



Bath Organic Group – 30 years of growing organically

A Zoom talk held for
Widcombe Association Garden
Club
on 15 March 2023

Kate Mills, past Chair of BOG
Lyn Barham, Treasurer & Membership Sec

Kate and Lyn talked about

- organic gardening principles
- Bath Organic Group and development of the Community Garden
- the importance of soil

The slide presentation was rich with images and photographs, and therefore is too large to transmit by email.

This mailing includes some of the reference material, including the 'kitchen science' suggestions for examining your soil and the link to the excellent BBC video

What is organic gardening?

- The essence of organic gardening is to work within natural systems and cycles. Organic growing doesn't just mean avoiding the use of chemical weed killers and pesticide sprays - it is more exciting, challenging and satisfying.
- It is using natural ways to promote a complete, healthy, productive and sustainable growing environment. It involves feeding the soil, encouraging wildlife, and working creatively alongside nature when managing pests, diseases and weeds.

BATH ORGANIC GROUP (BOG)

How it came together

- Around 1986, Bath and Bradford on Avon members of the Avon Organic Group decided to establish a local group
 - Originally talks and visits
 - In 1990, negotiated on 10 vacant allotment plots
 - Formal opening by the mayor in 1991, with HDRA in attendance

- Some orchard enthusiasts joined in 1999

- The garden now occupies the equivalent of 21 allotment plots

BOG welcomes visitors

Our garden is a demonstration garden

- Composting
- Care of the soil
- Biodiversity
- Seed sowing
- Care of crops and harvesting
- Pruning
- Seed saving

Visitors have included

Primary schools
American Student groups
Forest school
University Gardening Club
Bathscape walk
Grow It, Eat It
Walcot State Choir
Bath Area Growers

Britain in Bloom judges!!

... and soon ...

Widcombe Association!

SOIL MATTERS ...

... in recent years understanding has grown

Soil is the upper layer of the solid Earth and, like biodiversity, it is the product of millions of years of evolution.

Like much of our world, it is co-created by the life that it supports.

[Dr Tony Kendle, soil scientist, ex of Eden Project and Reading University]

