

Contemporary Grazing Management

Guiding Principles for Effective Grazing Planning

1. Effective Grazing Planning needs to be conducted in a Holistic Context™, utilising the Holistic Decision making framework, and in a Planned way.
2. A clear and detailed written and/or mapped description of the Future Landscape that is being created should precede Grazing Planning.
This should be contained in the Holistic Context™ but may need additional detail.
3. Effective Grazing Planning must primarily focus on planning perennial grass recovery periods, making sure they are sufficient to ensure full plant recovery. Be conservative in estimating this.
Perennial grass plants are fully recovered when they contain fresh yellow coloured litter on their lower leaves. Check this is occurring.
4. A ground cover target of 100% (made up of fresh or decomposing litter and/or perennial grass plant base) is the minimum for southern Australia.
Grazing should be conducted in a way that leaves ample litter behind after each grazing event to cover and protect the soil surface.
5. Daily monitoring of gut fill and dung scores needs to occur, to ensure good levels of animal performance.
Effective Grazing Planning creates continually improving animal health. Check your animals.
6. Annual monitoring should show an increasing number, density and diversity of Perennial Grasses and increasing decomposing litter each year.
7. Annual operating costs should be stable or declining, check this is occurring.
8. Effective Grazing Planning should be enjoyable and rewarding for the people, check this is the case.
9. Animal numbers must be adjusted to take into account feed conditions for the planning period ahead after taking into account likely plant growth conditions.
Flexible approach to stock numbers is fundamental, there are times when stocking rates may need to increase, and times when they may need to decrease. Having enterprises which allows this to occur, while maintaining profitability, underpins Holistic Wealth Creation.

If you are able to focus on these principles, your land will be regenerating while your profit and enjoyment are improving.

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Planned Grazing™ Recovery Summary



Setting up the planning recovery worksheet

1. Complete paddock number/name
2. Complete paddock areas
3. Complete paddock rating – average, good & poor based on your knowledge of each paddocks carrying capacity

Calculating average paddock size and average grazing days

1. Estimate best perennial grass recovery for your area based on trial area results.
2. Recovery needs to be long enough for best perennial grasses to have fully recovered and to link up growth events – rainfalls and temperatures
3. Usual range is between 120 days/ 4 months(e.g. Otway's) – 540 days/ 18 months(e.g. Cobar)
4. Calculate average paddock size
5. Average Paddock size = total area/number of paddocks.
6. Include figure at top of worksheet
7. Calculate average grazing days
8. Average Grazing days = recovery period ÷ (number of paddocks-1)
9. Include figure at top of worksheet

Estimating Grazing Days

1. Determine if first paddock is larger or smaller than average.
2. Determine if first paddock is better or worse than average
3. Using this information estimate grazing days for the first paddock
4. For example if paddock is average size and has average paddock rating then it will average grazing days
5. If paddock is average size but has poor paddock rating it may only have 80% of the average grazing days – use your knowledge of the paddocks
6. Complete for all paddocks

Adapted by Graeme Hand for Southern Australia, February, 2013

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Planned Grazing™ Recovery Planning Worksheet



Planned recovery _____ days

Average grazing period* _____ days

Average Paddock size _____ ha

Grazing Area Name and Date:

Paddock number	Paddock name	Area ha	Paddock Rating	Grazing Days
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
	Totals			

**Average Grazing period = recovery period ÷ (number of paddocks-1)*

Setting up and using the grazing/ recovery chart

Growing Season Plan

1. Opening Decisions – Look at the seasonal big picture
2. Set Up the Grazing Chart – transfer grazing days from recovery planning worksheet
3. Record Management Concerns Affecting all paddocks
4. Record Livestock Exclusion Periods
5. Check for Unfavorable Grazing Patterns from previous charts
6. Note special management needs
7. Check for overgrazing in longer grazed paddocks
8. Plan the animal moves (backwards from critical times)
9. Operating & monitoring the plan
10. Keeping the record

Non- Growing Season & Drought Plan*

1. Opening Decisions – Look at the seasonal big picture
2. Set Up the Grazing Chart
3. Record Management Concerns Affecting all paddocks
4. Record Livestock Exclusion Periods
5. Note special management needs
6. Assess Carrying Capacity, and Drought Reserve
7. Check for overgrazing in longer grazed paddocks
8. Plan the animal moves (backwards from critical times)
9. Operating & monitoring the plan
10. Keeping the record

*Plants will be growing very slowly or dormant

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Biological & Landscape Function Monitoring sheet

Dying	At risk	Recovering	Regenerating
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Paddock ID:

Treatment:

PHOTOS:

DATE:

