.1	16%	178	45%	5.0%	0.00	\$0.00
BARLEY	0.7	0.623	89%	12.5	7.8	13%	81	18%	55.0%	350.00	\$0.25
PEA POLLARD	0	0	91%	11.0	0.0	16%	0	41%	21.6%	334.00	\$0.00
FABA BEANS	0	0	90%	12.0	0.0	27%	0	24%	44.0%	425.00	\$0.00
LUPINS	0	0	90%	12.5	0.0	33%	0	24%	0.0%	465.00	\$0.00
OATEN HAY	0	0	90%	8.3	0.0	6%	0	60%	2.0%	280.00	\$0.00
HGS LAMB PELLETS	0	0	90%	12.0	0.0	16%	0	23%	30.0%	572.00	\$0.00
BARLEY STRAW	0	0	87%	7.0	0.0	5%	0	70%	2.0%	150.00	\$0.00
APS DRY LICK	0.02	0.0198	99%	0.0	0.0	0%	0	0%	0.0%	2,500.00	\$0.05
SILAGE	0	0	69%	9.0	0.0	14%	0	55%	5.0%	150.00	\$0.00
Total	4.42	1.75	39.7%	10.8	18.9	14.75%	259	34.90%	22.7%	66.74	\$0.30

ME conc of ration M/D (Mj/kg DM)	10.8
Dry Matter intake DMI	1.8
Total ME Mj/Day supplied by Ration	18.9
Grams of Protein in ration	258.6
Equivalent protein to ME (inc 15% error margin)*	19.9
Relative available ME*	18.9
Maintenance	6.9
Live Weight Gain per day (kg/day)	0.354
Days to reach target weight excluding induction	62.19
Cost of feed per head per day	\$0.30
Cost of total feed to achieve target	\$18.35
Feed Conversion Ratio (kg's of feed per 1 kg body weight gain)	4.95
Cost/kg/live weight gained	\$0.83
Cost/kg carcass weight	\$1.57
Purchase price / KILO LIVE WEIGHT	\$ 1.80
Purchase price	\$ 68.40
Sell Price per KG live weight	\$ 2.67
Sell Price AS A FAT LAMB	\$ 160.20
Total margin over feed costs	\$ 73.45

NDF should be over 30% to prevent acidosis. If NDF is under 30% weight gain is less certain.

For best results starch of total diet should be between 15% and 30%.

Barley, faba beans, hay

Ingredients	Feed intake kg (As Fed)	DM Intake kg	Dry Matter %	Mj ME/kg DM	Total MJ	Protein	Protein Grams	%NDF	Starch	\$ / Tonne As Fed	\$ DAY FEED COST
PADDOCK FEED	0	0	30%	9.5	0.0	12%	0	50%	5.0%	0.00	\$0.00
BARLEY	0.4	0.356	89%	12.5	4.5	13%	46	18%	55.0%	350.00	\$0.14
PEA POLLARD	0	0	91%	11.0	0.0	16%	0	41%	21.6%	334.00	\$0.00
FABA BEANS	0.4	0.36	90%	12.0	4.3	27%	97	24%	44.0%	450.00	\$0.18
LUPINS	0	0	90%	12.5	0.0	33%	0	24%	0.0%	500.00	\$0.00
OATEN HAY	0.87	0.783	90%	9.5	7.4	9%	70	58%	2.0%	250.00	\$0.22
HGS LAMB PELLETS	0	0	90%	12.0	0.0	16%	0	23%	30.0%	572.00	\$0.00
BARLEY STRAW	0	0	87%	7.0	0.0	5%	0	70%	2.0%	150.00	\$0.00
APS DRY LICK	0.02	0.0198	99%	0.0	0.0	0%	0	0%	0.0%	2,500.00	\$0.05
SILAGE	0	0	69%	9.0	0.0	14%	0	55%	5.0%	150.00	\$0.00
Total	1.69	1.52	89.9%	10.7	16.2	14.09%	214	39.81%	24.4%	347.63	\$0.59

