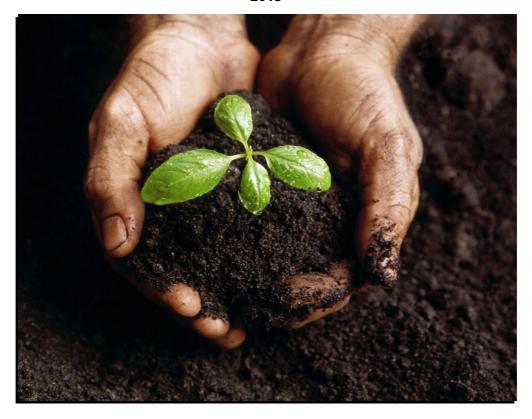
# Permaculture Research: Soil Test Record Sheet

Chris Warburton-Brown and Tom Kemeny 2015



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This booklet should be used with the accompanying *Soil Tests Handbook* and *Soil Advice Booklet*, downloadable for free:

https://www.permaculture.org.uk/research/soil-yield-and-biodiversity-tests-project



The Permaculture Research: Soil Record Sheet.

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Permaculture Research: Soil Record Sheet, Version 2

## **Site details**

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Name of person doing tests:

Location of soil test area within the site:

Current use of this area:

Other use/s of area in last five years:

# <u>Preliminary tests</u> 1) Anaerobic conditions and pollution

### The smell test

Sour, putrid or chemical smell	Do not proceed with tests
No smell	Proceed with tests
Earthy, sweet or fresh smell	Proceed with tests

# 2) Waterlogging and dryness

The squeeze test

Dry soil	Do not proceed with tests
Moist soil	Proceed with tests
Wet soil	Do not proceed with tests

# **Main Soil tests**

# 1. Drainage

### 2. Earthworms

How many earthworms did you count?

The more earthworms, the better. They indicate a high level of soil biology

# 3. Top soil depth

How deep is your soil?

Very shallow (<15 cm)	
Shallow (15-30 cm)	
Moderately deep (30-60 cm)	
Deep (>60 cm)	



The deeper your son	the better. It holds more wat <b>4. Soil texture</b>	• • • • •
What texture is you	r soil?	_
	<u>5. Soil structur</u>	<u> </u>
The visual inspecti	on test	
Is your soil:		
Soft		
Cloddy		
Platey		
Is there a pan in you		oot and water penetration.
Is there a pan in you Soft soil is good. Pan	s are undesirable, blocking r	oot and water penetration.
Is there a pan in you Soft soil is good. Pan  The slaking and di	s are undesirable, blocking r spersal test	oot and water penetration.
Is there a pan in you Soft soil is good. Pan	s are undesirable, blocking r spersal test	oot and water penetration.  After 24 hours
Is there a pan in you Soft soil is good. Pan  The slaking and di	s are undesirable, blocking r spersal test slaking in the jar:	,
Is there a pan in you Soft soil is good. Pan  The slaking and di Record the state of	s are undesirable, blocking r spersal test slaking in the jar:	,
Is there a pan in you Soft soil is good. Pan  The slaking and di Record the state of some	s are undesirable, blocking r spersal test slaking in the jar:	,

What is the pH of your soil?

A pH between 6 and 7 is best for most plants to grow.

# 7. Soil compaction

What is the bulk density score of your soil?

In sandy soil, a bulk density score below 1.6 is desirable, higher than 1.8 is a problem.

In silty soil, a bulk density below 1.4 is desirable, higher than 1.6 is a problem. In clay soil, a bulk density below 1.1 is desirable, higher than 1.5 is a problem.

