

Weekly Newsletter
from Agresource Inc.
for turning waste into
opportunity

Takeaway

In many ways, organic matter serves as the foundation of soil health. The more life and carbon we return to the soil, the better the soil can support plants, manage water, and withstand changing environmental conditions.

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*"Nature does not hurry,
yet everything is
accomplished."*

— Lao Tzu

How Soil Organic Matter aids in Water Retention

When rain falls on healthy soil, it does more than simply wet the ground — it gets stored, filtered, and made available for plants over time. One of the most important factors behind this process is organic matter.

Organic matter consists of decomposed plant material, compost, leaves, roots, and microorganisms that become integrated into the soil. Although it may only make up a small percentage of total soil volume, it has an enormous impact on how soil handles water.

Think of organic matter like a sponge mixed throughout the soil. Sandy soils normally allow water to move through quickly, while compacted clay soils often repel or trap water at the surface. Organic matter helps balance both extremes by improving soil structure and creating spaces that hold moisture while still allowing drainage and airflow.

As organic matter increases, soil develops better aggregation (small clusters of soil particles that create pore spaces). These pores act like tiny reservoirs, storing water after rainfall and slowly releasing it to plant roots. This means soils rich in organic matter stay moist longer during dry periods and are less prone to drought stress.

In many cases, increasing soil organic matter by just 1% can allow an acre of soil (at a six inch depth) to hold 25,000 gallons of additional water. That extra storage capacity can make a major difference during hot summer conditions or periods of limited rainfall.

Improved water holding capacity also benefits the environment. Healthy soils reduce stormwater runoff, minimize erosion, and help keep nutrients from washing into nearby waterways. Instead of water racing across the surface, organic-rich soils encourage infiltration, allowing rainfall to soak into the ground where it belongs.

Compost and other organic amendments play a major role in building this soil health. When compost is added to land, it contributes stable organic carbon, feeds beneficial microorganisms, and improves the soil's long-term structure. Over time, repeated additions can transform hard, compacted soils into healthier, more resilient growing environments.

Farmers, landscapers, gardeners, and municipalities all benefit from soils with higher organic matter. Crops become more resilient, irrigation demands can decrease, and landscapes are better equipped to handle both droughts and heavy rain events.

