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# Soil science: British Garden Centres guide to understanding your garden

Understanding your garden soil is not just about knowing the dirt beneath your feet; it's about unlocking the potential for a vibrant and flourishing garden. The type and quality of soil you have will determine which plants can thrive in your garden and what you need to do to help them succeed. To help you gain a better understanding of the different soil types and which type is best suited for which plants, Julian Palphramand, Head of Plants at British Garden Centres has compiled a comprehensive guide.

## What type of soil do I have?

Garden soil is a complex ecosystem that consists of mineral particles, organic matter, water, air, and living organisms. The composition of garden soil can vary depending on factors such as location, climate, and past land use. Understanding the unique properties of your garden soil is the first step towards creating a blooming garden.

**Clay:** Clay soil is exactly how it sounds: either wet or sticky during rainfall then becoming cracked and dry during the hotter weather. Clay can hold water and nutrients tightly due to its fine particles and high plasticity so can be very fertile. However, it can also be quite hard making it difficult for plant roots to establish and compact easily. It also tends to retain water, which can result in slow drainage and waterlogging. This can affect plant health and make the soil difficult to work with. Clay soil will easily roll into a ball in your hands.

The simplest way to improve clay soil is to incorporate bulky organic matter such as compost or farmyard manure, as well as some sand and grit. This will improve soil fertility, aeration, drainage and moisture retention.

**Plants for clay soil:** Rudbeckia, echinacea, hostas, foxgloves forsythia, geranium, hydrangea, buddleia, astrantia, anemone, sedum, viburnum, roses, hellebores.

**Sandy:** Sandy soil tends to feel dry and gritty and is prone to wind and water erosion. It is the lightest of soils and one of its main advantages is excellent drainage. Water moves through sandy soil quickly, which can be beneficial in preventing waterlogging. The loose texture makes it easy to work with, allowing plants to establish their roots. Sandy soil tends to warm up more quickly in the spring than clay or loamy soils, making it suitable for early-season planting but one of its disadvantages is its low capacity to retain nutrients.



To improve sandy soil, adding compost or well-rotted manure is an effective way to improve moisture retention. Additionally, using mulch can help conserve moisture and enhance nutrient retention in sandy soil.

**Plants for sandy soil: Mediterranean** plants and herbs such as lavender, rosemary, sage, and cistus. Hollyhocks, salvia, coreopsis, gaillardia, verbena, agapanthus, agastache, berberis, hardy fuchsias, mahonia, eryngium, dianthus, lupins.

**Silt:** Silty soil is very fertile, so plants thrive in it. It holds more nutrients than sandy soil, retains moisture, has a silky texture and drains well. has medium-sized particles, finer than sand but coarser than clay. Silt particles are smooth and have a powdery feel when dry. Silt soil tends to be fertile and holds moisture better than sandy soil, but it can still be prone to compaction.

Incorporate organic matter, such as compost, to improve soil structure, drainage, and nutrient content. Waterlogging is one of silty soil's biggest disadvantages, but this can be avoided by not overwatering and aerating when needed.

**Plants for silty soil:** Alliums, astilbe, berberis, birch, cornus, Cotinus, cypress, ferns, hellebore, hosta, magnolia, snowdrops, willow, vinca

**Chalk:** Chalky soil is often stony and lumpy with high alkalinity and pH due to the amount of limestone and calcium carbonate. It has a higher pH level, above 7.0. Some plants prefer slightly acidic to neutral soils, so the alkalinity of chalk soil can impact plant selection. It often can lack trace elements such as iron and manganese causing poor growth and yellowing of leaves and plants. To improve, add organic matter annually or more as it will decompose quicker in chalky soil.

To test for chalk and alkaline, you can buy a soil testing kit to give an idea of the soil pH. Acid soils have a pH of less than 6.0, alkaline ones are higher than 7.0, while soils with a pH of 6.0-7.0 are about right, or neutral.

**Plants for chalk soil:** Aquilegia, aster, campanula, achillea, fritillaria, heuchera, ligustrum, peony, rudbeckia. wallflowers, weigela, viola, ivy, jasmine, lonicera, nepeta, lilac

**Loam:** Loam soil is referred to as "the gardener's friend" because of its versatility. Considered to be the perfect soil for plants, loam soil is a balanced combination of sand, silt and clay. The combination of different particle sizes gives loam soil a crumbly, well-structured texture that is easy to work with. Loamy soils are mostly easy to dig over very fertile and full of organic matter, they drain well, retain moisture and hold a lot of nutrients.



If your garden soil is not naturally loamy, you can improve it by incorporating organic matter, such as compost or manure, to enhance its fertility and structure.

**Plants for loam soil:** Roses, Crocosmia, Dicentra, Honeysuckle, Magnolia, Rhododendron, Peony, Wisteria, as well as bedding plants.

Julian Palphramand, Head of Plants at British Garden Centres said: "The health of the soil directly impacts plant growth, and successful gardening often begins with knowing what varieties your garden best. Our knowledgeable team at your local store will be able to advise and help you choose the best plants to suit your soil and garden setting. By tailoring your approach to the specific characteristics of your soil, you can create a healthy environment that will bloom all year round!"

### ENDS:

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### Notes to Editors:

### About the business:

British Garden Centres (BGC) is the UK's largest family-owned garden centre group with 62 centres around the country. The group is owned and led by The Stubbs family, who also own and operate Woodthorpe Leisure Park in Lincolnshire. BGC was launched in 1987 with the opening of Woodthorpe Garden Centre funded by brothers Charles and Robert Stubbs. Since 2018 it has expanded rapidly with the acquisition of 50 garden centres allowing it to grow from its heartland to the business it is now with 62 garden centres spread from Carmarthen to Ramsgate, Wimborne to East Durham. The group has a team of 2,700 colleagues working across the garden centres, restaurants, 2 growing nurseries, 4 distribution centres and Woodthorpe Leisure Park and Woody's Restaurant & Bar.

### Social Media

Facebook: British Garden Centres Twitter: @BGCentres Instagram: @BritishGardenCentres Website: www.britishgardencentres.com

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