Guide to planned grazing
Welcome!

This guide is for farmers who wish to trial Holistic Management® Planned Grazing, commonly referred to as ‘planned grazing’.

Planned grazing is a structured way of using animals to regenerate pasture and grassland, and to improve soil health and grazing profitability. The idea is to put lots of animals into a small area for a short time (as little as a few hours), then remove them and let the area recover (which can take from several months to over a year) before returning the animals again.

To begin a trial you will need a small area of your property to graze (less than 0.5 ha), a mob of animals (approx 500 sheep – with the aim of getting stockyard density), and some time to keep records and monitor the progress.

A trial in a small area will help you to identify how planned grazing can work on your property as a whole to regenerate your pasture/grassland and improve soil health by increasing the cover and diversity of perennial grasses.

Typically you will return stock to graze the trial area every 6 to 12 months, but you will need to monitor the area to work out how long it takes the perennial grasses to recover. Trialling, planning and monitoring are key steps in the process.

Planned grazing has the potential to significantly reduce costs while improving the land’s ability to respond to seasonal and climate changes; international and mainland trials show that it can be extremely effective. NRM South is currently trialling the technique in southern Tasmania.

This manual is intended to guide your skill development and will help you to get started on planned grazing. It is not a substitute for training.

Please note that we cannot guarantee that this method will work in every situation, and so we recommend that you seek advice prior to commencing.

Using this manual

This guide is divided into two parts:

**Part One** is for landowners who have heard about planned grazing and want to give it a try. It shows how to conduct a trial so you can see how the method works on your land.

**Part Two** is for people who have trialled planned grazing and want some monitoring tools to help them to refine it for their property. It focuses on the planning and monitoring elements of planned grazing. It will help you to use the skills you learned in your small-scale trial on a larger scale using a planning tool, to establish a monitoring routine to track perennial grass recovery and animal performance, and to fine tune your planned grazing techniques.
### PART ONE: SMALL SIZED GRAZING TRIAL

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**Why do we focus on perennial grasses?**

As perennial grasses can survive throughout the year they provide a continuous ground cover which protects your soil from capping, erosion and weed incursion. Some common perennial grasses in Tasmanian pastures are the native wallaby grasses (*Austrodanthonia spp.*), kangaroo grass (*Themeda triandra*), weeping grass (*Microlaena stipoides*), and the introduced cocksfoot (*Dactylis glomerata*), perennial rye grass (*Lolium multiflorum*) and phalaris (*Phalaris aquatica*).1

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1. See *Common grasses of Tasmania: An agriculturalist’s guide* by Peter Lane, Dennis Morris and Gillian Shannon for identification.

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**ACKNOWLEDGEMENTS**

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How does planned grazing work?

The action of animal’s feet at high stocking densities massages the top layer of the soil, which increases soil-to-seed contact and water infiltration, and also presses plant litter and animal dung into the soil, adding food for soil organisms that in turn provide nutrients for the pasture grasses. In other words, you are using the stock to create the conditions that pasture grasses need to germinate and grow.

By resting the pasture after grazing you enable the newly-germinated grass seedlings to establish and become litter-producing adult plants. The aim of planned grazing is to reach productions levels similar to those achieved with conventional pasture maintenance methods, but without the need for expensive activities such as re-sowing and fertiliser addition. An additional benefit is that planned grazing can improve land function and biodiversity.

Land function is the ability of land to resist erosion, infiltrate water and cycle nutrients. The key is to have the soil surface covered with perennial grasses or litter that is decomposing or composting.

Biodiversity is the number and variety of all above- and below-ground life. Grasslands with high biodiversity are more productive, so management practices that increase the number and variety of species in pasture are good for business. An essential component of the biodiversity in pastures is below ground – those organisms that break down organic matter and build soils, fuelled by litter produced from recovering perennial grasses.

2. How efficiently organic matter is cycled back into the soil.

Why try planned grazing?

Maintaining productive pasture and grassland by conventional methods can be expensive.

Planned grazing promotes perennial grass seedlings, increases nutrient cycling, and is beneficial for animal health and production. It is an effective way to improve your pastures at a profit.

