COVER CROPS AT WORK

Increasing soil organic matter

THE TOOLKIT

Cover crops are tools to keep the soil in place, improve soil health, and reduce nutrient pollution from farm fields. The cover crop toolkit includes grasses, brassicas, legumes, and other broadleaf species.

SOIL ORGANIC MATTER

Soil organic matter is decomposed organic material (leaves, roots, microorganisms) that exists in the soil and acts as a reservoir of water and nutrients.

Across several studies, legume cover crops were found to increase levels of soil organic matter by 8 to 114%, and non-legume cover crops were found to increase soil organic matter levels by 4 to 62%.

WATER QUALITY BENEFITS

- Soil organic matter enhances soil processes and properties, and alleviates soil compaction.
- Organic matter also increases water retention capacity and can absorb and filter pollutants in runoff and groundwater.

By increasing soil organic matter, cover crops contribute to enhanced water quality and improved soil water and nutrient conditions.

All data comes from a bibliography compiled by the Sustainable Agriculture Research and Education Program (SARE) and the University of Missouri. This graphic was developed under Cooperative Agreement No.68-E-8-5610 awarded by the U.S. Environmental Protection Agency (EPA). Any views and suggestions on the document intended to improve the scientific analysis and technical accuracy of the document. The views expressed in this document are those of the authors and EPA does not endorse any products or commercial services mentioned in this publication.