



FACT SHEET

MAY 2021

WINTER FORAGE CROPS: MANAGEMENT DURING GRAZING

This fact sheet focuses on good management practices. For the most up to date regulation information, please visit our website: beeflambnz.com.

When grazing winter forage crops to maintain or improve stock condition, it is important to keep animals comfortable and healthy. Winter grazing has high stock numbers in a confined area and is a relatively intensive land use. This may lead to increases in surface runoff which can carry increased loads of sediment, nutrients and micro-organisms. It is essential to consider how to reduce nutrient and contaminant losses to streams and waterways as well as minimising damage to soils and paddocks.

Key points for grazing

- Create a winter grazing plan with your farm team and implement it over winter.
- Ensure stock have adequate feed, shelter and access to loafing areas and are appropriately transitioned to the crop.
- For sheep and cattle, use long narrow breaks with long faces that are moved more frequently.
- Graze in a strategic direction within a paddock to maintain as big a buffer as possible between the stock and waterbodies or CSA's.
- Keep stock out of critical source areas in paddocks such as gullies and swales.
- Have a plan for adverse or bad weather events so that stock can be moved to minimise environmental damage and seek adequate shelter if necessary.

Research findings

Research undertaken by AgResearch in South Otago, as part of the Pastoral 21 Programme, found that implementing good crop grazing management, as detailed in this factsheet, resulted in:

- Reduced phosphorus and sediment losses by 80-90%.
- Reduced soil compaction and pugging in susceptible parts of paddocks, leading to a reduction in surface runoff.

The estimated cost of lost topsoil and nutrients from winter grazing may be up to \$50-\$60/ha per year.

Crop allocation and additional supplement

- Beef + Lamb New Zealand's FeedSmart tool can help determine feed requirements and help plan grazing.
- Make a feed management plan that considers the nutritional needs of the grazing animals to achieve the required weight gains or condition scores. Consider the dry matter content, nutrient composition and metabolisable energy in different feeds.
- A gradual transition to crops is important to ensure good animal health and allows the gut time to adjust to the new feed. This may take 7-10 days for brassicas and up to three weeks for fodder beet. Seek advice from a vet or other professional for the appropriate grazing transition.

Grazing management

- For sheep and cattle, use long narrow breaks with long faces that are moved more frequently (as shown in figure 1).
- Make sure that you consider stock access to drinking water, loafing areas and adequate shelter.
- Where practical, offer fresh, untrampled feed, move the fence once or twice a day rather than offering a few days feed at a time.
- Fence off a narrow strip along the length of the paddock to access gateways as this will stop stock remobilising sediment and nutrients over a whole paddock.
- Use a catch fence in front of the feeding face to minimise the impact if stock break out.
- If offering other supplements such as hay, silage or baleage, use feeders where possible to reduce the amount of waste.

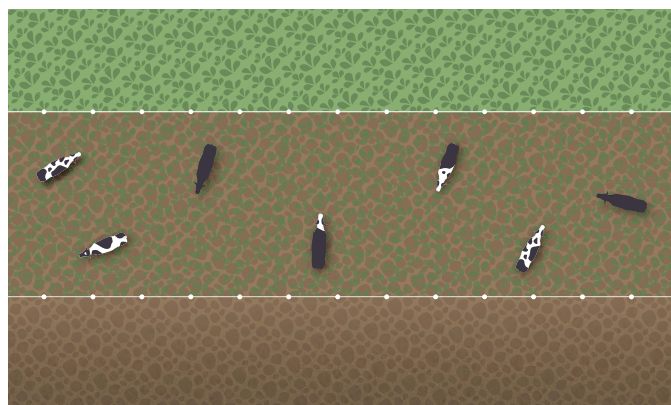


Figure 1: Diagram showing long, narrow breaks compared to short, wide breaks. For sheep and cattle, use long narrow breaks with long faces that are moved more frequently.