Everyone’s property is different. Running a trial on a small area will help you to work out how much impact your animals can have (balancing stock numbers and grazing time), and for how long to leave an area after the trial before bringing back your stock (recovery time) in order to regenerate your pasture most effectively.

KEY SKILL: Learn to distinguish pasture and grassland that is **regenerating** (improving in condition) from that which is **underused** or **overused**. When we can reliably tell the difference we can adjust stocking rate and timing of grazing (see table on page 18).

With successful planned grazing, underused and overused pasture or grassland will begin to regenerate. In order to keep track of the regeneration progress we need to establish a monitoring routine (see Part Two of this guide).
SETTING UP A PLANNED GRAZING TRIAL

Setting up a trial

By focusing on a small area you can easily manipulate stock density, grazing time and recovery time without putting your business at risk. In this trial you will learn:

■ when it’s time to remove stock
■ how long your perennial grasses take to recover
■ how to tell when the area is ready to be grazed again.

Figure 2: Grazing in trial area is finished, leaving litter behind for the soil

Figure 3: A recovered perennial grass plant containing fresh litter.

The process

STEP 1: Fence off a small area. Choose your smallest paddock or fence off a corner so that with your mob size the animals are at stockyard densities. For example, if you have sheep in mobs of 500 put them into an area of less than 0.5 ha (1 acre). The closer you can get to stockyard density the less time the stock will need to be in the trial area.

STEP 2: Make a record of the current health of the pasture. It can be helpful to take photos before, during and after this treatment so you can easily monitor any improvement. Take the photo looking straight down from around chest height so that you can see the soil surface. If you want to collect more evidence you can use the monitoring form in Appendix 1 to complement your photos.

STEP 3: Add stock. You might need to leave the animals there for as little as four hours, so keep a close eye on your trial area.

STEP 4: Remove stock. It’s important to take stock out at the right time. Figure 2 shows what you’ll see when it’s time to take stock out – when the animals have trampled most of the area but the soil surface is still 100% covered either by plants or litter.

STEP 5: Record the date, for how long and how many stock were in the trial area.

STEP 6: Leave the area to recover. It typically takes between 6 and 12 months in temperate regions such as southern Tasmania for the best perennial grasses to recover. Grasses are considered to be recovered when they contain fresh litter (dead leaves still attached to plants) and there is no evidence of previous grazing such as chewed tips.

STEP 7: Repeat the process. By doing this you should continuously improve biodiversity of your pasture and the land function.

Recovery time varies with season and from year to year, so you need to keep monitoring and make sure you do not put animals into an area to graze before it is ready, or leave them so long that they create bare ground, otherwise you won’t produce the healthy, diverse landscape you need for your farm.

It is extremely useful to take photographs of your trial area regularly during the recovery period, for example at 60, 90, 120 and 150 days after removing stock, to help refine your understanding of recovery time. Remember to keep records of stock movements and take photos to see how the length of the recovery time affects your pasture.

That’s it!

That’s basically all there is to a planned grazing trial. The animals do all the work. Over time your land, pastures and soil should improve.

Want to know more?

Read Part Two of this manual. You can also talk to NRM South if you want to attend a training course, or to arrange for someone to visit your property to work out the best way to use planned grazing.

www.nrmsouth.org.au or call (03) 6221 6111
To apply what you have learned in your trial area on a larger scale you will need to plan, schedule and monitor.

We’ll show you how to plan for perennial grass recovery and what sorts of things you’ll need to monitor to make sure that your planned grazing management is on track. Scheduling is beyond the scope of this guide and is demonstrated in depth in Holistic Management Training (contact NRM South for further information).

What you learned from your trial

When you’ve grazed stock on a small area of your property using planned grazing for over 12 months, you’ll have learned:

- how stock density, animal impact and recovery can be used to regenerate your pastures/grassland, land and soil health
- when to take stock out of an area
- how long perennial grasses take to recover in that trial area
- how to tell when an area on your property has recovered and is ready to be grazed again.

Important

You should have completed some training and have done a small-scale trial (as described in Part One of this guide) before expanding planned grazing to other areas of your property.
With knowledge of the time it takes for perennial grasses to recover on your farm – the recovery time – along with your knowledge of the relative grazing quality of each of your paddocks, you can develop a paddock plan.