ME conc of ration M/D (Mj/kg DM)	10.7
Dry Matter intake DMI	1.5
Total ME Mj/Day supplied by Ration	16.2
Grams of Protein in ration	214.0
Equivalent protein to ME (inc 15% error margin)*	16.5
Relative available ME*	16.2
Maintenance	6.9
Live Weight Gain per day (kg/day)	0.275
Days to reach target weight excluding induction	80.01
Cost of feed per head per day	\$0.59
Cost of total feed to achieve target	\$47.01
Feed Conversion Ratio (kg's of feed per 1 kg body weight gain)	5.52
Cost/kg/live weight gained	\$2.14
Cost/kg carcass weight	\$4.03
Purchase price / KILO LIVE WEIGHT	\$ 1.80
Purchase price	\$ 68.40
Sell Price per KG live weight	\$ 2.69
Sell Price AS A FAT LAMB	\$ 161.40
Total margin over feed costs	\$ 45.99

NDF should be over 30% to prevent acidosis. If NDF is under 30% weight gain is less certain.

For best results starch of total diet should be between 15% and 30%.

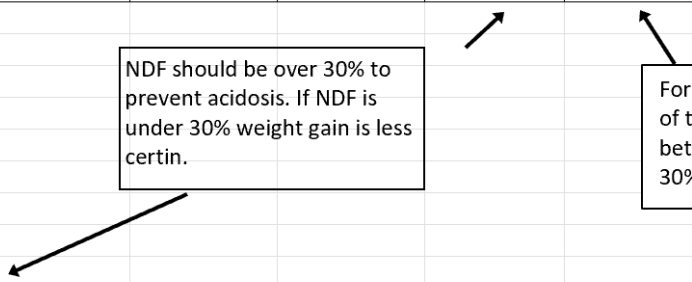
Pea pollard and straw

Ingredients	Feed intake kg (As Fed)	DM Intake kg	Dry Matter %	Mj ME/kg DM	Total MJ	Protein	Protein Grams	%NDF	Starch	\$ / Tonne As Fed	\$ DAY FEED COST
PADDOCK FEED	0	0	30%	9.5	0.0	12%	0	50%	5.0%	0.00	\$0.00
BARLEY	0	0	89%	12.5	0.0	13%	0	18%	55.0%	326.00	\$0.00
PEA POLLARD	1.5	1.3575	91%	11.0	14.9	16%	223	41%	21.6%	315.00	\$0.47
FABA BEANS	0	0	90%	12.0	0.0	27%	0	24%	44.0%	425.00	\$0.00
LUPINS	0	0	90%	12.5	0.0	33%	0	24%	0.0%	465.00	\$0.00
OATEN HAY	0	0	90%	8.3	0.0	6%	0	60%	2.0%	280.00	\$0.00
HGS LAMB PELLETS	0	0	90%	12.0	0.0	16%	0	23%	30.0%	572.00	\$0.00
BARLEY STRAW	0.1	0.087	87%	7.0	0.6	5%	4	70%	2.0%	150.00	\$0.02
APS DRY LICK	0.02	0.0198	99%	0.0	0.0	0%	0	0%	0.0%	2,500.00	\$0.05
SILAGE	0	0	69%	9.0	0.0	14%	0	55%	5.0%	150.00	\$0.00
Total	1.62	1.46	90.4%	10.6	15.5	15.50%	227	41.98%	20.1%	331.79	\$0.54

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ME conc of ration M/D (Mj/kg DM)	10.6
Dry Matter intake DMI	1.5
Total ME Mj/Day supplied by Ration	15.5
Grams of Protein in ration	227.0
Equivalent protein to ME (inc 15% error margin)*	17.5
Relative available ME*	15.5
Maintenance	6.9
Live Weight Gain per day (kg/day)	0.255
Days to reach target weight excluding induction	86.16
Cost of feed per head per day	\$0.54
Cost of total feed to achieve target	\$46.31
Feed Conversion Ratio (kg's of feed per 1 kg body weight gain)	5.73
Cost/kg/live weight gained	\$2.11
Cost/kg carcass weight	\$3.97
Purchase price / KILO LIVE WEIGHT	\$ 1.80
Purchase price	\$ 68.40
Sell Price per KG live weight	\$ 2.69
Sell Price AS A FAT LAMB	\$ 161.40
Total margin over feed costs	\$ 46.69

NDF should be over 30% to prevent acidosis. If NDF is under 30% weight gain is less certain.

For best results starch of total diet should be between 15% and 30%.



