

Quick and Dirty Small farm health check

for farms with cattle



**20 simple questions
that can be answered with a spade,
a screwdriver and a bucket**

and 40 minutes of your time

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- What to do:**
- 1. Gather a bucket of water, spade and screwdriver.**
 - 2. Read through the questions and get a feel for you have to do. And do it.**

Soil Questions	What this means	Score	
As you walk around the paddock, does the ground seem hard or soft and springy?	Hard ground is not in good condition. A soil with ample root systems will feel soft to walk on.	Soft	5
		A bit	3
		Hard	1
Dig a square hole about the width and depth of your spade. (Was it hard to dig? See Q1). Does a handful of the soil smell more like compost or like dust?	A biologically active soil will smell like compost. A soil will not have good biological activity if it does not have good structure, aeration and organic matter levels.	Compost	5
		A bit dusty	3
		Dust	1
Pour half a bucket of water in the hole. Does it disappear quickly or slowly?	A soil with good structure will drain quickly.	Quick	5
		A bit quick	3
		Slow	1
Throw the other half over the grass nearby. Does it disappear quickly or slowly?	When it rains a well-structured soil will allow water to infiltrate quickly through channels created by roots and soil biota.	Quick	5
		A bit quick	3
		Slow	1
Walk around the paddock and stop every ten steps. Push the screwdriver into the soil until it starts to hurt your hand. How far into the soil did it go?	Top-soils vary in their depth, but a soil with good structure will allow the screwdriver to be pushed in easily. If a screwdriver struggles to penetrate the soil, then so will plant roots.	Handle	5
		Past half-way	3
		Not far	1

Pasture Questions	What this means	Score	
Walk around in a random fashion. Every 10 th step, look under your left boot to see if it is totally grassed or has any bare ground? Do this ten times. How often did you have bare ground?	Bare ground is an indicator of erosion hazard. But it also indicates that pastures are not as dense as they could be. A well managed pasture with good soil health has no bare ground.	0-1	5
		2-3	3
		>3	1
Scratch at the litter (dead grass) on the ground. Is it a distinct layer on top of the soil, or is there a bit that looks half soil and half litter.	This is an indicator of soil biological activity. Ideally, litter which falls to the soil surface is quickly decomposed and the nutrients are cycled through soil biota, plants and stock.	Mixed	5
		Sort of	3
		Distinct	1
Have a look over the whole paddock. Are there clumps of grass that your stock don't seem to eat?	Clumps of uneaten grasses indicate that past grazing management has allowed stock to degrade the most palatable pastures.	None	5
		A few	3
		Lots	1
Do your stock look healthy and happy? Do they grow and gain weight well, or do they need supplements to maintain condition?	Lack of weight gain indicates that there is insufficient quantity and quality of pasture for the number of animals.	Gain	5
		Maintain	3
		Lose weight	1
Does the dung in the paddock look like: porridge >4-5 cms high, • runny custard (2.5 cms) • thick porridge (over 5 cms) • a watery splat • biscuits? <i>*Thanks to Graeme Hand for the dung rating system, which I have adapted.</i>	Porridge 4-5cms high: indicates the pastures are providing good general stock health. Backsides are clean. Custard or watery splat: Animals are at risk of metabolic diseases and losing condition. Backsides are messy. Thick porridge or biscuit: The pasture is lower in protein and energy, and higher in fibre than is optimal.	Porridge 4-5 cms	5
		Custard or thick porridge (>5 cms)	3
		Splat or biscuit	1