	What the dart hit (tick one)					Soil Surface 15cm around the dart (tick one)		Evidence of change (Complete all)			Nearest perennial grass (complete all)		Age Nearest Perennial (tick one)				Observations
Throw number	Bare Soil	Litter No Decomp	Litter Slight Decomp	Litter Moderate Decomp	Perennial Grass Base	Capped soil surface	Covered	Annuals present	Soil Movement	Evidence of other animals, insects etc	Name of nearest perennial grass	Distance to nearest perennial grass (cm)	Seedling	Young	Mature	Dying	
1																	Species observed, oxidising litter in perennial grass, woody increasing, annuals/ forbs increasing etc. Photos of litter in perennial bases, Estimated overall litter class
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
Totals	0	0	0	0	0	0	0	0	0	0	Average (cm)	0	0	0	0	0	

Adapted from Allan Savory's Work and LFA for Southern Australia by Graeme Hand © SAVORY INSTITUTE 2012

Land Monitoring and Corrective Action Form

Date _____

Site	Variation to Landscape Goal	Possible Cause of Variation	Possible Corrective Action	Who/When
	Bare ground between grass plants – no raw litter present	<ol style="list-style-type: none"> 1. Litter not produced as recoveries too short 2. Animals picking up litter as stocking rate too high 	<ol style="list-style-type: none"> 1. Check increasing recovery between grazing – check trial area 2. Watch animals to confirm then reduce stocking rate 	
	Raw litter present but not composting/ decomposing	Litter not in contact with soil	Check increasing animal impact – confirm in trail area	
	Perennial grass spacing increasing/ clumpier	Perennial grass dying from recovery too short	Check increasing recovery – confirm in trial area	
	Seedlings not present	<ol style="list-style-type: none"> 1. Lack of animal impact/ disturbance to initiate germination 2. Lack of recovery 	<ol style="list-style-type: none"> 1. Check increasing animal impact through a smaller paddock or changing animal behaviour 2. Check if seedlings present before grazing again. If present and not establishing increase recovery 	
	Grey oxidising grass noted as increasing	<ol style="list-style-type: none"> 1. Perennial grass litter not cycling 2. Paddock too large to allow even grazing 	<ol style="list-style-type: none"> 1. Check increasing animal impact/ density – confirm trial area 2. Check if smaller paddocks increasing in woody plants – confirm trial area 	
	Woody plants noted as increasing	<ol style="list-style-type: none"> 1. Perennial grass dying from underuse 2. Paddock too large to allow even grazing 	<ol style="list-style-type: none"> 1. Check increasing animal impact/ density– confirm trial area 2. Check if a smaller paddocks stops woody seedlings germinating– confirm trial area 	

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Planned Grazing™ Daily Checklist

Date/ Paddock No/ Name							
Tanks & Dams							
Trough & Fittings							
Recovery Scale score							
Gut fill (what % 3 score or below)							
Dung Score Average							
Contentment score Average							
Electric fence (kV)							
Animals moved							
Grazing chart updated - corrective action							






	Contentment Score							
	1	2	3	4	5			
Comments:	Standing, Yelling & most agitated	Standing, no cud chewing, moderately agitated	Standing, 50% chewing cud, bright	Some sitting, chewing cud bright & relaxed	Majority sitting, chewing cud bright & relaxed			
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Perennial Grass Recovery Scale[©]





Graeme Hand

Score 1		<p>Perennial grasses have tips chewed off. Sometimes yellowish green colour No fresh yellow litter Excess non protein nitrogen – low dung scores Metabolic diseases can be a problem Seasonal germination of annual forbs Pasture requires resowing every few years Very poor landscape function</p>
Score 2		<p>Some perennial grasses have tips chewed off Sometimes good green colour No fresh yellow litter (2½ to 3 leaf grazing - dairy grazing) Excess non protein nitrogen – low dung scores Metabolic diseases can be a problem Seasonal germination of annual forbs Pasture requires resowing every few years Poor landscape function and low perennial diversity</p>
Score 3		<p>All tips of perennial grasses replaced Good green colour Small amount of fresh yellow litter – not enough to cover the ground 100% Better balance of protein and energy – good dung scores Metabolic diseases not a problem Very few annual forbs/ weeds Pasture does not require resowing Produces moderate landscape function and building perennial diversity</p>
Score 4		<p>All tips of perennial grasses replaced Good green colour Reasonable amount of fresh yellow litter will cover the ground 100% Better balance of protein and energy – good dung scores Metabolic diseases not a problem No annual forbs/ weeds Pasture does not require resowing Produces good landscape function and building perennial diversity</p>
Score 5		<p>All tips of perennial grasses replaced Good green colour Large amount of fresh yellow litter - will build litter bank Better balance of protein and energy – generally good dung scores (high dung scores possible therefore close monitoring and adjustment required) Metabolic diseases not a problem No annual forbs/ weeds (at low stock density woody types may increase) Pasture does not require resowing Produces excellent landscape function and building perennial diversity</p>