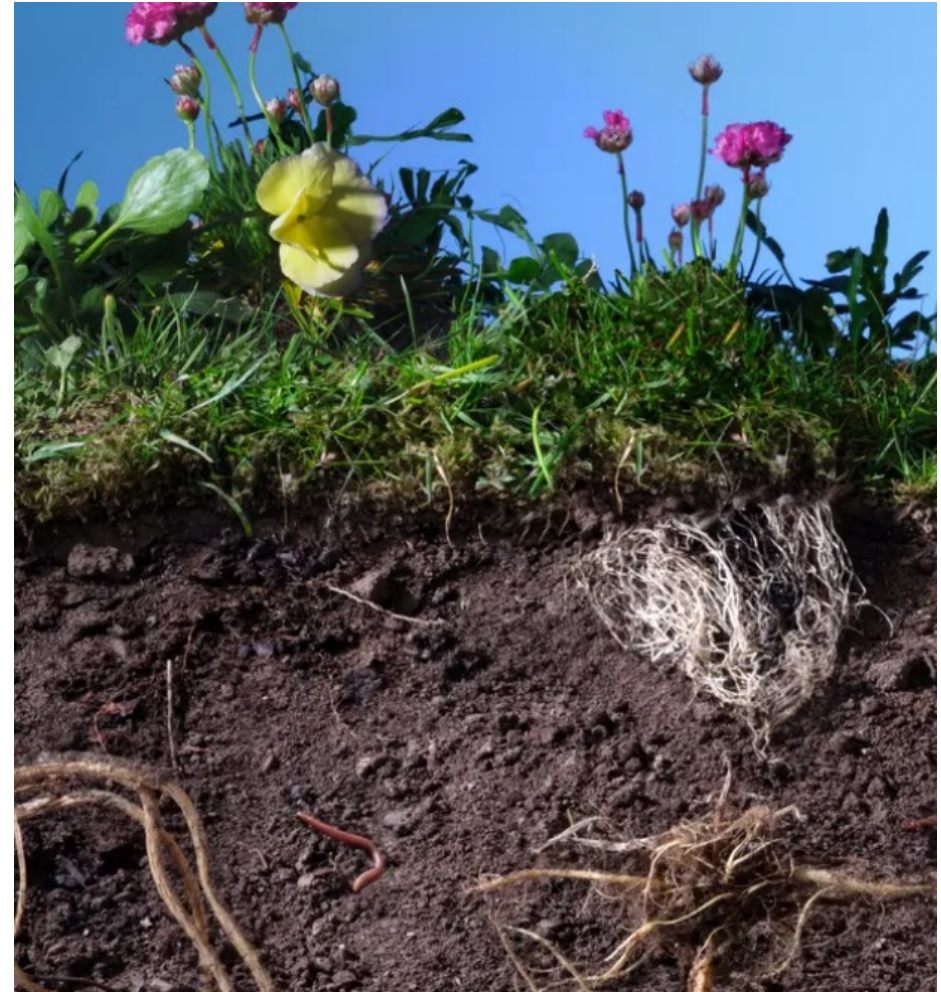


SOIL

PLANTS AND SOIL

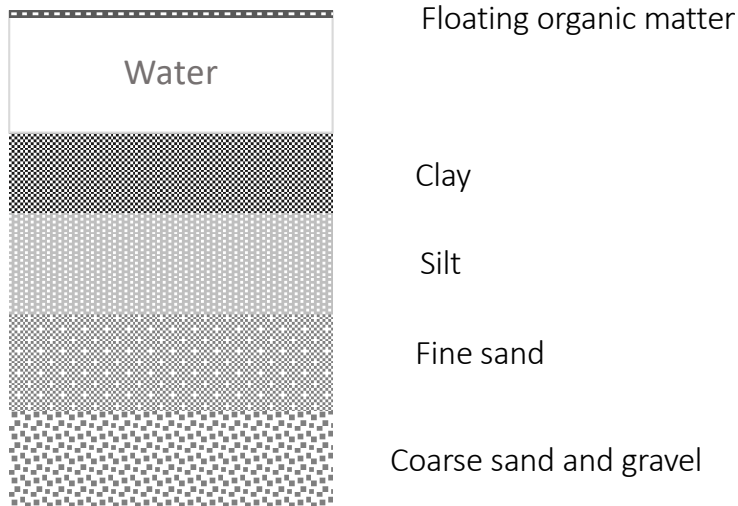
3 aspects of soil:

- Structure
- pH balance (acidity or alkalinity)
- Nutrients



Soil structure test

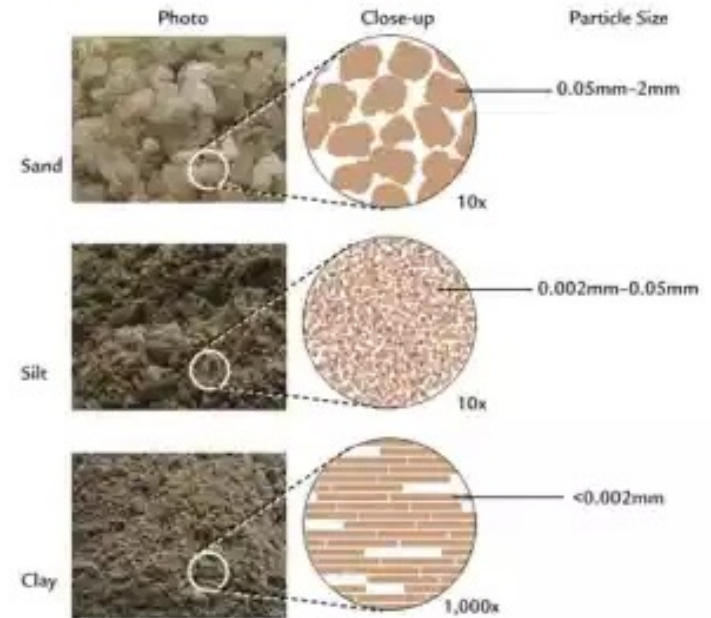
- sediment layers in the jam jar:



Quick 'hand' test: pick up a small handful of damp soil, and roll it between your hands to make a 'worm'. If it holds its shape, it is rich in clay; if it just crumbles, it is sandy.

Scrape away the top 1cm, then part-fill a jar with the exposed soil. Add plenty of water and shake very vigorously. Leave to settle for 24 hours.

