



Tactics for Tight Times

Feed budgeting

How much feed do you actually need to buy? During these tight times it is more important than ever to do a feed budget and to ensure that you know what quantities of feed to buy each month to produce the monthly volumes of milk required to generate budgeted milk income and profit. There are a number of feed budgeting methods and tools available (paper and software based) and many dairy advisers who can readily assist you.

It's important to plan well before you buy

- Do you have the feed requirements of all your stock covered for the coming months?
- Do you know how much feed you need to buy?

A feed budget involves three steps:

Step 1 Calculate your monthly feed demand

1. Count how many animals there are to feed, and milk production/growth targets.
2. Calculate the daily Metabolisable Energy (ME) requirements of each class of stock - milkers, dry cows, yearling heifers and calves.
3. Calculate tonnes of Dry Matter (DM) required for all stock each month, based on animals' daily Metabolisable Energy (ME) requirements and stock numbers.

Step 2 Calculate your total feed deficit for each month

1. Calculate tonnes of home-grown DM available each month (pastures, other standing crops, silage and hay on hand).
2. Subtract tonnes of home-grown DM from tonnes of DM required for all stock each month.

Step 3 Calculate qty of bought-in feeds required per month

1. Describe what feeds you intend to buy to fill the feed deficit for each month.
2. Formulate balanced diets for each class of stock – milkers, dry cows, yearling heifers and calves.
3. Using these diets and the stock numbers from Step 1, calculate the total tonnes of each feed that need to be bought each month.



Key tips

- › Develop a month-by-month feed budget for all your stock.
- › When calculating monthly feed demand, use accurate stock numbers and realistic ME requirements for different classes of stock.
- › When calculating total feed deficit for each month, use sound estimates of pasture growth and utilisation rates, and quantities of home-grown hay and silage on-hand.
- › Make realistic allowances for feed wastage based on your intended feed-out methods.
- › Revise your feed budget when circumstances change.

It may be well worth getting an adviser to help you do your feed budget, or to at least double check it.

Tips for feed budgeting and using the feed budgeting tool

Step 1 Calculate your monthly feed demand

- › Be sure to do an accurate head count.
- › Be realistic about the ME requirements of different classes of stock. See Table 1.
- › For milkers, adjust ME requirements for expected liveweight gain or loss, depending on stage of lactation.
- › Table 2 shows the additional ME inputs needed for body condition score (BCS) gains. Note that cows are more efficient at converting feed into body condition while still milking than when dry. If necessary, seek help from an adviser to calculate ME requirements.

Table 1 Daily ME requirements for different classes of stock

Class of stock	Daily ME requirements
Milking cows	70-95 MJ ME for maintenance (depending on liveweight, walking activity, weather conditions) plus 5-5.5 MJ ME per litre of milk. Also allow for any change in body condition.
Dry cows	90-100 MJ ME (depending on liveweight)
Yearling heifers	80-100 MJ ME (depending on liveweight)
Calves	40-80 MJ ME (depending on liveweight)

Table 2 Additional ME inputs needed for body condition score (BCS) gains

Cow's liveweight	Additional MJ ME per day to increase BCS from 4 to 5					
	in 30 days		in 45 days		in 60 days	
	Lactating cow	Dry cow	Lactating cow	Dry cow	Lactating cow	Dry cow
400kg (Jersey)	49	67	33	45	25	34
475kg (Friesian x Jersey)	58	80	39	53	29	40
550kg (Friesian)	68	94	45	63	34	47
650kg (Holstein-Friesian)	80	110	53	74	40	55
750kg (Large framed Holstein-Friesian)	91	127	60	85	45	64

Feed Budgeting Tool makes it easy

Dairy Australia's Feed Budgeting Tool can help you estimate what quantities of feed you need to buy each month in three easy steps.

Features of the tool:

- › Calculates tonnes of feed Dry Matter required and supplied based on megajoules of Metabolisable Energy (MJ ME).
- › Provides estimated daily growth rates for pastures at locations across all regions.
- › Factors in wastage during feed-out.

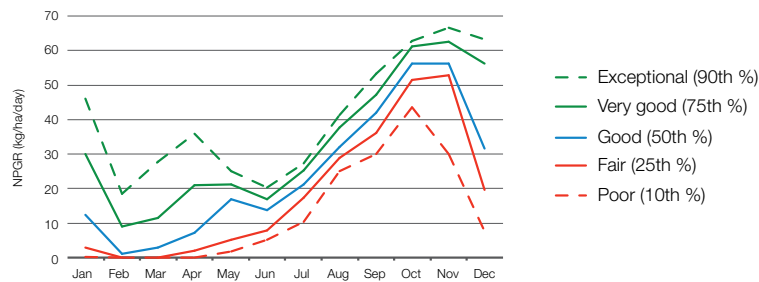
To download this Excel spreadsheet tool, visit tfft.dairyaustralia.com.au/toolsandresources.

Step 2 Calculate your total feed deficit for each month

- › The Dairy Australia Feed Budgeting Tool estimates tonnes of pasture dry matter available to cows each month using monthly estimates of daily growth rates for locations across Australia based on simulations using the DairyMod model. (See Figure 1 for an example). For the nearest location to your farm, for a specific pasture type, select one of 5 alternative growth rates – exceptional, very good, good, fair or poor - based on how conditions expected for the coming month compare with long term trends for that month. Then select a high, moderate or low utilisation rate.
- › If necessary, seek help from an adviser to estimate quantities of pasture and other home-grown feeds on-hand (tonnes Dry Matter).

Revise your feed budget when circumstances change. For example, available feeds, number of animals to be fed.

Figure 1 Example: Colac, SW Vic. Pasture growth rates for perennial ryegrass (dryland)



Step 3 Calculate quantities of bought-in feeds you require each month

- › Quantities of grain / concentrates and bought-in fodder entered should be based on formulated diets that are nutritionally well-balanced, and will maintain healthy rumen function and feed conversion efficiency. If necessary, seek help from a nutrition specialist.
- › Make realistic allowances for feed wastage based on your intended feed-out methods. See Table 3. For more information on feed wastage, visit dairyaustralia.com.au/Pastures-and-Feeding/Feed-management/Feed-waste.aspx.

Table 3 Feed wastage using different feed-out methods

Feed-out method	Minimum	Typical	Maximum
In the dairy at milking	0%	1%	2%
In grazing paddock, on pasture	5%	15%	25%
In sacrifice paddock, fed on bare ground, in ring feeders, or under a fence line	5%	25%	35%
On permanent feed pad incorporating a compacted surface and purpose-built feed troughing	2%	5%	10%
On permanent, fully developed feed pad with concrete surfaces	0%	3%	5%

Note: These figures assume dry conditions. They may not reflect the full range of wastage that might occur under wet conditions.

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