

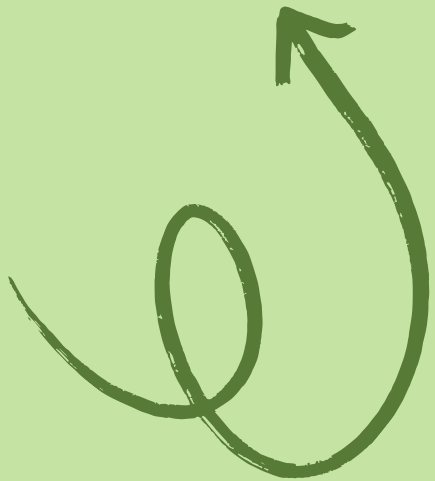


Soil Mixtures & Plant Nutrition

Presented by Shelter International e.V.



Co-funded by the
Erasmus+ Programme
of the European Union





Why Container Soil Matters

Container soil must ensure **optimal drainage, aeration, and nutrient retention**. Unlike garden soil, it lacks natural structure, making it essential to create ideal mixtures for healthy plant growth in limited spaces.

Container Soil Challenges

Key Issues for Container Gardening Success

Compaction

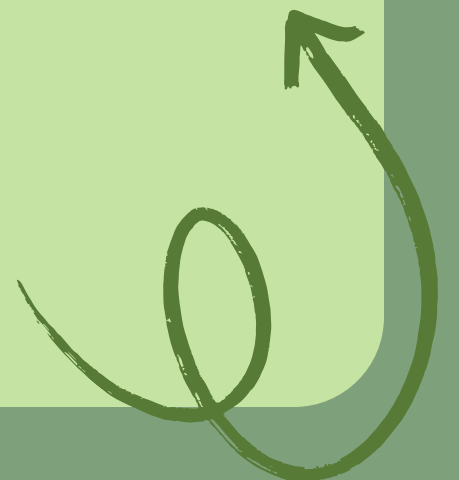
Compacted soil restricts root growth, preventing plants from accessing essential nutrients and water. This results in stunted growth and weak plants, making proper aeration necessary.

Poor Drainage

Inadequate drainage can lead to waterlogged roots, promoting diseases like root rot. Ensuring proper drainage materials and practices is crucial for healthy container plants.

Pests

Container gardens can attract pests due to limited space and resources. Regular monitoring and proper soil mixtures help minimize pest-related issues and promote plant health.



Coco Coir Components

Water Retention



Coco coir retains moisture, making it perfect for healthy container gardening.

Aeration



Its fibrous structure enhances soil aeration, promoting root health and growth.

pH Neutrality



Coco coir is pH neutral, making it versatile for many plants in containers.

Peat Moss Overview

High Water Retention



Peat moss retains moisture well, making it essential for container gardening success.

Acidic pH



Its naturally acidic pH can benefit acid-loving plants in container gardens.

Sustainable Concerns



Awareness of sustainability issues is important when using peat moss for gardening.

Compost Benefits

Nutrient-Rich



Compost is **packed with nutrients** essential for plant growth and development, enhancing soil health.

Improves Structure



Adds organic matter that **enhances soil structure**, improving aeration and water retention for plants.

Microbial Benefits

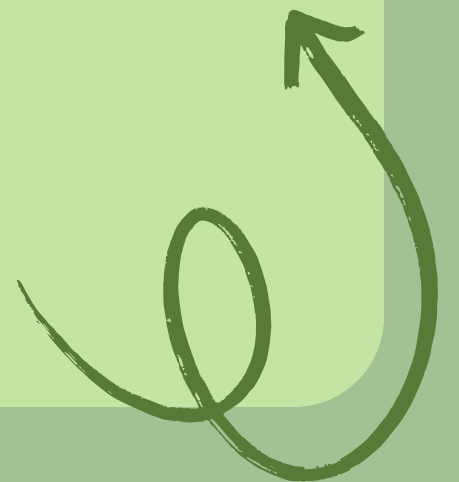


Contains beneficial microbes that **promote healthy soil ecosystems**, improving nutrient availability for plants.

Worm Castings

Super Nutrient-Rich Organic Amendment

Worm castings are a **gentle, nutrient-rich component** for container soil mixtures. They enhance microbial activity and provide slow-release nutrients, benefiting plants while improving overall soil health.



Aeration Materials for Container Soil

Enhancing Soil Structure and Drainage

Perlite, **vermiculite**, and **coarse sand** are essential aeration materials that improve **drainage** and **oxygen levels** in container soil, ensuring healthier plant growth and preventing compaction issues.



Aeration Material Uses

Optimal soil composition for containers

Perlite

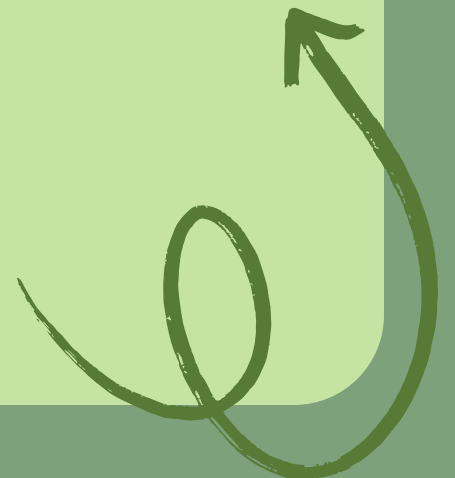
Perlite is a lightweight **volcanic glass** that improves moisture retention and prevents soil compaction. Use it at 10-20% of your mix for optimal aeration.

Vermiculite

Vermiculite is an expanded mineral that enhances water retention while promoting aeration; it is ideal for seedlings and should also comprise 10-20% of your soil mixture.

Coarse Sand

Coarse sand improves drainage and adds weight to the mix. Use it cautiously for dry-condition plants to ensure adequate aeration and avoid waterlogging.



Key Uses of Lime and Biochar



Lime

Raises pH to neutralize acidity from peat.



Biochar

Enhances microbial activity and long-term soil health.

Start Mixing Soil!

Create Healthier Container Plants Today

Mixing your own soil ensures optimal growth for balcony plants, utilizing organic components and amendments that enhance drainage, aeration, and nutrient retention for thriving container gardens.



Co-funded by the
Erasmus+ Programme
of the European Union