How to develop a paddock plan

There are a number of things you need to know before using planned grazing on a larger scale. Below we have provided an example (from imaginary Farm X) of how to work out the planned grazing days for each of your paddocks.

- **Planned grazing days**: This refers to how long you plan to leave your animals in each paddock in order to allow the other paddocks to recover.

To use the planning tool to work out your grazing days you will need to know:

- **Number of paddocks**: This is the number of paddocks in the larger area in which you intend to use planned grazing (your whole property, or just a portion). For example, on Farm X there are 11 paddocks (Table 1).

- **Recovery time**: This is the period of recovery you found to lead to regeneration of your pasture in the small-scale trial. On Farm X, 150 days recovery was needed for perennial grass recovery.

- **Average grazing time**: This is the average amount of time that stock will spend in each of your paddocks. You can work this out using the recovery time and the number of paddocks.

The average grazing time = recovery time ÷ (number of paddocks - 1)

E.g. average grazing period on Farm X = 150 ÷ (11 - 1) = 15 days

- **Average paddock size**: The average size of paddocks in the larger area you want to use for planned grazing. On Farm X, 1100 ha ÷ 11 = 100 ha.

- **Relative grazing quality of each paddock**: From your experience of grazing in this area, categorise each paddock into good, average or poor grazing quality. See Table 1 for relative grazing quality of each paddock on Farm X.

So you now know that for an average paddock (in terms of grazing quality) of average size (e.g. 100 ha for Farm X) your number of planned grazing days is 15. This acts as a guide for how long you will graze your other paddocks; a paddock that is 50% larger and of the same quality, say paddock 2, will require an increase in the planned grazing time of 50%.

Your planned grazing time is not a precise number of days, it is a starting point or plan – you will always need to monitor the results and adjust the time the animals spend in each paddock so as to maintain animal performance (see page 10 for animal monitoring techniques) and ensure that the soil surface is still 100% covered either by plants or litter (Fig. 2).
### Table 1: Example of planned grazing days for Farm X

<table>
<thead>
<tr>
<th>Paddock Number</th>
<th>Area (ha) of each paddock</th>
<th>Relative grazing quality of each paddock</th>
<th>Planned grazing days</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>100</td>
<td>Average</td>
<td>15</td>
</tr>
<tr>
<td>2</td>
<td>150</td>
<td>Average</td>
<td>23</td>
</tr>
<tr>
<td>3</td>
<td>50</td>
<td>Good</td>
<td>10</td>
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<tr>
<td>4</td>
<td>300</td>
<td>Poor</td>
<td>40</td>
</tr>
<tr>
<td>5</td>
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<td>6</td>
<td>20</td>
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<tr>
<td>7</td>
<td>60</td>
<td>Good</td>
<td>12</td>
</tr>
<tr>
<td>8</td>
<td>120</td>
<td>Poor</td>
<td>15</td>
</tr>
<tr>
<td>9</td>
<td>70</td>
<td>Average</td>
<td>12</td>
</tr>
<tr>
<td>10</td>
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<td>Good</td>
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</tr>
<tr>
<td>11</td>
<td>130</td>
<td>Average</td>
<td>20</td>
</tr>
<tr>
<td>Totals</td>
<td>1100</td>
<td></td>
<td>165</td>
</tr>
</tbody>
</table>

Large scale application

When applying planned grazing to a large group of paddocks or your whole property, you will need a schedule for animal movement to make sure they are in the right paddock at the right time for the right reasons.
The key to successful planned grazing lies in monitoring on a daily and annual basis.

THINGS TO MONITOR DAILY:
- Animal performance – using gut fill and dung assessment
- Land condition – using perennial grass recovery and soil surface cover

THINGS TO MONITOR ANNUALLY:
- Land condition, for signs of overuse, underuse and regeneration [with help from the form in Appendix 1]

Daily monitoring

Daily monitoring of animal and land performance will allow you to take action such as adjusting the number of planned grazing days, stocking rate or recovery time to ensure that your grazing is under control.

Monitoring animal performance

Good animal performance is critical for maintaining profits while improving your land.

