

Making the most of spring pasture

This spring, if you are fortunate to have plenty of pasture, you will be aiming not only to keep your herd on the curve but also to produce and conserve as much high-quality forage as possible.

Keys to pasture management this spring

Ensure the paddock rotation is shortened to maintain grazing pressure and ensure that high-quality pasture is available so cows' pasture intakes and milk yields are not restricted. Change your grazing indicator from 2½–3 leaf stage to 2–2½ leaf stage.

Stay in control of the post-grazing pasture residual by adjusting the area grazed and/or the rate of supplements fed per day. Keep at 4–6 cm. This will ensure that pasture quality is maintained and shading at the base of the sward is minimised. If cows leave too much pasture behind, top the paddock, add another class of stock, or make the paddock into silage on the next rotation. Silage may be of slightly lower quality, but it is better to capture the feed. Adjust your concentrate (supplement) feeding levels if required.

Assuming soil moisture is adequate, consider using nitrogen fertiliser to maximise spring feed. Apply N at rates of 20–50 kg N/ha per application, no closer than 21 to 28 days apart when the pasture is actively growing and can utilise the N. Do not graze perennial pastures for 7 to 14 days after nitrogen application. In paddocks locked up for conservation, apply N at a higher rate (up to 60 kg of N/ha in later spring). For more information, refer to fact sheet 'Maximising spring feed with nitrogen'.

Only lock up pasture for conservation that is surplus to the herd's requirements.

Plan to cut pasture for conservation at the very early heading stage, ideally before the heads emerge, to ensure the best quality and quantity silage for your herd.

KEY MESSAGES

Optimise milk production from spring pasture by ensuring neither the quantity nor quality is restricting intake

Maintain pasture quality by grazing at the 2–2½ leaf stage

Keep post grazing pasture residuals at 4–6 cm

Consider using nitrogen to create a greater surplus for conservation

Bank the true surplus for conservation and cut before canopy closure to ensure quality

Identifying the 'true' surplus early

A true surplus occurs when pasture growth is in excess of the herd pasture requirements. A true surplus can be identified when the herd is:

- Leaving more than the desired residual of 4–6cm,
- Leaving bigger clumps, and
- Wasting pasture i.e. the herd is being offered more than is being eaten

Identifying the surplus early is critical to managing the quality of pastures through the spring.

Managing the surplus

If pasture wastage is observed, consider the following actions.

- Reduce supplementary feeding levels to increase pasture intake. Savings in feeding need to be considered alongside any changes to milk production (solids not litres).
- Reduce the area allocated to the herd on a daily basis, while maintaining the rotation length to keep the grazing pressure and pasture residuals constant, and take paddocks out of the rotation to conserve the 'true' pasture surplus for fodder.

Banking paddocks – how many and which ones?

A simple strategy to determine how many paddocks to bank 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 bank 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.



Tips on managing paddocks for conservation

- If a paddock is higher than ideal pre-grazing cover, conserve ASAP
- Give priority to paddocks with higher proportion of stems and leaves.
- Ideally don't cut the same paddock twice.
- Avoid newly sown perennial ryegrass paddocks.
- Cut no more than 6 weeks from the date of the last grazing – leaving longer will cause loss of tiller density, reduced regrowth and reduced persistence.
- Cutting earlier – at canopy closure or 2½–3 leaf stage – will reduce the silage yield, but the silage quality will be better, regrowth quicker and tillering improved.
- Keep closure period short to achieve higher quality silage. As ryegrass plants become reproductive and the proportion of stem to leaf increases the energy and protein levels will decline.
- As soon as the paddock is cut it should be considered to be 'grazed' and added back to the grazing area. In some cases silage regrowth paddocks will require an additional 4–7 days than grazed paddocks.
- Avoid having large areas 'recovering' from the fodder conservation program and becoming ready to graze again at one time as this can be difficult to manage.

Conserving as much high-quality forage as possible

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

At some stage the growth rate will slow and the cows will be able to eat all the pasture that you offer to them. At this stage return to the rotation using the whole farm grazing area. Top any low quality pastures, and potentially use nitrogen to boost the growth of the pasture that is still growing.



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

For further information on silage making, refer to the Quality pasture silage – Five easy steps booklet at dairyaustralia.com.au/feedshortage.