Pea pollard and barley

Ingredients	Feed intake kg (As Fed)	DM Intake kg	Dry Matter %	Mj ME/kg DM	Total MJ	Protein	Protein Grams	%NDF	Starch	\$ / Tonne As Fed	\$ DAY FEED COST
PADDOCK FEED	0	0	30%	9.5	0.0	12%	0	50%	5.0%	0.00	\$0.00
BARLEY	0.6	0.534	89%	12.5	6.7	13%	69	18%	55.0%	350.00	\$0.21
PEA POLLARD	0.8	0.724	91%	11.0	8.0	16%	119	41%	21.6%	315.00	\$0.25
FABA BEANS	0	0	90%	12.0	0.0	27%	0	24%	44.0%	425.00	\$0.00
LUPINS	0	0	90%	12.5	0.0	33%	0	24%	0.0%	465.00	\$0.00
OATEN HAY	0	0	90%	8.3	0.0	6%	0	60%	2.0%	280.00	\$0.00
HGS LAMB PELLETS	0	0	90%	12.0	0.0	16%	0	23%	30.0%	572.00	\$0.00
BARLEY STRAW	0.35	0.3045	87%	7.0	2.1	5%	15	70%	2.0%	150.00	\$0.05
APS DRY LICK	0.02	0.0198	99%	0.0	0.0	0%	0	0%	0.0%	2,500.00	\$0.05
SILAGE	0	0	69%	9.0	0.0	14%	0	55%	5.0%	150.00	\$0.00
Total	1.77	1.58	89.4%	10.6	16.8	12.85%	203	38.21%	28.8%	318.93	\$0.56

ME conc of ration M/D (Mj/kg DM)	10.6
Dry Matter intake DMI	1.6
Total ME Mj/Day supplied by Ration	16.8
Grams of Protein in ration	203.4
Equivalent protein to ME (inc 15% error margin)*	15.6
Relative available ME*	15.6
Maintenance	6.9
Live Weight Gain per day (kg/day)	0.258
Days to reach target weight excluding induction	85.15
Cost of feed per head per day	\$0.56
Cost of total feed to achieve target	\$48.07
Feed Conversion Ratio (kg's of feed per 1 kg body weight gain)	6.12
Cost/kg/live weight gained	\$2.18
Cost/kg carcass weight	\$4.12
Purchase price / KILO LIVE WEIGHT	\$ 1.80
Purchase price	\$ 68.40
Sell Price per KG live weight	\$ 2.69
Sell Price AS A FAT LAMB	\$ 161.40
Total margin over feed costs	\$ 44.93

NDF should be over 30% to prevent acidosis. If NDF is under 30% weight gain is less certain.

For best results starch of total diet should be between 15% and 30%.

