

Rapid drought recovery

One approach towards a rapid recovery could be to feed a large amount of high energy supplementary feed. This is an easy option to implement, pick up the phone and dial the nearest feed merchant. The amount of “meal” purchased can be reconciled against the shortfall in pasture.

However, care is needed when bridging large pasture deficits in this manner. The cost may outweigh the benefit, prove difficult to implement and/or create some downstream problem.

High energy feeds include processed meal or the basic component of crushed grain, normally maize or barley. These feeds complement a pasture based diet when fed in the right proportions. Cows will milk better and may even improve in condition if feeding levels are high.

Using the UDDER dairy farm computer model, an example dry East Coast farm stocked at 2.6 cows per hectare was tested for one-off use of crushed barley this spring. In this case 20 tonne was fed over the first 60 days of lactation to a herd of 210 cows.

Using a payout of \$7.00, pasture cover 1900 DM/ha and cow condition of 4.25 on 1 July, the computer model suggests the farm would produce an extra 16kg milksolids per cow, (45kg per hectare) over the season. The herd would finish the season 0.2 score higher in condition.

The cost of feeding 20 tonne of crushed barley will vary with the feed cost, feeding system and the crucial factor of wastage. Assuming the crushed barley averaged \$500 per tonne fed then 20 tonne would cost \$10,000.

The model shows the 210 cows should produce an extra 3430 milksolids through the season, and milk revenue would increase by \$24,000. This would result in a net surplus of \$14,000 plus the benefits that might come from better animal health and mating performance.

The use of crushed barley in this example is a one-off where pasture cover and cow condition are limiting at the start of the season. To feed grain economically wastage must be minimised.

If cows eat too much grain in one session they can die from grain overload. It is best to introduce crushed barley or similar grain meal products in half kg increments. In a New Zealand pastoral based system, 2–3 kg per head is high. Grain overload can occur for any individual animal gorging itself; 4–6 kg, depending on breed and size, can trigger a problem.

Then there is the cashflow implications of committing \$10 000 up front for crushed barley in the above example. It takes the entire season to realise the benefit of improved feeding in the spring. Meanwhile there is an interest cost effective in the advance purchase of the grain.

There is a variety of crushed grains and meals available at a range of prices and these should be checked out to ensure a cost effective milk response does occur.

Alternatives – Once daily milking

There are alternatives to feeding large amounts of grain. Once daily milking in early lactation can prove beneficial.

Most farmers are reluctant to use once daily milking as a tool because of the immediate loss in milk production. Limited research (into this option) suggests milk production will reduce by up to 20 percent. On the positive side there will be less stress on an animal in low condition. Weight loss will be less and [cow condition] may even improve.

Once daily milking, although not proven, may help some animals return to oestrous, which improves the submission statistics for mating. Less walking to the shed can reduce feet problems and other animal health factors can benefit from less stress and better condition.

Using the same UDDER model from above, 50 percent of the herd was placed on once daily milking for the first 45 days of lactation as an alternative to feeding meal. The cows' lowest in condition would be selected for this treatment.

With no other changes in management, milk production initially declined by 8 percent then increased as the whole herd was returned to twice daily milking. A net lift of 2kg MS for every cow in the herd resulted. At \$7.00 this represented \$14 per cow or \$2940 for the 210 cow herd.

There would be additional benefits from less stress on both the cow and the farmer.

Grazing management

The "feed wedge" term describes the pattern of pasture over the farm. A steep wedge indicates a few paddocks with very high covers and a few with low covers. This is the typical situation for many. A few paddocks have been shut for a long period of time.

The risk can be that farmers will eat off pasture too rapidly. Early calving cows get well fed but as the herd size increases the amount of available pasture rapidly declines. To compensate, the rotation speed around the farm is increased.

If pasture growth is not fast enough the rotation speed has to be increased further. The effect in a worst case situation is a farm that becomes set stocked on very low feed levels.

Grass grows grass

A principle that is very well accepted in modern dairy farming is that "grass grows grass".

Pasture will grow more rapidly between 1500 and 2800 DM/ha. The more of the farm in this state the more total feed that is grown and available for the cows.

There is a compromise of course because during the time it takes to accumulate feed the cows have to be fed. For the first 6–8 weeks from calving the aim is to keep the milkers on a rising plane of nutrition. Animals calving around mid-August do not want to be hit by a feed shortage in mid-September.

Grazing rations

For farmers that regularly run out of pasture in early to mid-September there is a grazing management technique that may help. This is to allocate pasture in a controlled manner right from the day that the first cow calves.

Area is allocated to cows in a consistent manner. In fact by pacing out an area per cow it is possible to calculate how fast the cows can afford to travel without finishing the first round of the farm too soon.

As a guide most farms would start at 80m² per cow per day. Through the first round this area will only increase in small steps until it reaches a maximum of 130m². The second round of the farm may reach a maximum of 150m².

To calculate your maximum rotation speed, divide the farm area in hectares by your preferred maximum rotation speed. Then multiply by 10,000 and divide by peak cow numbers.

Example:

80ha divided by 25 day rotation = 3.2ha per day

3.2ha x 10,000 = 32,000 m²

32,000 m² divide by 210 cows = 152m²/cow/day

A good dairy farm manager may not need to use a calculator but instinctively knows that there is a limit to the area allocated. Care is needed to effect some control right from the commencement of calving.

In summary, this article suggests three management tools that will help bring the drought affected dairy farm on track. Meal feeding, once daily milking and controlled grazing all have their place. Choosing a policy or strategy will be subject to the severity of the individual farm's situation. Careful assessment is a key part of determining what is the best approach.

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“They’re considering our application for relief from last year’s drought”