Water Questions	What this means	Score	
Watch your cattle drinking. Do they take lots (>20) of big gulps quickly, big gulps slowly, or sort of sip at it.	Water of poor quality is not attractive for stock to drink, and animal production will suffer.	Gulps	5
		Slow gulps	3
		Sips	1
In a big rainfall event, how long does it take until water starts to run in channels over your paddock?	A paddock with good soil and pastures will generally absorb a lot of rain.	>3 hours	5
		1-3 hours	3
		<1 hour	1
When water does run off your paddocks after rain, is it clear, a bit cloudy, or dirty?	When run-off does occur, a good pasture will not allow soil movement, and so keep the water clean.	Clear	5
		Cloudy	3
		Dirty	1
If your stock drink from troughs, what is the temperature of the water: cool, tepid/warm or quite warm	Stock prefer cool water and animal production suffers with warm water. Troughs need to be deep enough to allow cooler water to cycle with the surface water.	Cool	5
		Tepid	3
		Quite warm	1
If your stock drink from troughs, can you provide 100 litres per day for each animal for a week if the system fails?	When breakdowns occur, stock still need water while it takes you time to notice and repair them. Score 3 if you don't use troughs.	Yes	5
		Maybe	3
		No	1

Native Vegetation Questions	What this means	Score	
If you have bushland or streambank vegetation in your paddock, does it have an understorey of shrubs & groundcovers?	Healthy bushland will have a mixed community of species – not just the species that are too big for stock to eat. Understorey provides habitat for many critters.		5
			3
			1
Does your bushland have young tree seedlings growing?	Healthy bushland will have tree seedlings growing. Without these it cannot regenerate over time.	Lots	5
		A few	3
		None	1
Do your trees have seeds (esp. eucalypts), seed pods or fruit on them?	Reproductively healthy trees will have seed and/or fruits. Without these it cannot regenerate over time.	Lots	5
		A few	3
		None	1
If your stock drink from a watercourse, is it fenced?	Unmanaged access to watercourses leads to degradation of the water, stream and vegetation. Score 3 if you don't have a watercourse.	Fenced	5
		-	3
		No fence	1
Does your paddock provide enough shade for all your stock: yes, yes but it's all in one place, or no?	Stock need enough shade to be comfortable. Animal performance will suffer if stock are heat stressed, and reliance on one clump of vegetation for stock shade will likely degrade the vegetation.	Yes	5
		Yes, but ...	3
		No	1

Your total scores

Soil	Pasture	Water	Vegetation	Total	/100
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Did you score well in each section? **Yes.** Well done. Attention to grazing management could optimize your land condition.

Did you score not-so-well in some sections?

Soil The assessments in this section are all inter-related and reflect soil structure. A poor score for suggests that your soil is not open to air and water, and has insufficient organic matter to feed a diverse soil biology community (bacteria, fungi and protozoa) that is needed for nutrient cycling and plant growth.

While you may also have deficiencies in soil chemistry and biology, early attention to developing soil structure through grazing management to encourage pasture root systems might be your priority. Soil chemical and biological assessment might be next.

Pasture The assessments in this section refer to the quantity and quality of your pastures. A poor score suggests that your pastures do not grow well and have low nutrient value (perhaps reflecting soil conditions), may have been over-grazed in the past (so that the best species are struggling), and grass growth will not respond well to rainfall.

While you may also have deficiencies in soil chemistry and biology, early attention to developing soil structure through grazing management to encourage palatable perennial species and pasture root systems might be your priority. Pasture identification could be a useful next topic.

Water The assessments in this section refer to the quality and quantity of water for stock use, and the erosive potential of water as rainfall. A poor score suggests water quality may be low, you may have a risk of water shortage in the event of a system failure, and/or you may be losing nutrients and soil in rainfall events.

Attention to watering systems and grazing management might be your priority.

Bushland The assessments in this section refer to the ecological condition of your native vegetation, and the extent of shade for stock. A poor score suggests that your native vegetation is at risk. It may be difficult to score well if the native vegetation is unfenced and provides your stock's only source of shade.

Attention to bushland regeneration principles and techniques, planned grazing and alternative water systems may be most useful.

What next Landcare organisations and catchment management groups often conduct workshops and programs that provide useful, locally relevant information and skills.

See also: www.dirtygreen.com.au