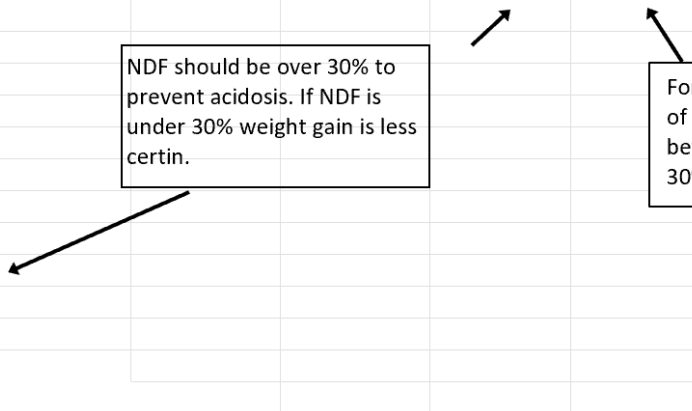
Pellets and silage

Ingredients	Feed intake kg (As Fed)	DM Intake kg	Dry Matter %	Mj ME/kg DM	Total MJ	Protein	Protein Grams	%NDF	Starch	\$ / Tonne As Fed	\$ DAY FEED COST
PADDOCK FEED	0	0	30%	10.0	0.0	16%	0	45%	5.0%	0.00	\$0.00
BARLEY	0	0	89%	12.5	0.0	13%	0	18%	55.0%	326.00	\$0.00
PEA POLLARD	0	0	91%	11.0	0.0	16%	0	41%	21.6%	334.00	\$0.00
FABA BEANS	0	0	90%	12.0	0.0	27%	0	24%	44.0%	425.00	\$0.00
LUPINS	0	0	90%	12.5	0.0	33%	0	24%	0.0%	465.00	\$0.00
OATEN HAY	0	0	90%	8.3	0.0	6%	0	60%	2.0%	280.00	\$0.00
LAMB PELLETS INC RUMICELL \$20/t	1.6	1.44	90%	12.0	17.3	16%	230	23%	30.0%	587.00	\$0.94
BARLEY STRAW	0	0	87%	7.0	0.0	5%	0	70%	2.0%	150.00	\$0.00
DDG PELLETS	0	0	89%	10.9	0.0	25%	0	20%	26.0%	455.00	\$0.00
SILAGE	0.8	0.52	65%	9.5	4.9	14%	73	55%	5.0%	80.00	\$0.06
Total	2.4	1.96	81.7%	11.3	22.2	15.47%	303	31.49%	23.4%	418.00	\$1.00

	1										
ME conc of ration M/D (Mj/kg DM)				11.3							
Dry Matter intake DMI				2.0							
Total ME Mj/Day supplied by Ration				22.2							
Grams of Protein in ration				303.2							
Equivalent protein to ME (inc 15% error margin)*				23.3							
Relative available ME*				22.2							
Maintenance				6.9							
Live Weight Gain per day (kg/day)				0.452							
Days to reach target weight excluding induction				48.70							
Cost of feed per head per day				\$1.00							
Cost of total feed to achieve target				\$48.85							
Feed Conversion Ratio (kg's of feed per 1 kg body weight gain)				4.34							
Cost/kg/live weight gained				\$2.22							
Cost/kg carcass weight				\$4.19							
Purchase price / KILO LIVE WEIGHT				\$ 1.80							
Purchase price				\$ 68.40							
Sell Price per KG live weight				\$ 2.69							
Sell Price AS A FAT LAMB				\$ 161.40							
Total margin over feed costs				\$ 44.15							

NDF should be over 30% to prevent acidosis. If NDF is under 30% weight gain is less certain.

For best results starch of total diet should be between 15% and 30%.



Pellets and straw

Ingredients	Feed intake kg (As Fed)	DM Intake kg	Dry Matter %	Mj ME/kg DM	Total MJ	Protein	Protein Grams	%NDF	Starch	\$ / Tonne As Fed	\$ DAY FEED COST
SUMMER CROP	0	0	20%	12.0	0.0	22%	0	25%	2.0%	35.00	\$0.00
BARLEY	0	0	89%	12.5	0.0	13%	0	18%	55.0%	330.00	\$0.00
PEA POLLARD	0	0	91%	11.0	0.0	16%	0	41%	21.6%	300.00	\$0.00
FABA BEANS	0	0	90%	12.0	0.0	25%	0	24%	44.0%	400.00	\$0.00
LUPINS	0	0	90%	12.5	0.0	33%	0	24%	0.0%	465.00	\$0.00
CEREAL HAY	0	0	90%	10.0	0.0	14%	0	50%	0.0%	220.00	\$0.00
LAMB PELLETS INC RUMICELL \$22/t	1.6	1.44	90%	12.0	17.3	19%	274	23%	30.0%	587.00	\$0.94
BARLEY STRAW	0.45	0.3915	87%	7.0	2.7	5%	20	70%	2.0%	150.00	\$0.07
DRY LICK	0	0	99%	0.0	0.0	0%	0	0%	0.0%	2,500.00	\$0.00
SILAGE	0	0	30%	10.0	0.0	12%	0	55%	5.0%	40.00	\$0.00
Total	2.05	1.83	89.3%	10.9	20.0	16.01%	293	33.05%	24.0%	491.07	\$1.01
ME conc of ration M/D (Mj/kg DM)	1			10.9							
Dry Matter intake DMI				1.8							
Total ME Mj/Day supplied by Ration				20.0							
Grams of Protein in ration	6.5			293.2							
Equivalent protein to ME (inc 15% error margin)*				22.6							
Relative available ME*				20.0							
Maintenance				6.9							
Live Weight Gain per day (kg/day)				0.387							
Days to reach target weight excluding induction				56.84							
Cost of feed per head per day				\$1.01							
Cost of total feed to achieve target				\$57.22							
Feed Conversion Ratio (kg's of feed per 1 kg body weight gain)				4.73							
Cost/kg/live weight gained				\$2.60							
Cost/kg carcass weight				\$4.91							
Purchase price / KILO LIVE WEIGHT				\$ 1.80							
Purchase price				\$ 68.40							
Sell Price per KG live weight				\$ 2.69							
Sell Price AS A FAT LAMB				\$ 161.40							
Total margin over feed costs				\$ 35.78							

NDF should be over 30% to prevent acidosis. If NDF is under 30% weight gain is less certain.

