



Environmental Horticulture Notes

EHN 56

IMPROVING LAYERED SOILS FOR GARDENS AND LANDSCAPE PLANTINGS

In many places the soil consists of layers of different texture or structure that interfere with the movement of water and air within the soil mass. Some soils are just naturally that way. Others are made that way by any one or a combination of things.



- Soil of one texture may be placed over soil of another texture during the development of sub-divisions.
- Driving, or continuous walking over wet soil compacts the surface.
- Farming operations have created compacted soil, or "plow pans".

Compaction of the surface can prevent water from soaking into the soil. A layer of dense soil, or even a layer of sand or gravel can prevent excess water from draining out of the soil above it. If excess water cannot drain out of soil, it soon becomes waterlogged and any roots that are growing there soon die for lack of air.

Problems caused by layered soil can be reduced by mixing the layers. Where large trees and shrubs are to be planted, this can be done by digging a hole six or eight feet across and six or eight feet deep, then mixing what came out into as uniform a mass as possible before replacing it back into the smaller hole. For smaller trees and shrubs a hole three or four feet across and three or four feet deep should be adequate. Thoroughly water several times to settle the soil before planting. Even after settling, there probably will be a mound for several years. Nothing should be done to alter this, since this will assure good surface drainage away from the root crown.

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