USDA United States Department of Agriculture

1% CHALLENGE PRACTICE CHECKLIST

DON'T TREAT YOUR SOIL LIKE DIRT

Managing for soil health to improve organic matter is one of the easiest and most effective ways for farmers to increase soil productivity and profitability while improving the environment. Using as many of the five basic soil health principles listed below is key:

1. **Keep the soil covered as much as possible.**
2. **Disturb the soil as little as possible.**
3. **Keep plants growing through the year to feed the soil**
4. **Diversify as much as possible using crop rotation and cover crops.**
5. **Incorporate grazing when possible.**

This document includes a list of core practices that form the basis of a Soil Heath Management System to help you optimize your inputs, protect against drought and increase production. Use this practice checklist to determine which soil health practices you can add to your operation, or improve, to increase your soil organic matter.

WHAT IS IT?		WHAT DOES IT DO?	SH PRINCIPLES & NOTES
CONSERVATION CROP ROTATION Growing a diverse number of crops in a planned sequence in order to increase soil organic matter and biodiversity in the soil.		• Increases nutrient cycling • Manages plant pests (weeds, insects and diseases) • Reduces sheet, rill and wind erosion • Holds soil moisture • Adds diversity so soil microbes can thrive	1 3 4
COVER CROP An un-harvested crop grown as part of a planned rotation to provide conservation benefits to the soil		• Reduces soil erosion • Improves soil biology • Improves water infiltration • Provides livestock grazing • Supresses weeds • Reduces compaction • Increases nutrient cycling	1 3 4 5
NO TILL/STRIP TILL A way of growing crops without disturbing the soil through tillage		• Improves water holding capacity of soils • Reduces soil erosion • Reduces energy use • Decreases compaction • Saves input costs	1 2

PRACTICE CHECKLIST

WHAT IS IT?		WHAT DOES IT DO?	SH PRINCIPLES & NOTES
CONSERVATION COVER Establishing and maintaining permanent cover of grasses, legumes and forbs.		• Reduces soil erosion • Holds soil moisture • Enhances plant diversity • Manages plant pests	1 2 3 4 5
FORAGE & BIOMASS PLANTING Planting grass and legumes suitable for pasture, hay or biomass production. (Not for annually planted and harvested crops.)		• Reduces soil erosion • Holds soil moisture • Improves water infiltration • Provides forage	1 2 3 4 5
GRAZING Managing the harvest of vegetation using grazing animals. Often achieved through rotational grazing, with pastures divided by fencing into four or more paddocks.		Improves or maintains: • species composition • plant community vigor • quality & quantity of forage • water quality & quantity	1 2 3 4 5
MULCHING Applying plant residues, compost and manure to the soil surface to help build residueon the soil's surface.		• Reduces erosion from wind and rain • Moderates soil temperatures • Controls weeds • Conserves soil moisture • Reduces dust	1
NUTRIENT MANAGEMENT Managing the amount, source, placement, and timing of plant nutrients and soil amendments.		• Increases plant nutrient uptake • Improves the physical, chemical and biological properties of the soil • Budgets, supplies and conserves nutrients for plant production	1 2 3
PEST MANAGEMENT Managing pest by following an ecological approach that promotes the growth of healthy plants with strong defenses, while increasing stress on pests and enhancing the habitat for beneficial organisms.		• Scouting & spot treatment for threatening pest can save money. • Improves water quality when precautions are taken to keep chemicals from leaving the field. • Reduces over-application.	4