When managing animals (especially lambing ewes) at higher densities and in bigger mobs there is a risk that animal performance can suffer. Good gut fill and dung consistency scores indicate that animals are getting enough to eat and that there is a good match between the rumen condition and feed available. Good animal performance and health also depends on access to good quality water.

Cattle gut fill

You can check gut fill by looking at the left-hand side of the animal between the last rib, the backbone and the hip bone (paralumbar fossa, Figure 4).

Sheep gut fill

It is more difficult to monitor gut fill in sheep due to the thickness of their fleece – it can generally only be done accurately for a couple of months after shearing. Several sheep breeders have changed ewe shearing time to make sure that they can observe gut fill coming into lambing, which helps to ensure that ewes are on a rising plane of nutrition.
CATTLE GUT FILL

PART 2

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.
Looking at your animals’ dung will help you to work out how well they are digesting available grass, whether the grass has recovered and if it has a good balance of protein, fibre and energy/carbohydrates.

Observe freshly dropped dung and give it a score according to the table on the next page.

**Note:** Water quality can affect dung scoring. If the water quality is poor the animals can be dehydrated, which will affect the consistency of their dung. This makes it harder to assess the influence of feed quality and quantity.
CATTLE DUNG SCORING

**PART 2**

**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 pallets. 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 pallets to soft pallets 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.
Water Quality

The simplest way to assess water quality is to watch animals drink:
- Good quality water: Cattle and sheep take more than 20 gulps.
- Poor quality water: Animals snuffle and walk away from a trough. To improve water quality, increase the amount of air (aeration) getting into the water supply (e.g. use top feed troughs rather than troughs that fill from the bottom).

Figure 8: Watch the way animals drink to assess water quality
Daily monitoring

This section outlines daily monitoring guidelines to keep the land, biodiversity and soil health improving and on track. There are some visible clues that tell you how long animals should remain in any paddock and when perennial grasses are recovered enough to graze in this area again. If you cannot maintain ground cover and animal performance (gut fill and dung consistency) for the planned grazing time it is usually a sign that you are overstocked.

It is important to take stock out at the right time. Figure 2 shows what this looks like – when the animals have trampled most of the area but the soil surface is still 100% covered by some kind of plant matter. If the land looks like this it is time to take your animals out and let the area recover.

In temperate regions such as southern Tasmania it might take between 6 and 12 months for the best perennial grasses to recover.

Perennial grasses are considered to be recovered when they contain fresh litter (dead leaves still attached to plants) and no evidence of previous grazing such as chewed tips.

Land is considered to be improving when it is increasing in function and biodiversity. The key lies in managing and monitoring the soil surface.
MONITORING PROGRESS

Annual monitoring

Constantly improving land function and biodiversity is critical for maintaining your farm business. This section describes annual monitoring guidelines to keeping the land, biodiversity and soil health improving and on track.

Land is considered to be improving when it is increasing in function and biodiversity. The key lies in managing and monitoring the soil surface.

Annual monitoring aims to provide you with enough evidence to change your management in a positive direction before significant changes to plant species or land health have occurred. The earliest signs are at the soil surface. A loss of volume in your pasture and slower growth rates are also early signs.

Use the annual monitoring form (Appendix 1) to record what is happening at the soil surface. Appendix 2 is a completed example of the land monitoring and corrective action form that can be used to look at possible actions to get your management back on track.

Pastures and grasslands can be classified as overused, regenerating or underused. A description of the signs is provided on the right.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Overused</th>
<th>Regenerating</th>
<th>Underused</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soil surface</td>
<td>Bare soil and evidence of erosion. Capping – sealing of the soil surface by rain drops hitting bare ground (Fig. 9, 10 &amp; 11)</td>
<td>Covered with stable litter layer</td>
<td>Covered with stable litter layer</td>
</tr>
<tr>
<td>Litter condition</td>
<td>No litter present</td>
<td>Increasing litter production and cover. Litter composting/ decomposing (Fig. 13 &amp; 14)</td>
<td>Litter not decomposing and grey oxidising litter present in perennial grasses (Fig. 15a &amp; b)</td>
</tr>
<tr>
<td>Perennial type/succession</td>
<td>Few perennial and annual grasses and plants such as capeweed and thistles increasing in density</td>
<td>Increasing high density of perennial grasses (Fig. 12)</td>
<td>Increasing woody plants such as gorse, blackberry or tree seedlings (Fig. 16)</td>
</tr>
<tr>
<td>Perennial grass diversity and density</td>
<td>Perennial grasses will generally be of low palatability</td>
<td>Increasing diversity with cover of highly palatable grasses increasing in density. Pasture has increasing structure with visible height and understorey.</td>
<td>Perennial grasses will generally be of low palatability</td>
</tr>
</tbody>
</table>