Figure 2: Sheep on winter crop.

Protecting soil and waterways

Critical source areas

- Critical source areas are vulnerable areas in a paddock or on a farm that can contribute to relatively large amounts of nutrient and sediment losses to waterways (figure 3). They are often wet areas such as gullies and swales.



Figure 3: An example of a well-protected critical source area. The area around the small ponding area is the critical source area and should be fenced off, including a buffer zone of at least 5 meters. Check your regional council for local regulations.

Good management practice

- Create a grazing management plan that will reduce environmental losses by following strategic grazing principles and good management.
- Start planning before the crop is sown to select paddocks that are appropriate and suitable for winter forage crop grazing with considerations of proximity to waterways, soil type, slope and critical source areas.
- For sheep and cattle, use long narrow breaks with long faces that are moved more frequently.
- Make sure stock have adequate feed as underfed stock wandering in search of feed can add to potential soil losses through physical damage and sediment entering waterways.
- Reduce the amount of time heavy machinery is used on a paddock once it is wet to reduce soil damage. If baleage is being used, place in the paddock before grazing if possible.
- Have a plan for collection and recycling of baleage wrap.

Strategic grazing

- Keep livestock out of critical source areas, waterways and wet areas of a paddock by temporary or permanent fencing.
- Where practical, begin grazing paddocks at the point furthest from the waterway to keep the crop as a buffer area between animals and waterways or critical source areas.
- Break fences should be fenced across the slope with grazing starting at the top of a slope. The breaks should move in a downhill direction (figure 4).
- It is recommended that a buffer of at least five metres width should be maintained near waterways with larger buffers providing more protection on sloping land. Check regional and national regulations for minimum buffer widths around waterways in your area.
- Where possible, leave critical source areas uncultivated and ungrazed with pasture cover left intact. If the critical source area is cropped, only graze lightly and when soil conditions are suitably dry to prevent pugging and soil damage.
- Regularly backfence stock off land that has already been grazed.

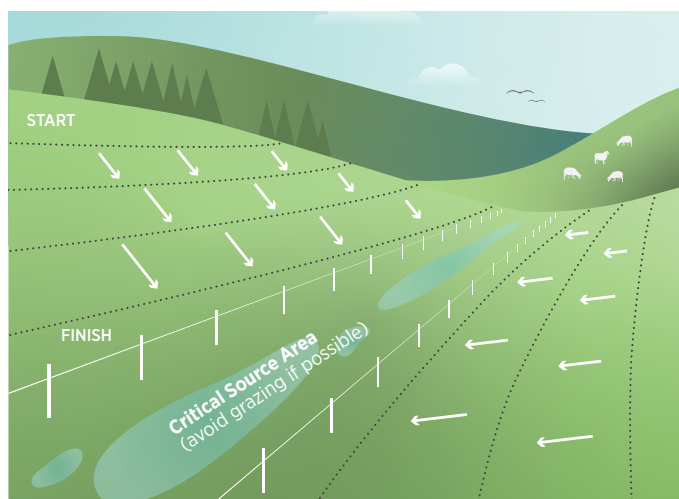


Figure 4. Strategic winter grazing to minimise environmental losses. Start grazing at the top of a slope and move breaks downhill. The gully at the bottom of this paddock is a critical source area that is dry in summer but gets wet in winter and after heavy rain. Leave CSAs uncultivated and ungrazed with pasture cover left intact. If the CSA is cropped, only graze lightly and when soil conditions are suitably dry to prevent pugging and soil damage.

Additional information and acknowledgements

Beef + Lamb New Zealand would like to acknowledge AgResearch Ltd for their assistance with this fact sheet, which documents some of the findings made in the Pastoral21 research programme.

Go to beeflambnz.com/wintergrazing for all winter grazing related resources.

www.feedsmart.co.nz – app to calculate feed requirements for animals, allowing you to calculate pasture/crop usage when moving animals to paddocks.

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