TechNote 26

Allocate autumn pastures correctly

IN THIS TECHNOTE

Key principles of pasture management during the late-lactation, autumn months are consistent with other times of the year. The key aim during this period is to continue feeding cows well, while setting up the farm to achieve average pasture cover (APC) targets for calving.

For more details see TechNotes 9: Pasture management; 17: Allocate spring pasture correctly and 22: Manage summer pastures correctly.

26.1 Meet pasture targets in autumn

The key aspects of pasture management during autumn are to ensure pastures have time to recover from any over-grazing events that happened during summer, and to devise a plan to ensure APC targets at calving are met.

If it has been a hot, dry summer, pasture leaf emergence and growth rate will increase immediately following the autumn rains, (if temperature remains mild), however, it is important not to speed up or over allocate pasture during this period.

Autumn is a key tillering period in perennial ryegrass pastures, and when managed well, pastures can recover density during the autumn period. During autumn, set rotation length so pastures are not grazed before the 3-leaf stage and continue the focus on achieving target residuals 3.5 – 4.0 cm (compressed height; Figure 1). Frequent intense grazing before plants reach the 2-leaf stage will not only reduce pasture growth but will reduce the recovery of tiller numbers during autumn.

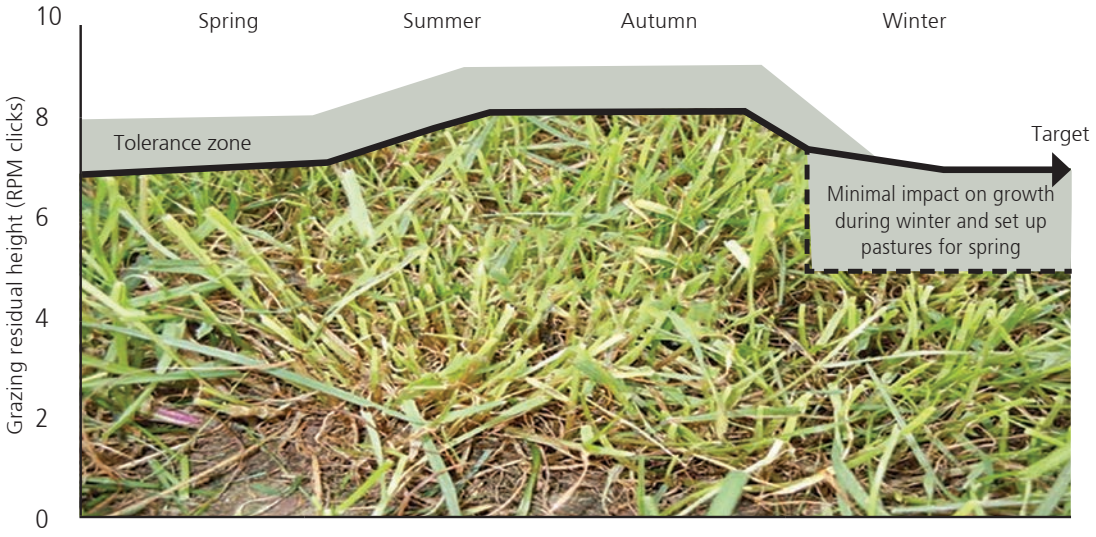
As winter approaches, the ambient temperatures decrease, and leaf emergence rate will slow down. Pasture is said to have a "longer shelf life" in autumn, referring to its ability to maintain quality longer in the cooler months.

Determine what the leaf emergence rates are for your farm, and then use this information, in conjunction with other indicators (APC, pre-graze covers and post-graze residuals) to determine the appropriate rotation length during this period. This will ensure you are maximising pasture growth and increasing pasture covers if needed heading into winter.

For more details see TechNotes 9: Pasture management; and 17: Allocate spring pasture correctly.

A feed budget will help identify pasture cover targets and aid management decisions to achieve these

Figure 1. Target post-grazing residual (compressed height) throughout the season (McCarthy et al, 2015).



1cm = 2 clicks clicks x 140 + 500 = kg DM/ha

RPM = rising plate meter

cm	clicks	kg DM/ha
3	6	1340
4	8	1620
5	10	1900

26.2 Achieve average pasture cover (APC) targets at dry-off

A key objective of grazing management during late autumn is to transfer autumn/winter grown pasture into late winter/early spring, to achieve target APC at calving.

This can be achieved by lengthening the rotation in autumn and continuing to lengthen it through to the start of calving.

Maintaining these longer rounds will ensure pastures are grazed close to the 3-leaf stage, maximising pasture yield and building pasture cover for the winter months when pasture growth rates are very low and sometimes zero.

The aim of building covers into winter and through to calving is to transfer pasture from a period of relatively low feed demand (winter, dry cows) to a period of high feed demand (early spring, lactating cows) to better balance feed supply with herd requirements.

Q: What leaf stage do I graze at during Autumn?

A: Although general recommendations are to graze at, or just before, the 3-leaf stage, sometimes bending the rules (grazing after the 3-leaf stage) will help build up pasture covers coming into winter.

26.3 Further reading

Chapman, D., S. McCarthy, and C. Wims. 2014. Maximising leaf availability using pasture growth principles. DairyNZ Technical Series August 2014. 23: 1 – 4.

DairyNZ Facts and Figures. dairynz.co.nz/publications/dairy-industry/facts-and figures/

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MacDonald, K. 2016. DairyNZ's post-grazing residual project – what it tells us about pasture management. DairyNZ Technical Series September 2016. 31: 5 – 9.

McCarthy, S., C. Wims, J. Lee, and D. Donaghy. 2015. Perennial ryegrass grazing management in spring – paddock guide www.dairynz.co.nz/publications/feed/

Lee, J., P. Hedley, and J. Roche. 2011. Grazing management guidelines for optimal pasture growth and quality. DairyNZ Technical Series September 2011 5: 6 - 10.

Roche, J. R., L. R. Turner, J.M. Lee, D. C. Edmeades, D. J. Donaghy, K.A. Macdonald, J. W. Penno, and D. P. Berry. 2009. Weather, herbage quality and milk production in pastoral systems. 2. Temporal patterns and intrarelationships in herbage quality and mineral concentration parameters. Animal Production Science. 49: 200 – 210.