

EVERYTHING YOU NEED TO KNOW ABOUT

Perlite for Horticulture



Perlite plays a crucial role in horticulture due to its unique physical properties that promote healthy plant growth. This lightweight, porous material is highly valued for improving soil aeration, drainage, and moisture retention—factors essential for successful cultivation. From seed starting mixes to advanced hydroponic systems, perlite enhances growing conditions across various applications. Its sterile nature and ability to prevent soil compaction make it indispensable for both professional growers and home gardeners, supporting strong root development and overall plant health.

Perlite's adaptability in soil and plants' moisture requirements make it a permanent and valuable resource to gardeners and growers. Most plants (annuals, trees, shrubs) desire soil with a moisture holding capacity of 21–40%. Whereas most vegetable plants (cucumbers, tomatoes, peppers, carrots, etc.) prefer higher moisture levels in the range of 40–80%.

Since perlite is manufactured in different particle sizes and screening processes, it is adaptable to suit the needs of the soil environment, plant's needs, and the grower's preference. A coarser particle



When propagating plants from cuttings, using 100% perlite or perlite in your soil mix will ensure healthy plant development by providing optimal conditions for rooting.

APPLICATIONS FOR PERLITE IN HORTICULTURE

Seed Starting Mixes

Potting Mixes

Hydroponics

Container Gardening

Rooting Cuttings

(+12 mesh/+1.6 mm) will provide more aeration and less water holding capacity while a finer particle (-12 mesh/-1.6mm) will provide more moisture retention and less aeration. In dense clay soils, perlite can aid in separating the water-bound clay particles allowing water to penetrate and make water bound nutrients available to the plants. Whereas in sandy soils, perlite's porous structure allows for more moisture retention to help conserve water, nutrients, as well as control runoff.

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BENEFITS OF USING PERLITE IN HORTICULTURE

- Improve Aeration:** The porous nature of perlite allows for better airflow within the soil or growing medium. This is crucial for root health as it prevents soil compaction and ensures that roots have access to oxygen.
- Moisture Retention:** While perlite promotes drainage, it also retains some moisture due to its porous structure. This property helps maintain adequate moisture levels around plant roots without leading to waterlogging.
- Enhanced Drainage:** Perlite helps improve drainage in potting mixes and garden soils. It reduces the risk of overwatering by allowing excess water to flow easily through the soil, preventing root rot and other moisture-related issues.
- Lightweight Component:** Being much lighter than traditional soil components like sand or clay, makes perlite easier to handle and transport growing media. This is particularly beneficial for container gardening where weight can be a concern.
- pH Neutrality:** Perlite has a neutral pH level, which means it does not alter the acidity or alkalinity of the growing medium. This stability allows gardeners to maintain optimal pH levels for specific plants without interference from the growing medium itself.
- Inert:** Perlite is a sterile material that does not harbor pathogens or pests, making it an excellent choice for starting seeds or propagating cuttings without introducing harmful organisms into the growing environment.



1

Volcanic events create perlite ore as moisture is trapped in rapidly-cooled magma



2

That dense, hard perlite ore is mined and crushed to various grades



3

Crushed perlite ore is expanded, or popped, into frothy nuggets of tiny fused glass bubbles



4



5

Expanded perlite blends readily into grow media (or can be used alone)



6

Perlite-enhanced grow media boosts soil performance and allows plants to thrive

PERLITE: FROM ORIGIN TO HORTICULTURAL WONDER

PERLITE IS ONE OF THE NATURAL WONDERS OF EARTH!

Photos courtesy of Supreme Perlite; Hess Perlite