For best results starch of total diet should be between 15% and 30%.

Summer crop and hay

- 25 hectares (approx. 60 acres) x 8 weeks x 2 t dry matter/hectare
- Feed 1000 lambs 1 kg DM/hd/day for 50 days
- Cost \$7500 (\$300/hectare) for the Soilkee + \$1125 (\$45/hectare) for Mr PlantMac = \$8625
- Cost per tonne = $\$8625 / 50$ tonnes dry matter = \$172.50/t dry matter



Summer crop and hay

Ingredients	Feed intake kg (As Fed)	DM Intake kg	Dry Matter %	Mj ME/kg DM	Total MJ	Protein	Protein Grams	%NDF	Starch	\$ / Tonne As Fed	\$ DAY FEED COST
SUMMER CROP	5	1	20%	12.0	12.0	17%	170	35%	2.0%	35.00	\$0.18
BARLEY	0	0	89%	12.5	0.0	13%	0	18%	55.0%	350.00	\$0.00
PEA POLLARD	0	0	91%	11.0	0.0	16%	0	41%	21.6%	334.00	\$0.00
FABA BEANS	0	0	90%	12.0	0.0	27%	0	24%	44.0%	425.00	\$0.00
LUPINS	0	0	90%	12.5	0.0	33%	0	24%	0.0%	465.00	\$0.00
CEREAL HAY	0.5	0.45	90%	9.0	4.1	9%	41	58%	2.0%	250.00	\$0.13
HGS LAMB PELLETS	0	0	90%	12.0	0.0	16%	0	23%	30.0%	587.00	\$0.00
BARLEY STRAW	0	0	87%	7.0	0.0	5%	0	70%	2.0%	150.00	\$0.00
APS DRY LICK	0.02	0.0198	99%	0.0	0.0	0%	0	0%	0.0%	2,500.00	\$0.05
SILAGE	0	0	69%	9.0	0.0	14%	0	55%	5.0%	150.00	\$0.00
Total	5.52	1.47	26.6%	10.9	16.1	14.32%	211	41.57%	2.0%	63.41	\$0.35

	1										
ME conc of ration M/D (Mj/kg DM)				10.9							
Dry Matter intake DMI				1.5							
Total ME Mj/Day supplied by Ration				16.1							
Grams of Protein in ration				210.5							
Equivalent protein to ME (inc 15% error margin)*				16.2							
Relative available ME*				16.1							
Maintenance				6.9							
Live Weight Gain per day (kg/day)				0.270							
Days to reach target weight excluding induction				81.39							
Cost of feed per head per day				\$0.35							
Cost of total feed to achieve target				\$28.49							
Feed Conversion Ratio (kg's of feed per 1 kg body weight gain)				5.44							
Cost/kg/live weight gained				\$1.29							
Cost/kg carcass weight				\$2.44							
Purchase price / KILO LIVE WEIGHT				\$ 1.80							
Purchase price				\$ 68.40							
Sell Price per KG live weight				\$ 2.69							
Sell Price AS A FAT LAMB				\$ 161.40							
Total margin over feed costs				\$ 64.51							

NDF should be over 30% to prevent acidosis. If NDF is under 30% weight gain is less certain.

For best results starch of total diet should be between 15% and 30%.

What if it doesn't rain at all?

- The 2 t dry matter per hectare crop probably requires a 2 inch thunderstorm
- If not, most of the seed will sit in the ground waiting for the Autumn break
- The Soilkee will have improved your soil structure
- No spraying out or ploughing means fast recovery when it does rain
- Spent \$8625 and it doesn't grow any food for the time you planned it. Alternative only buys 1 b double (40 t instead of 75 t DM crop) of hay at \$220/t



Which option wins?