Sand, Silt, and Clay



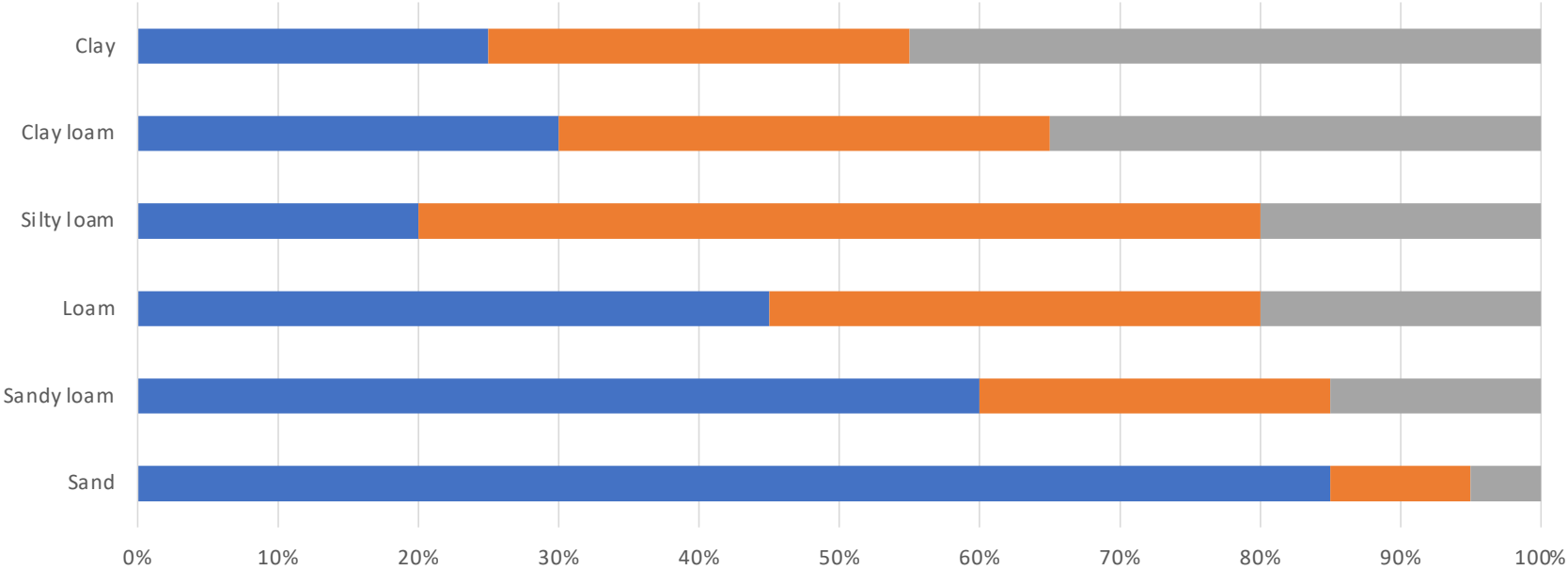
Note that these are at different magnifications

Table of soil types



Silt is granular material of a size between sand and clay and composed mostly of broken grains of feldspar and quartz

Soil structure types



Soil pH – a simple test

Neutral soil is pH 7

6 and below is acidic soil

8 and above is alkaline soil

A quick soil check that indicates if soil is far off neutral:

> Put samples of soil in two clear containers

> Add white vinegar to one, and shake or stir. If it bubbles, the soil is alkaline

> Add baking powder dissolved in water to the other, and shake or stir. If it bubbles, the soil is acidic

If there is no distinct reaction to either, your soil is probably close to neutral

BBC Ideas in partnership with the Royal Society

We watched a video during the talk.
The link is below, and it is well worth watching!

Why soil is one of the most amazing things on earth

<https://www.bbc.co.uk/ideas/videos/why-soil-is-one-of-the-most-amazing-things-on-earth/p090cf64?playlist=made-in-partnership-with-the-royal-society>

Key lessons

- Like many small, precious and complex things the detailed micro structure of soils is easily destroyed.
- Soil is an essential carbon store. Turning the soil and exposing it to air can oxidise the soil carbon allowing it to escape to the atmosphere as carbon dioxide. **The more we disturb soil, the more carbon we release.**
 - [NB: BOG is low-dig but not no-dig]
- Plant roots and soil micro-organisms live in a symbiotic relationship, each feeding the other. **Throwing artificial fertilisers and pesticides into the system ruins that delicate balance.**

Did you know that there's a natural antidepressant in soil? **Mycobacterium vaccae** is the substance under study which has been found to mirror the effect on neurons that drugs like Prozac provide. The bacterium is found in soil and may stimulate serotonin production, which makes you relaxed and happier.

Most avid gardeners will tell you that their landscape is their 'happy place' and the actual physical act of gardening is a stress reducer and mood lifter. Lack of serotonin has been linked to depression, anxiety, obsessive-compulsive disorders, and bipolar disorders. The bacterium appears to be a natural antidepressant in soil and has no adverse health effects. These antidepressant microbes in soil may be as easy to use as just playing around with your soil.

Read more at Gardening Know How: Antidepressant Microbes In Soil:
How Dirt Makes You Happy
<https://www.gardeningknowhow.com/garden-how-to/soil-fertilizers/antidepressant-microbes-soil.htm>



More kitchen science: Learning from the Land

This series of six short videos is addressed to farmers, but they are equally interesting for home and allotment gardeners.

The 'kitchen' equipment needed includes glass jars, funnels, kitchen paper, and a few other items that would be easy to obtain.

Topics:

- ✓ Know your soil bugs
- ✓ Extracting soil bugs
- ✓ The soil slab
- ✓ Sediment and nutrient loss from soils
- ✓ Holding on to soil nutrients
- ✓ Soil structural ability

<https://www.youtube.com/watch?v=ELQ13aEUhg&list=PLOCBAMIFLaLMEaZmrXog-cYXU4J0Xa9mA>



BOG looks forward to welcoming members of the Widcombe Association Garden Club for a visit in May.