THE 1% CHALLENGE:
TO INCREASE SOIL ORGANIC MATTER
BY 1% ON YOUR LAND.

This project is a long-term undertaking by farmers, gardeners, and landowners to increase their soil organic matter and improve their land through soil health* practices. This project is brought to you and supported by the Dallas Soil and Water Conservation District and the Natural Resources Conservation Service.

Soil organic matter is decomposed plant and animal material in your soil. This material gives your soil good tilth, a dark color, better water holding capacity, improved water infiltration rates, and it contributes to your overall soil fertility.

ARE YOU READY TO TAKE THE CHALLENGE?
Contact the USDA Service Center to talk with a conservationist about ways you can improve your organic matter, and to arrange for some field tests to establish your baseline soil health.

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*Soil health is defined as the continued capacity of soil to function as a living ecosystem that supports plant, animal, and human life into the future.
How can you increase soil organic matter?
There are a number of ways to accomplish this goal, but some of the tools you might use are:

- Keep soil covered & plant high-carbon cover crops
- Crop diversity
- Incorporate grazing &/or spread manure
- Reduce tillage & soil disturbance

How much will it take to increase my soil organic matter by 1%?
Soil organic matter is increased through substantial increases in organic materials (roots, residue, compost, manure, etc.) to the soil. However, not all of the material you add to your soil will stay in the soil. Because about 10% of your organic additions will stick around, getting that 1% increase will require 200,000# of material, or the equivalent of 167 round bales of cornstalks per acre.

Sound impossible? It’s not!
Farmer Thomas in Dallas County is currently increasing his soil organic matter at a rate of 0.1% per acre per year on his row crop fields. He is achieving this through no till corn and soybean production and no till cover crop mixes each fall.

Show me it’s worth it.
Each year, 1% of soil organic matter per acre releases $15.70 worth of nutrients.

Eliminating tillage will save you approximately $3.50 in fuel costs per acre per year.

Utilizing cover crops may reduce your need for herbicides by about $16.20 per acre per year.

An average increase of 5 bu/ac in soybean yields following cover crops can earn you about $50 per acre per year.

PLUS, this significant increase in organic matter can hold 9/10” of plant-available water, reducing the potential for erosion by runoff by 15%.

Based on these calculations, in an average year of a corn/soybean rotation, your bottom line could improve by more than $60 per acre!