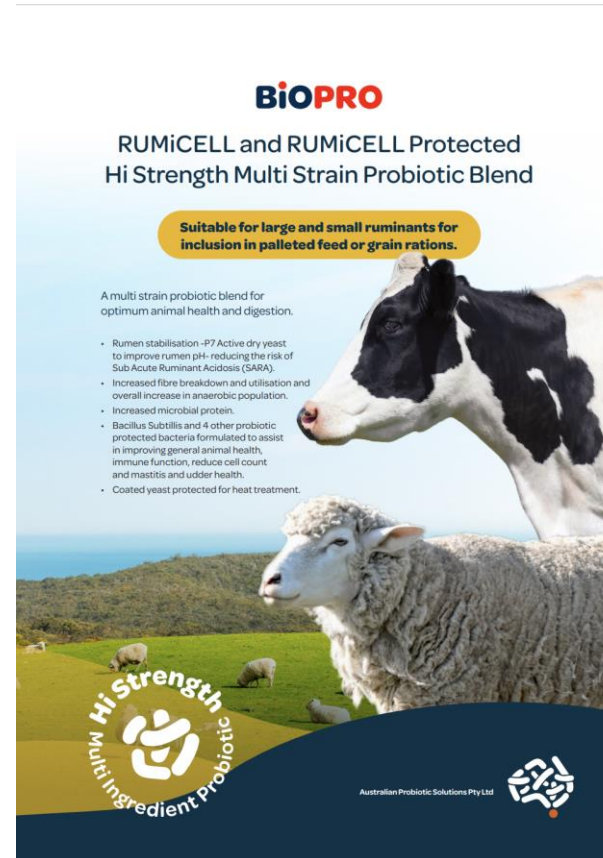
Key figures of interest	Grass only	Grass + barley	Barley + faba beans + oat hay	Pea pollard + straw
Live Weight Gain per day (kg/hd/day)	0.195	0.354	0.275	0.255
Days to reach target weight excluding induction	112	62	80	86
Cost of total feed to achieve target (\$/hd)	\$ 5.63	\$ 18.35	\$ 47.00	\$ 46.31
Total margin over feed costs (\$/hd)	\$ 87.37	\$ 73.45	\$ 45.99	\$ 46.69

Key figures of interest	Pea pollard + barley	Pellets and silage	Pellets and straw	Summer crop and hay
Live Weight Gain per day (kg/hd/day)	0.258	0.452	0.387	0.270
Days to reach target weight excluding induction	85	49	57	81
Cost of total feed to achieve target (\$/hd)	\$ 48.07	\$ 48.85	\$ 57.22	\$ 28.49
Total margin over feed costs (\$/hd)	\$ 44.93	\$ 44.15	\$ 35.78	\$ 64.51

A range of products to choose from

- Rumicell
- Grower (BP100HS)
- Dry Lick

- What to look for...
 - Healthier lambs = less deaths
 - Faster turn-out through increased FCE



BiOPRO
RUMiCELL and RUMiCELL Protected
Hi Strength Multi Strain Probiotic Blend

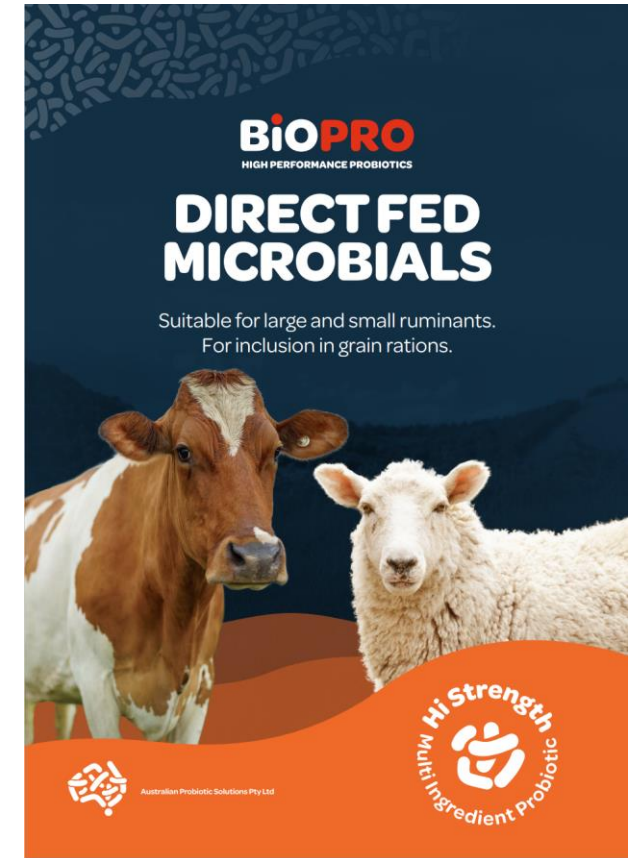
Suitable for large and small ruminants for inclusion in palleted feed or grain rations.

