

Intensive Winter Grazing – Grazing Management

Standard Operating Procedure

Purpose

To manage the risk of environmental damage from Intensive Winter Grazing activities, as defined by the Resource Management National Environmental Standards for Freshwater Regulations 2020 (NES).

To minimise damage to soils during grazing of winter crops, whilst maximising feed utilisation; and to provide an auditable document for annual compliance. Even in a well-managed winter grazing programme there is always some risk of impacts on sidlings and ephemeral flow paths (EFPs).

Scope

This process is recommended by Perrin Ag for all farmers undertaking fodder crop activities, where grazing occurs between 1 May and 30 September in any given year. It is required from May 2022 until further notice.

Procedure

1. Work already completed before crop planting

- 1.1. SOP for Intensive Winter Grazing - Paddock Selection will have been followed for the allocation and set-up of winter forage crop paddocks.
- 1.2. The paddocks will have been set up to prevent animal access to steeper sidlings, major ephemeral flow paths (EFP), allowing the most appropriate land in each selected paddock to be cropped.
- 1.3. Retirement of non-cropped areas with temporary electric fences will have been undertaken before crop planting. These fences will remain until the crop has been finished.
- 1.4. Supplementary water troughs will have been installed to ensure adequate access to water.
- 1.5. Ensure gateways and silage pits have sufficiently firm surfaces to prevent damage from tractor access.

2. Feed allocation

- 2.1. Approximately two to four weeks prior to the planned start of grazing, crop yield calculations should be carried out for each paddock to enable an accurate feed budget for the crop area can be completed.
- 2.2. Take into account variability of crop yield across the paddock and planned supplementary silage, pre-set your breaks.

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- 2.3. Either digitally or in hard copy access the paddock maps created while following the SOP Management for Intensive Winter Grazing. Label clearly, such as - [Farm Name]-[Yr-Yr]-Pdk[xxx]-[Crop]
- 2.4. Agreed lines for back fences should be clearly marked on the map see Appendix 3 in SOP Intensive Winter Grazing - Paddock Selection.
- 2.5. It would be advisable to access MetService advice on updated winter climatic conditions and use this to inform your grazing plan as well.

3. Grazing plan

- 3.1. Any team involved with break feeding the fodder crop – silage and/or break shifts – must be provided with a copy of this SOP and inducted by the manager or team member in charge of this activity. Explanation of benefits and reasons for the SOP will be discussed and team able to ask questions and fully engage in the process. The importance of compliance with the RMA and risks to the farm of failure should be made clear.
- 3.2. A laminated grazing plan will be made available to all team involved in feeding the fodder crop, preferably with one paddock per page. Once grazing is due to start, where possible there should always be three breaks set up in front of the stock:
 - 3.2.1.1. The one the stock are grazing behind (current day)
 - 3.2.1.2. The following day's break (next day)
 - 3.2.1.3. The one after that (back break). This is useful as a back-stop and also gives the team member in charge of the breaks the opportunity to ensure that the breaks are in the correct place before they are moved.
- 3.3. A time of day for the shift to be carried out will also be agreed. This prevents stock getting hungry due to a late shift and walking fences, or breaking through tapes. Take into account that it may not be desirable for stock to be shifted too early where there are heavy frosts.
- 3.4. Locations for supplementary feed will also be discussed and identified. Supplementary feed will not be fed in any other areas without prior consent from the manager.
- 3.5. It would be advisable for the manager to schedule weekly reviews of the forage crop to ensure that any issues are dealt with as, or before they arise, for example:
 - 3.5.1.1. Stock walking breaks or fence lines, looking for feed or shelter – re-evaluate grazing break size or placings;
 - 3.5.1.2. Excess pugging around water troughs – bring in fill to ensure animals have easy access to water;

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- 3.5.1.3. Overland soil movement into any un-excluded EFPs – this should be excluded from stock immediately. Consider placing hay or straw bales in the flow path.
- 3.6. As stock finish grazing a 'block' within the paddock, the back fences should be installed, ensuring access to water troughs but reducing stock repeatedly walking across bare, grazed ground. Always ensure that stock have a higher, dry area to camp on if paddock or weather conditions make the ground too wet.
- 3.7. If a heavy or long-duration rainfall event occurs or is forecast, best endeavours should be made to either:
 - 3.7.1.1. Move the stock to a close grass paddock until the ground dries out,
 - 3.7.1.2. Choose a break that is less affected by the weather,
 - 3.7.1.3. Halve the size of the break and move the tape twice daily to reduce the pugging intensity.
- 3.8. If areas of the grazed paddock show signs of pugging damage (over 5cm deep), immediately remove stock from this area by back-fencing. If necessary, a temporary trough may need to be installed or moved to allow this to happen. The maximum pugging depth permissible is 20cm. Less than 5cm is not defined as 'pugging' under the NES.
- 3.9. Once grazing of the crop has occurred, the temporary electric fences and temporary water troughs may be removed.
- 3.10. Each day team to check water troughs are clean, full and working. It is equally important that troughs are working (pumice in ball-cocks can be a problem on crops) so stock have water but also water is not leaking and causing pugging and/or bare soil to be washed away.
- 3.11. Once the crop has been re-established as grass, the set aside areas can be grazed with animals appropriate to the slope and weather conditions, i.e. if it is a wet spring younger cattle or sheep should be used not mature cows.

