

## Reduce Your Water Needs with Compost

Most soils can be improved, and some can be improved dramatically, by adding compost. You can add compost to flower beds and gardens, as well as new plantings of lawn, trees, or shrubs. You can also get benefits from using it as a top dressing on existing lawns.

### What Is Compost?

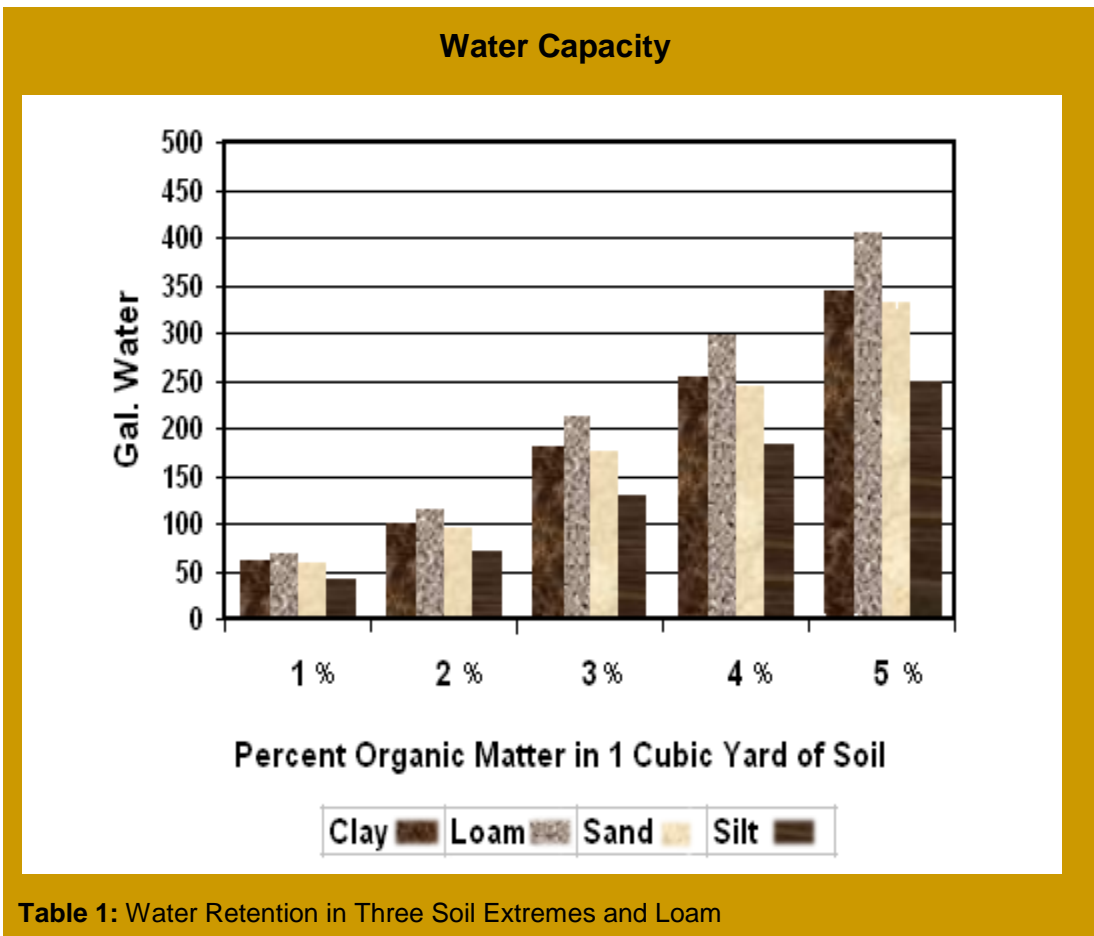
Compost is 100% organic matter. It can be purchased, and you can create it yourself from leaves and lawn clippings, along with vegetable waste products like cucumber peels and coffee grounds. Many web sites provide detailed instructions for composting. For starters, check [MasterComposter.com](http://MasterComposter.com) and [HowToCompost.org](http://HowToCompost.org) or search for "composting."

A compost bin is like a small silo, fermenting and decomposing organic matter. It can be a pile of leaves in a stray corner of the yard, or it can be a handmade or purchased bin with niceties like air circulation and paddles to turn the pile. It can be left alone under a black plastic cover (to protect it from Colorado's arid climate) or turned and watered frequently. The result in either case is a soil amendment or mulch rich in organic matter.

### So How Am I Saving Water?

Compost is also spongy and absorbent. A hundred pounds of average soil (a 1x10-foot row tilled six inches deep) with a pound of compost mixed in will hold an additional 33 pounds (4 gallons) of water. Take the organic content to five pounds, and that hundred pounds of soil will hold nearly two hundred pounds (25 gallons) of water! Compost is an excellent way to increase the water holding power of root systems, which is vital to growth.

Different soils gain more or less benefit in absorbency from compost. A clay or sand soil, with little natural organic material, benefits immensely; but a silty soil also can be improved. It can improve aeration in clay and improve nutrient retention in sandy soil. Table 1 below shows the relationship between the percent of compost and the amount of water that can be retained by each of four soil types.






Data chart adapted with permission from "Compost Chat," by A1 Organics of Eaton, CO (970-454-3492).

How much water you use is directly linked to the percentage of organic matter in your soil, which affects water retention. Sustained plant growth requires slow release of water into the soil. High retention reduces the need to replenish water; healthy plants in a moist bed rich in organic material need watering less frequently.

Compost is not the only organic soil amendment available, but it is one of the cheapest and earth-friendly. Recycle your vegetable waste and cut your water bills: What could be more win/win than that?

### What Kind of Soil Is This?

Most soils are a loam consisting of clay, silt, and sand, usually with some organic matter. A yard or garden is not likely to be pure clay or sand, and it is likely to contain natural organic matter, the humus that results from decomposition of leaf litter and debris. The table below shows three common types of soil, each predominantly clay, sand, or silt.

Three Common Soil Types		
Loamy Clay	Sandy Loam	Silty Loam
		
Clay soils are sticky and easy to shape. They often require sand as well as organic matter for full amendment. Clay is the gluey "peanut butter" of soils, but it can dry to a hard, almost impermeable surface.	Pure sand is visibly granular with no adhesiveness, gritty like dry salt or sugar. Most sandy soils will break up easily, even when wet. Water poured on them simply runs through.	Silt particles are the happy medium between the grit of sand and the glue of clay. Its granules are smaller than sand, but not as small as clay. A silty loam is smooth like clay but breaks up like sand.
<b>Table 2:</b> Typical Soil Types		

*Content on this page provided by Denver Water (Denver, CO).*