A multi strain probiotic blend for optimum animal health and digestion.

- Rumen stabilisation -P7 Active dry yeast to improve rumen pH- reducing the risk of Sub-Acute Ruminant Acidosis (SARA).
- Increased fibre breakdown and utilisation and overall increase in anaerobic population.
- Increased microbial protein.
- Bacillus Subtilis and 4 other probiotic protected bacteria formulated to assist in improving general animal health, immune function, reduce cell count and mastitis and udder health.
- Coated yeast protected for heat treatment.

Hi Strength Multi Ingredient Probiotic

Australian Probiotic Solutions Pty Ltd



BiOPRO
HIGH PERFORMANCE PROBIOTICS

DIRECT FED MICROBIALS

Suitable for large and small ruminants.
For inclusion in grain rations.

Hi Strength Multi Ingredient Probiotic

Australian Probiotic Solutions Pty Ltd

Rumicell

Rumicell and Rumicell Protected	
Desired dose g per cow per day	2.5
Finished feed rate kg per cow per day	1.6
Product inclusion rate kg per tonne finished feed	1.6
APS product price \$ per tonne	\$11,000.00
Cost \$ per tonne finished feed	\$ 17.19
Cost \$ per lamb per day	\$ 0.03
Days on feed	57
Cost APS \$ per feeding period	\$ 1.57
Total feed cost \$ per lamb per day for feeding period	\$0.98
Total feed cost including APS per lamb per day for feeding period	\$ 1.01
Liveweight gain kg/head/day	0.351
Days on feed to cover cost of APS (finisher earlier)	1.6
Liveweight gain kg/head/day to cover cost of APS	0.361



Grower (BP100HS)

BP100HS	
Desired dose g per cow per day	3
Finished feed rate kg per cow per day	1.6
Product inclusion rate kg per tonne finished feed	1.9
APS product price \$ per tonne	\$ 8,700.00
Cost \$ per tonne finished feed	\$ 16.31
Cost \$ per lamb per day	\$ 0.03
Days on feed	57
Cost APS \$ per feeding period	\$ 1.49
Total feed cost \$ per lamb per day for feeding period	\$0.98
Total feed cost including APS per lamb per day for feeding period	\$ 1.01
Liveweight gain kg/head/day	0.351
Days on feed to cover cost of APS (finish earlier)	1.5
Liveweight gain kg/head/day to cover cost of APS	0.360



Dry Lick



Ingredients Guaranteed Analysis

Level per kg of Premix

INGREDIENT	LEVEL
Vitamin A	0.30miu
Vitamin D3	0.04miu
Vitamin E	0.50g
Vitamin B1	0.25g
Biotin	0.10g
Cobalt	0.20g
Iodine	0.10g
Selenium	0.012g
Manganese	4.00g
Zinc	4.00g
Sulphur	5.00g
Molybdenum	0.04g
BioRumen 100	25.00g
Magnesium	8.10%
Calcium	14.50%
Phosphorus	5.40%
Salt	20.00%

- \$50/20 kg bag + GST
- Dose rate 10-30 g/head
- Can be fed year-round to ewes as well as growing animals

Summary

- There are a variety of profitable options for this summer for feeding lambs
- APS can customise a solution for your situation depending on how much homegrown concentrate and forage that you have available
- APS has a product stages of life – help stock adapt to changing diets, balance the rumen, improve feed conversion, boost immune function (amongst other things)
- Induction is very important
- Keep the lambs watered, full and sheltered



Thank you



- Feel free to have a chat with us (Mark, Ash, or Tim) over lunch

Tim Huggins

Technical and Sales Manager

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