

# Feed Budget Tables

for the **break of the season**  
in annual pasture systems of  
southern Australia



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more lambs, better wool, healthy ewes

## When to use these tables:

When green annual paddock feed isn't enough early in the season or managing ewes to targets over pregnancy and lactation. Use the Tables for Drought conditions when only dry feed is available.

## Step 1. What they Need:

TABLE 1a. Energy Required by Ewes @ Condition Score 3 to maintain weight								
Maintenance energy (MJ/d) for ewes under paddock conditions							Confinement Fed	
day of pregnancy	small frame (45kg) maintain CS 3		medium frame (50kg) maintain CS 3		large frame (60kg) maintain CS 3		medium frame (50kg) maintain CS 3	
	single	twin	single	twin	single	twin	single	twin
dry	7.8	7.8	8.3	8.3	9.9	9.9	6.7	6.7
50	8.1	8.2	8.6	8.7	10.1	10.3	6.9	7.2
70	8.3	8.7	9.1	9.4	10.5	10.9	7.4	7.7
100	9.3	10.3	10.3	11.5	11.8	13.2	8.3	9.6
130	11.6	14.4	12.8	15.9	14.8	17.9	10.9	11.7
days lactating	maintain CS 3		maintain CS 3		maintain CS 3		maintain CS 3	
	single	twin	single	twin	single	twin	single	twin
10	17.7	22.0	19.2	24.0	21.9	28.7	ask for advice on confinement feeding ewes and lambs	
30	19.2	24.1	20.8	26.5	23.4	29.8		
50	15.8	19.5	17.2	21	19.4	24.2		

TABLE 1b. Energy Required by Ewes @ Condition Score 2 to maintain weight								
Maintenance energy (MJ/d) for ewes under paddock conditions							Confinement Fed	
day of pregnancy	small frame (45kg) maintain CS 2		medium frame (50kg) maintain CS 2		large frame (60kg) maintain CS 2		medium frame (50kg) maintain CS 2	
	single	twin	single	twin	single	twin	single	twin
dry	6.9	6.9	7.2	7.2	8.7	8.7	6.0	6.0
50	7.1	7.2	7.4	7.7	8.8	9.0	6.2	6.5
70	7.4	7.7	7.8	8.4	9.3	9.5	6.7	7.1
100	8.3	9.4	9.0	10.3	10.7	11.7	7.7	9.0
130	10.1	12.9	10.9	13.7	13.1	15.9	9.6	12.3
days lactating	maintain CS 2		maintain CS 2		maintain CS 2		maintain CS 2	
	single	twin	single	twin	single	twin	single	twin
10	15.2	19.0	16.0	20.8	18.5	24.1	ask for advice on confinement feeding ewes and lambs	
30	16.1	21.3	17.8	24.0	19.9	26.7		
50	12.9	16.7	13.6	17.9	16.3	20.9		

## Background:

This is only a guide – monitor your sheep to check that feeding rates are adequate. No account has been made for pasture growth rate, different composition or quality of feed.

These tables are based on GrazFeed® values for pastures with 20% clover and 12MJ/kgDM. For more detailed results refer to Grazfeed“.

## Step 2. What they can eat:

TABLE 2a. Intake for small frame ewes (MJ/day)			
FOO	small frame ewe (45kg)		
	d 0-150	mid lactation	
300	6.5	9.0	10.0
500	8.5	11.5	13.0
800	10.5	15.0	16.5
1000	12.0	17.0	19.0
1200	13.0	18.5	20.5

TABLE 2b. Intake for medium frame ewes (MJ/day)			
FOO	medium frame ewe (50kg)		
	d 0-150	mid lactation	
300	8.0	11.5	12.5
500	9.5	14.5	15.5
800	12.0	17.5	19.0
1000	13.0	19.5	21.0
1200	15.5	21.0	22.5

TABLE 2c. Intake for large frame ewes (MJ/day)			
FOO	large frame ewe (60kg)		
	d 0-150	mid lactation	
300	9.0	12.0	13.5
500	11.0	15.0	16.5
800	13.5	18.5	20.5
1000	16.5	20.0	22.5
1200	18.0	21.5	24.0

## Step 3. Losing or gaining weight?

Deficit MJ/day	expected loss g/h/d	CS in 10 days (45kg)	CS in 10 days (50kg)	CS in 10 days (60kg)
2	-70	-0.10	-0.10	-0.05
4	-135	-0.20	-0.15	-0.15
6	-200	-0.30	-0.25	-0.20
8	-270	-0.35	-0.35	-0.25
10	-340	-0.45	-0.40	-0.35
Surplus MJ/day	expected gain g/h/d	CS in 10 days (45kg)	CS in 10 days (50kg)	CS in 10 days (60kg)
2	40	0.05	0.05	0.05
4	75	0.10	0.10	0.10
6	120	0.15	0.15	0.10
8	160	0.20	0.20	0.15
10	200	0.25	0.25	0.20

## Step 4. How much to feed?

TABLE 4. Approximate Feed Values			
Grain	ME (MJ/kg DM)*	Crude Protein %	DRY MATTER %
Oats	10.4	8.8	90
Barley	12.3	10.8	90
Wheat	13.1	14.2	90
Triticale	13.0	12.0	90
Lupins	13.1	31.3	90
Oaten hay	9.0	6.0	85

\* grains vary considerably, where possible have your feed tested.

## WORKED EXAMPLE

Dry large frame ewes grazing 300 FOO (kg DM/ha) in condition score (CS) 3 at day 70 of pregnancy with twins. How many lupins do they need to maintain condition?

### STEP 1.

From Table 1a, their energy requirements for maintenance is 10.9 MJ/d.

### STEP 2.

From Table 2c, their intake is 9.0 MJ/d.