Planned Grazing™ Gut fill Scoring

SCORE 1		The animal's left-hand side is deeply sunken between the hip bone and the ribs. The animal has eaten little or nothing, which could be due to sudden illness, insufficient feed or a mismatch between rumen flora and feed available.
SCORE 2		The animal's left-hand side is deeply sunken between the hip bone and the ribs. This is a sign of insufficient food intake, or a rate of passage that is too high.
SCORE 3		The animal's left-hand side is slightly sunken between the hip bone and the ribs. This is the lowest score for animals on well recovered grass. Generally when a portion of the mob is at score 3 it is time to move to the next paddock.
SCORE 4		The animal's left-hand side is not sunken between the hip bone and the ribs. This is the correct score for a portion of the mob on well recovered grass. Animals will generally be maintaining or increasing in condition.
SCORE 5		The animal's left-hand side is proud or convex between the hip bone and the ribs. This is the correct score for animals on well recovered grass and show a good match between rumen condition and food available. Animals will generally be increasing in condition.

Cattle Dung Scoring

SCORE 1		Watery - This dung is very liquid with a consistency between water and pea soup. Dirty rumps are seen. The dung may actually “arc” from the rump of the cow. Excess protein or starch, or lack of fibre, can lead to this score. With planned grazing the usual cause is grass plants that are very young and not recovered. Animals are at high risk of metabolic diseases. As the animals are using energy to process excess non protein nitrogen they are at risk of rapidly losing condition and having associated health problems.
SCORE 2		Custard-like - Dung appears runny and does not form a distinct pile. Dirty rumps are seen. Dung will measure less than 2.5 cm in height and will splatter when it hits the ground or concrete. With planned grazing the usual cause is grass plants that are young and not recovered. Animals are at risk of metabolic diseases and using energy to process excess non protein nitrogen
SCORE 3		Pie-like - This is the optimal score! The dung has a porridge-like appearance, will stack up 4 to 5 cm, will appear like a pie with a small depression or dimple in the middle. The dung make a plopping sound when it hits the ground and animals will have clean rumps. With planned grazing this indicates a good match between the grass being selected and rumen conditions. Animals are at low risk of metabolic diseases and health is generally good.
SCORE 4		Firm - The dung is thicker and stacks up over 5 cm. With planned grazing this indicates that grass being selected is lower in protein and energy, and higher in fibre than is optimal for current rumen conditions. Usually seen when putting animals onto older feed. Animal performance may be lower until the rumen adjusts or younger grass is provided.
SCORE 5		Biscuit-like - This dung appears as a firm biscuit-like stack. With planned grazing this generally indicates that grass being selected is low in protein and energy and high in fibre. Usually seen when putting animals onto very old feed or leaving them to “clean up” plant material that would be best trampled onto the soil surface. Animal performance is usually low. Dehydration would contribute to this score. Cows with a digestive blockage may exhibit this score. Animals are at risk of rapidly losing condition and having associated health problems.

Sheep Dung Scoring

SCORE 1		Pea Soup - This dung is very liquid with the consistency between water and pea soup. The dung may actually “arc” from the rump of the sheep. Excess protein or starch, or lack of fibre, can lead to this score. With planned grazing the usual cause is grass plants that are very young and not recovered. Animals are at high risk of metabolic diseases. As the animals are using energy to process excess non protein nitrogen they are at risk of rapidly losing condition and having associated health problems.
SCORE 2		Paste - Dung appears as a paste with no evidence of pellets. Dirty rumps are seen. Dung will measure less than 2.5 cm in height and splatters when it hits the ground or concrete. With planned grazing the usual cause is grass plants that are young and not recovered. Animals are at risk of metabolic diseases and using energy to process excess non protein nitrogen.
SCORE 3		Cone of loose pellets - The dung ranges from a cone-like appearance with soft deformed pellets to soft pellets sometimes in a pile. Rump is clean. With planned grazing this indicates a good match between the grass being selected and rumen conditions. Animals are at low risk of metabolic diseases and health is generally good.
SCORE 4		Firm pellets - The dung appears as individual firm pellets. Rumps are clean. With planned grazing this indicates that grass being selected is lower in protein and energy and higher in fibre than optimal for current rumen conditions. Usually seen when putting animals onto older feed. Animal performance may be lower until the rumen adjusts or younger grass provided.
SCORE 5		Very firm pellets - This dung appears as very firm pellets. With planned grazing this generally indicates that grass being selected is low in protein and energy and high in fibre. Usually seen when putting animals onto very old feed or leaving them to “clean up” plant material that would be best trampled onto the soil surface. Animal performance usually low. Dehydration would contribute to this score. Animals at risk of rapidly losing condition and associated health problems.