



United States Department of Agriculture
Natural Resources Conservation Service

CSP Job Sheet S-1

SOIL MANAGEMENT ENHANCEMENT

February 2006

NEBRASKA

Name: _____

Soil management enhancements are those which improve the overall condition of the soil as determined using the Soil Conditioning Index (SCI). There are nine (9) levels of enhancement available depending on the calculated SCI for a given soil and crop management system.

Level 1: a soil conditioning index of 0.1 to 0.3	Level 2: a soil conditioning index of 0.4 to 0.6
Level 3: a soil conditioning index of 0.7 to 0.9	Level 4: a soil conditioning index of 1.0 to 1.2
Level 5: a soil conditioning index of 1.3 to 1.5	Level 6: a soil conditioning index of 1.6 to 1.8
Level 7: a soil conditioning index of 1.9 to 2.1	Level 8: a soil conditioning index of 2.2 to 2.4
Level 9: a soil conditioning index of 2.5 or greater	

Soil Conditioning Index

The Soil Conditioning Index (SCI) is a tool that can predict the consequences of cropping systems and tillage practices on the trend of soil organic matter. Organic matter is a primary indicator of soil quality and an important factor in carbon sequestration and global climate change.

The SCI has three main components: 1) the amount of organic material returned to or removed from the soil; 2) the effects of tillage and field operations on organic matter decomposition; and 3) the effect of predicted soil erosion associated with the management system. The SCI gives an overall rating based on these components. If the rating is a negative value, the system is predicted to have declining soil organic matter. If the rating is a positive value, the system is predicted to have increasing soil organic matter.

The SCI is a quick way to characterize the organic matter dynamics of a farming system. Organic matter is a critical component of soil function for several reasons. Surface residue protects soil from the impact of rain and wind. As residue decays, it feeds microbes that improve soil structure and infiltration, and thus reduces runoff. Soil organic matter contributes to nutrient and water holding capacities. Regular inputs of organic material foster a diverse microbial community that supports plant health and productivity.

(OVER)

Required Elements:

- Maintain crop rotation and tillage documented on CSP Worksheet 3A or 3B (Crop rotation and tillage inventory) on the cropland acres listed.

Documentation Required:

Attach map and list each tract and field that is applicable; and complete Crop Rotation and Tillage Inventory Worksheets from the Nebraska Conservation Security Program (CSP) – 2006 CSP Worksheet 3A (Non-irrigated Fields) and/or CSP Worksheet 3B (Irrigated Fields).

Tract No.(s)	Field No.(s)	Acres in the field

Certification:

I certify that I have implemented the crop management practices as documented on the Crop Rotation and Tillage Inventory Worksheets from the Nebraska Conservation Security Program (CSP) – 2006 CSP Worksheet 3A (Non-irrigated Fields) and/or 2006 Worksheet 3B (Irrigated Fields).

Name: _____ Date: _____