Table 2: Identifying pasture status
MONITORING PROGRESS

LAND OVERUSED

Figure 9: Bare soil
Figure 10: Evidence of capping of the soil surface
Figure 11: Evidence of pedestal erosion

REGENERATING PASTURE

Figure 12: Perennial grass seedlings establishing
Figure 13: Dry litter on the soil surface
Figure 14: Decomposing litter on the soil surface
GUIDE TO PLANNED GRAZING IN SOUTHERN TASMANIA

PART 2

LAND UNDERUSED

Want more information, or help with planned grazing?
If you have questions or want to do more with planned grazing techniques in southern Tasmania, talk to NRM South:
www.nrmsouth.org.au or call (03) 6221 6111

Figure 15a: Types of oxidising (grey) litter

Figure 15b: Types of oxidising (grey) litter

Figure 16: Woody weed such as gorse in underused areas
APPENDICES

Steps for using Appendix 1 and 2

1. Take a copy of the **annual monitoring form** (Appendix 1), a dart (or something else that will pinpoint an area of soil surface), a clipboard and a pen into your trial area.
2. Throw the dart in front of you so it sticks randomly into the soil surface.
3. Record your observation in the **annual monitoring form**:
   a. **What did the dart hit?** Has it hit bare ground (Fig. 9), raw litter (Fig. 13), decomposing litter (Fig. 14) or the base of a plant?
   b. **Soil Surface 15cm around the dart**: Is it capped (Fig. 10), or covered e.g. covered by plant bases or litter?
   c. **Evidence of change**: Are there annual plants present, evidence of soil movement (i.e. litter banks, rills and or pedestalling of plants) and/or evidence of animals (e.g. dung, insects, spiders, slugs etc.)?
   d. **Nearest perennial grass**: What is it and how far away (Fig. 17)?
   e. **Age of nearest perennial grass**: Is it a seedling (just germinated), young (i.e. establishing), mature (i.e. well established) or dying (i.e. turning grey and the middle of the plant may be dead)?
   f. **Any observations**: (e.g. presence of woody plants, problem weeds, perennial plants containing grey oxidising litter).
4. Repeat steps 2–3 at least 10 times or until you have captured the variation within your paddock. If your land function is improving your completed annual monitoring form should contain characteristics of regenerating pasture and grassland areas (outlined on page 18).
   If you are recording characteristics of **overused** or **underused** pasture and grassland areas (outlined on page 18) use the land monitoring and corrective action form (Appendix 2) for alterations to your grazing.
5. Repeat steps 1–4 annually.

Measuring Improvement

To make sure that you are improving land function and biodiversity in your trial site use the annual monitoring form (Appendix 1) to see which direction your land is moving. Once you have completed this form you can use the land monitoring and corrective action form (Appendix 2) to help fine tune your management. Appendices 1 and 2 show completed example of annual monitoring and the corrective actions from the ‘Hill’ paddock. Blank forms are available from NRM South.

![Figure 17: Working out the distance to the nearest perennial grass](image)

4. See **Common grasses of Tasmania: An agriculturalists guide** by Peter Lane, Dennis Morris and Gillian Shannon for identification.
### Holistic Management Planned Grazing Monitoring Sheet