The ewe's energy deficit is  $10.9 - 9.0 = 1.9$  MJ/d.

### STEP 3.

Using Table 3, the deficit in energy means a weight loss of ~70 g/h/d. With losing 0.05 condition score in 10 days these ewes will be 0.15 CS lower in 1 month.

### STEP 4.

Lupins on hand have 13 MJ/kg and 90% dry matter from Table 4.

### USING TABLE 5.

find 13 MJ on the left column, read across until 1.9 (~2.3) MJ deficit is reached, follow the column upwards to read the amount to be fed (0.2kg/hd/day).

**0.2 kg is the ration to be fed.**

Ration to be fed (kg as fed assuming 90% dry matter)										
ME of feed	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
6.0	0.5	1.1	1.6	2.	2.7	3.2	3.8	4.3	4.9	5.4
6.5	0.6	1.2	1.8	2.3	2.9	3.5	4.1	4.7	5.3	5.9
7.0	0.6	1.3	1.9	2.5	3.2	3.8	4.4	5.0	5.7	6.3
7.5	0.7	1.4	2.0	2.7	3.4	4.1	4.7	5.4	6.1	6.8
8.0	0.7	1.4	2.2	2.9	3.6	4.3	5.0	5.8	6.5	7.2
8.5	0.8	1.5	2.3	3.1	3.8	4.6	5.4	6.1	6.9	7.7
9.0	0.8	1.6	2.4	3.2	4.1	4.9	5.7	6.5	7.3	8.1
9.5	0.9	1.7	2.6	3.4	4.3	5.1	6.0	6.8	7.7	8.6
10.0	0.8	1.8	2.7	3.6	4.5	5.4	6.3	7.2	8.1	9.0
10.5	0.9	1.9	2.8	3.8	4.7	5.7	6.6	7.6	8.5	9.5
11.0	1.0	2.0	3.0	4.0	5.0	5.9	6.9	7.9	8.9	9.9
11.5	1.0	2.1	3.1	4.1	5.2	6.2	7.2	8.3	9.3	10.4
12.0	1.1	2.2	3.2	4.3	5.4	6.5	7.6	8.6	9.7	10.8
12.5	1.1	2.3	3.4	4.5	5.6	6.8	7.9	9.0	10.1	11.3
13.0	1.2	2.3	3.5	4.7	5.9	7.0	8.2	9.4	10.5	11.7
13.5	1.2	2.4	3.6	4.9	6.1	7.3	8.5	9.7	10.9	12.2
14.0	1.3	2.5	3.8	5.0	6.3	7.6	8.8	10.1	11.3	12.6
14.5	1.3	2.6	3.9	5.2	6.5	7.8	9.1	10.4	11.7	13.1

# Feed Budgeting Worksheet

## Step 1. What they need

Choose Table 1a. for ewes @ conditions score 3  
Choose Table 1b. for ewes @ condition score 2  
Choose the column for the frame size of the mob  
Choose the correct day of pregnancy/lactation

## Step 2. What they can eat

Choose the Table for frame size of the mob  
Read off the value using FOO available and pregnancy/lactation status

## Step 3. Losing or Gaining weight?

What they need – What they can eat = deficit or surplus of energy.

Use table 3. to find out how much of a condition score they will lose or gain in 10 days

## Step 4. How Much to Feed?

If there is a deficit use Table 4. or results from your feed test to find out the Metabolisable Energy value of the feed.

Use Table 5 to determine how much extra feed is required. Choose the ME of the Feed in the left column, move along until the ME deficit amount is found, then read off the figure in the ration heading.

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**TABLE 5.****Ration to be Fed****(ME of ration in left hand column and energy deficit in body of table)**

Ration to be fed (kg as fed assuming 90% dry matter)										
ME of feed	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
6.0	0.5	1.1	1.6	2.	2.7	3.2	3.8	4.3	4.9	5.4
6.5	0.6	1.2	1.8	2.3	2.9	3.5	4.1	4.7	5.3	5.9
7.0	0.6	1.3	1.9	2.5	3.2	3.8	4.4	5.0	5.7	6.3
7.5	0.7	1.4	2.0	2.7	3.4	4.1	4.7	5.4	6.1	6.8
8.0	0.7	1.4	2.2	2.9	3.6	4.3	5.0	5.8	6.5	7.2
8.5	0.8	1.5	2.3	3.1	3.8	4.6	5.4	6.1	6.9	7.7
9.0	0.8	1.6	2.4	3.2	4.1	4.9	5.7	6.5	7.3	8.1
9.5	0.9	1.7	2.6	3.4	4.3	5.1	6.0	6.8	7.7	8.6
10.0	0.8	1.8	2.7	3.6	4.5	5.4	6.3	7.2	8.1	9.0
10.5	0.9	1.9	2.8	3.8	4.7	5.7	6.6	7.6	8.5	9.5
11.0	1.0	2.0	3.0	4.0	5.0	5.9	6.9	7.9	8.9	9.9
11.5	1.0	2.1	3.1	4.1	5.2	6.2	7.2	8.3	9.3	10.4
12.0	1.1	2.2	3.2	4.3	5.4	6.5	7.6	8.6	9.7	10.8
12.5	1.1	2.3	3.4	4.5	5.6	6.8	7.9	9.0	10.1	11.3
13.0	1.2	2.3	3.5	4.7	5.9	7.0	8.2	9.4	10.5	11.7
13.5	1.2	2.4	3.6	4.9	6.1	7.3	8.5	9.7	10.9	12.2
14.0	1.3	2.5	3.8	5.0	6.3	7.6	8.8	10.1	11.3	12.6
14.5	1.3	2.6	3.9	5.2	6.5	7.8	9.1	10.4	11.7	13.1



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