4. Compliance

- 4.1. All team to be inducted every season as per 3.1 to 3.9 above, and this process recorded on appendix 1, of the reporting form which is attached to this document.
- 4.2. Save GIS maps or screen shots of each paddock, if a digital copy is required to be stored, it should have been saved under [Farm Name]-[Yr-Yr]-Pdk[xxx]-[Crop]. Maps will show:
 - 4.2.1 Exclusion zones which have not been cropped and are not to be grazed during the time the crop is being fed.

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- 4.2.2. The 'blocks' of grazing within a paddock and, if relevant, the daily stock shifts, identified as in SOP Intensive Winter Grazing - Paddock Selection.
- 4.2.2 The grazing direction within each block – i.e. which direction the stock will be fed the crop. This should be:
 - 4.2.1.1. Down the slope; and
 - 4.2.1.2. Across the slope.
 - 4.2.1.3. Taking into account shelter from wind/weather where possible.
- 4.3. Print these maps out, laminate and to provide to team. They should be of sufficient scale that the team are easily able to read and interpret them.
- 4.4. Use the check list in the following form to ensure all necessary activities are carried out and weekly paddock assessments undertaken.
- 4.5. Photos should be taken to show good management practices throughout the grazing period:
 - 4.5.1.1. Pre-grazing
 - 4.5.1.2. Weekly on the same day during cropping
 - 4.5.1.3. After heavy rainfall events
 - 4.5.1.4. Post-grazing, with buffers intact
 - 4.5.1.5. Post-grazing with any buffers grazed

These photos can be used for demonstrating compliance with this SOP and Best Management Practice. They may also identify areas where on-farm practices can be improved in this area.
- 4.6. Optional - provide plans to Perrin Ag for review.

SOP control information

All SOPs should be reviewed annually

Version	Date	Author	Change/review type
1.1	02 September 2020	Perrin Ag Consultants	Created
1.2	14 September 2020	Perrin Ag Consultants	Amended
1.3	31 August 2021	Perrin Ag Consultants	Amended

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Further resources are attached

- Appendix 1 - Team induction plan
- Appendix 2 – Grazing plan checklist
- Appendix 3 – Paddock monitoring plans, weeks 1 to 9 (3 pages)

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Appendix 1 - Team induction plan

Manager					Signed		
Season							
Name	Induction date	Map received	Responsibility for (tapes/silage)	Daily time of shifts	Understand how to check water troughs	Signed	Date

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Appendix 2 – Grazing plan checklist

Manager			Signed
Action	Date	Signed	Comments
Grazing plan created and saved			
Paddock name/number:			
Paddock name/number:			
Paddock name/number:			
Paddock name/number:			
Paddock name/number:			
Paddock name/number:			
Paddock name/number:			
Breaks marked in paddocks (opt)			
Water access checked pre-grazing			
Laminated grazing plans ready			
Team inducted for season			
Excessively wet weather plan			
Conditions for grazing excluded areas agreed with team			

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Appendix 3a - Paddock monitoring plan – weeks 1 to 3

Manager							Signed
Paddock name/number							Comments
Week 1	Pugging						
	Water troughs						
	EFP (Ephemeral flow paths)						
	Other						
Week 2	Pugging						
	Water troughs						
	EFP						
	Other						
Week 3	Pugging						
	Water troughs						
	EFP						
	Other						

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Appendix 3b - Paddock monitoring plan – weeks 4 to 6

Manager						Signed
Paddock name/number						Comments
Week 4 Pugging						
Water troughs						
EFP						
Other						
Week 5 Pugging						
Water troughs						
EFP						
Other						
Week 6 Pugging						
Water troughs						
EFP						
Other						

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Appendix 3c - Paddock monitoring plan - weeks 7 to 9

Manager							Signed
Paddock name/number							Comments
Week 7	Pugging						
	Water troughs						
	EFP						
	Other						
Week 8	Pugging						
	Water troughs						
	EFP						
	Other						
Week 9	Pugging						
	Water troughs						
	EFP						
	Other						