<table>
<thead>
<tr>
<th>Paddock ID: Hill</th>
<th>Photos: 3, 4, 5</th>
<th>Date: 10/11/2011</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Throw number</th>
<th>Bare Soil</th>
<th>Recent Plant Material (raw litter)</th>
<th>Decomposing Plant material (composting litter)</th>
<th>Plant Base</th>
<th>Capped soil surface</th>
<th>Covered</th>
<th>Annuals present</th>
<th>Soil Movement</th>
<th>Evidence of other animals, insects etc</th>
<th>Nearest perennial grass (complete all)</th>
<th>Name of nearest perennial grass</th>
<th>Distance to nearest perennial grass (cm)</th>
<th>Seedling</th>
<th>Young</th>
<th>Mature</th>
<th>Dying</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cocksfoot</td>
<td>10</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Overall lack of litter, composting litter</td>
</tr>
<tr>
<td>2</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td>Cocksfoot</td>
<td>12</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lots of capping, annuals &amp; soil movement</td>
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<td>Only one perennial measured large spacing</td>
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<td>Average 12 1 9</td>
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**Observations**

- Overall lack of litter, composting litter
- Lots of capping, annuals & soil movement
- Only one perennial measured large spacing
- No seedlings and few young plants
- One Kangaroo Grass Plant
- Wide plant spacing
<table>
<thead>
<tr>
<th>Site</th>
<th>Variation to Landscape Goal</th>
<th>Possible Cause of Variation</th>
<th>Possible Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hill</td>
<td>Bare ground between grass plants - no raw litter present</td>
<td>1. Litter not present as recoveries too short to allow perennial grasses to mature and start producing litter&lt;br&gt;2. Animals picking up litter as stocking rate too high</td>
<td>Increase recovery between grazing&lt;br&gt;Reduce stocking rate if animals are observed picking up litter</td>
</tr>
<tr>
<td></td>
<td>Raw litter present but not composting/decomposing</td>
<td>Litter not in contact with soil and therefore not available to decomposing soil organisms</td>
<td>Increase animal impact</td>
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<tr>
<td></td>
<td>Perennial grass spacing increasing/clumpier</td>
<td>Perennial grass drying as recovery period is too short and pastures are overused</td>
<td>Increasing recovery period (e.g. from 150 to 180 days)</td>
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<tr>
<td></td>
<td>Seedlings not present</td>
<td>1. Lack of animal impact/disturbance to initiate germination&lt;br&gt;2. Recovery period is too short</td>
<td>1. Increase animal impact through a smaller paddock&lt;br&gt;2. Check if seedlings present before grazing again. If present and not establishing increase recovery period to allow these plants to mature and start producing litter</td>
</tr>
<tr>
<td></td>
<td>Grey oxidising grass noted as increasing</td>
<td>1. Perennial grass litter not cycling&lt;br&gt;2. Paddock too large to allow even grazing</td>
<td>1. Check increasing animal impact/density&lt;br&gt;2. Check if smaller paddocks increasing in woody plants</td>
</tr>
<tr>
<td></td>
<td>Woody plants noted as increasing</td>
<td>1. Perennial grass drying from underuse&lt;br&gt;2. Paddock too large to allow even grazing</td>
<td>1. Check increasing animal impact/density&lt;br&gt;2. Check if using smaller paddocks reduces the spread of woody weeds by looking to see if there are any new woody weed seedlings</td>
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<tr>
<td>Throw number</td>
<td>What the dart hit (tick one)</td>
<td>Soil Surface 15cm around the dart (tick one)</td>
<td>Evidence of change (complete all)</td>
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<tr>
<td>--------------</td>
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<tr>
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<td>Bare Soil</td>
<td>Capped soil surface</td>
<td>Covered</td>
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<td>Recent Plant Material</td>
<td>Decomposing Plant material (composting litter)</td>
<td>Soil Movement</td>
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<td>(raw litter)</td>
<td>Plant Base</td>
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Totals
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<tr>
<th>Who/When</th>
<th>Possible Corrective Action</th>
<th>Possible Cause of Variation</th>
<th>Variation to Landscape Goal</th>
<th>Site</th>
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</table>

**Date:**

LAND MONITORING AND CORRECTIVE ACTION FORM
APPENDIX 3

PLANNED GRAZING DAYS WORKSHEET

Date: ______

<table>
<thead>
<tr>
<th>Paddock Number</th>
<th>Area (ha) of each paddock</th>
<th>Relative grazing quality of each paddock</th>
<th>Planned grazing days</th>
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