



### Feed Shortage 2018

# Making the most of spring feed

Heading into spring, it is crucial that we maximise pasture growth to ensure that we are able to produce and conserve as much high-quality forage as possible.

## Setting paddock rotations to maximise pasture quality

Through most of winter, pasture quantity was far more limiting on most farms than quality. Normally, in early spring, as pasture growth and leaf appearance rates increase, our focus needs to shift to managing for quality. Paddock rotation length generally needs to be shortened to help maintain grazing pressure and ensure high-quality pasture is available by reducing the rotation length. Whether soils are drier than average or still moist, pastures will be in a much better position to give greater yield responses if they have not been overgrazed.

Try and maintain a rotation based on leaf stage, the focus should be on grazing at the 2–2½ leaf stage and leaving 4–6 cm residual pasture after grazing. This will ensure that pasture quality is maintained and shading at the base of the sward is minimised.

## Locking up paddocks – how many and which ones?

As spring progresses, it is important to only drop paddocks out of the rotation for conservation that are surplus to the herd's requirements.

In most years on a majority of farms, pasture growth will generally exceed herd requirements in early to mid-September.

## Key messages

- Maintain pasture quality by grazing at the 2–2½ leaf stage
- Keep post grazing pasture residuals at 4–6 cm
- Lock up the true surplus for conservation and cut at canopy closure to ensure quality
- Consider using N fertiliser at rates between 20–60kg N/ha to improve pasture growth rates

This year, however, depending on climatic conditions and management e.g. if your pasture has been continually overgrazed (i.e. grazed before the 2-leaf stage and the grazing residual is below 4 cm) or if pastures have been moisture stressed or too wet, the spring surplus will be unpredictable and will likely have reduced yields.

A simple strategy to determine how many paddocks to lock up is to graze paddocks in the same order each rotation, and if the next paddock is beyond the ideal leaf stage, skip it and drop it out of the rotation until it is ready to be cut for silage or hay.

If pasture growth slows and you need more grazing area, use the 'dropped out' paddock with the least mature pasture (or, alternatively, increase the rate of supplements fed per day).

Other things to consider when deciding which paddocks to lock up include:

- › How easy will it be to get machinery into and onto this paddock if it rains heavily?
- › Pasture composition – is it a ryegrass or ryegrass/clover mix with minimal weeds?

- › Is the paddock to be used for a follow-up summer crop and when does it need to be sown in relation to soil temperature, soil moisture and trafficability?
- › Is the paddock close to sources of water for irrigation?
- › Are potassium levels in soil excessive? Silage from these paddocks may be undesirable for feeding to transition cows.

### Now what can you do to conserve as much high-quality forage as possible?

Using nitrogen fertiliser on locked up paddocks will increase pasture dry matter yields. There are, however, other key things to consider as you seek to conserve as much high-quality forage as possible, see Table 1 below.

### Keys to pasture management this spring

- › Ensure the rotation is shortened to maintain pasture quality and change your grazing indicator from 2½–3 leaf stage to 2–2½ leaf stage.
- › Ensure a 4–6 cm post-grazing pasture residual by adjusting the area grazed and/or the rate of supplements fed per day.
- › Only lock up pasture for conservation that is surplus to the herd's requirements.
- › Consider using nitrogen fertiliser at rates between 20–50 kg N/ha.
- › Plan to cut pasture at the very early heading stage, ideally before the heads emerge, to ensure the best quality and quantity silage for your herd.

**Table 1** Considerations when conserving high quality forage

Keep in mind	Management tip
Weeds	If capeweed or other weeds have infiltrated large areas of pasture, spray with an appropriate herbicide as soon as possible. If traffic is possible on the weed-infected paddock(s), consider the spray-graze technique to reduce broadleaf problems at a reduced cost with minimal setback on pasture growth.
Pests	Watch for prevalence of red-legged earth mite, lucerne flea, etc. and spray with an appropriate pesticide before their population increases dramatically.
Timing of nitrogen application	Cut pasture within 4–6 weeks of application of nitrogen fertilisers. If cutting is delayed too long, e.g. beyond 8 weeks, the pasture quality declines more rapidly than if no nitrogen is applied, resulting in large quantities of lower quality silage unsuitable for feeding cows in early lactation.
Nitrogen application rates	An application range of 20–50 kg N/ha is generally the most effective. Using higher rates of nitrogen usually results in lower responses/kg N applied and increased damage to the environment due to excessive N being inefficiently utilised. Do not apply fertiliser if soils are saturated, or before a significant rain event is forecast. When using nitrogen remember that you should target your best paddocks, which are usually the paddocks that have been recently renovated with good pasture species and good soil fertility.
P and K fertiliser	If soil is lacking in phosphorus and/or potassium, consider an appropriate fertiliser blend. Do not apply fertiliser if soils are saturated, or before a significant rain event is forecast.
Stage of maturity at cutting	The single-most important factor for ensuring high-quality fodder is the stage of maturity at cutting. For silage, ryegrasses should be cut at the very early heading stage, ideally before the heads emerge. For hay, as early as practical when weather permits. An additional benefit of early cutting is that regrowth will be quicker and more vigorous when the paddock goes back into the grazing rotation.
Wilting/curing rate	Reducing the period of wilting (silage) or curing (hay) reduces the losses of dry matter and nutritive value. Using a tedder immediately after mowing or cutting with a mower-conditioner and leaving a wide swath will greatly increase the rate of drying.

For further information on silage making, refer to the Quality pasture silage – five easy steps booklet at [dairyaustralia.com.au/feedshortage](http://dairyaustralia.com.au/feedshortage).

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