

Landscape Applications for Improving Clay and Compacted Soils



1993 NCSU Bedding Plant Trials Raleigh, NC



Fall 2000

George Washington's Mt. Vernon, VA ↑ 2003

Directions for amending compacted soils with PermaTill®

New Plantings

Remove unwanted vegetation and debris. Spread the layer of PermaTill over the entire area to be amended. If organic matter is required, add ½" layer of approved compost in addition to the PermaTill. How much PermaTill depends on the desired root depth and the existing soils.

Finished soil depth		PermaTill layer
6"- 8"	add	1.5"- 3"
10"- 12"	add	3"- 4"
and so on....		

Rule of thumb: The more compacted the soil is, the higher the rate of PermaTill will be. Roots thrive in 100% PermaTill which does not change or decompose over time.

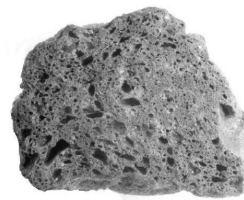
Existing Plants

Use a spading fork to loosen the soil around the drip zone of plants to a depth of 6"-8". Fill the cracks to the surface with PermaTill. Top-dress with compost if needed. Tamp and water thoroughly. For large trees and shrubs professionals recommend vertical mulching and radial trenching out from the drip zone. Fill trenches and auger holes with PermaTill for long term aeration.

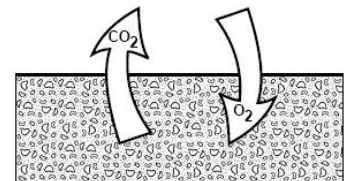
LONG TERM BENEFITS

- Permanent application
- Sterile and inert
- 6 - 10 % moisture retentive
- 26.9 me/100g CEC for enhanced nutrient retention
- High water release curve reserves pore spaces for air and roots
- Encourages water, air and roots to move deeper into the soil

Enlarged view of STALITE PermaTill® rotary-kiln fired expanded slate particle



LONG TERM AERATION



Oxygen (O₂) and carbon dioxide (CO₂) exchange in the soil.

Other Sustainable Horticultural Applications with STALITE PermaTill®:

Existing tree root bridging and compaction reduction • Protecting roots from vole damage • Greenhouse and nursery production
 Green roof media • Structural soils for urban trees • Structural soils for turf areas and fire lanes • Bioretention and rain garden media
 Water garden potting and filtration media • Pathways and decorative stone • Geotechnical uses