



United States Department of Agriculture  
Natural Resources Conservation Service

# CSP Job Sheet S-1

## SOIL MANAGEMENT ENHANCEMENT

August 2005

### 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 twenty-five (25) levels of enhancement available depending on the calculated SCI for a given soil and crop management system.

Level	Rate	Level	Rate
Level 1: a soil conditioning index of 0.1	1.16	Level 14: a soil conditioning index of 1.4	16.24
Level 2: a soil conditioning index of 0.2	2.32	Level 15: a soil conditioning index of 1.5	17.40
Level 3: a soil conditioning index of 0.3	3.48	Level 16: a soil conditioning index of 1.6	18.56
Level 4: a soil conditioning index of 0.4	4.64	Level 17: a soil conditioning index of 1.7	19.72
Level 5: a soil conditioning index of 0.5	5.80	Level 18: a soil conditioning index of 1.8	20.88
Level 6: a soil conditioning index of 0.6	6.96	Level 19: a soil conditioning index of 1.9	22.04
Level 7: a soil conditioning index of 0.7	8.12	Level 20: a soil conditioning index of 2.0	23.20
Level 8: a soil conditioning index of 0.8	9.28	Level 21: a soil conditioning index of 2.1	24.36
Level 9: a soil conditioning index of 0.9	10.44	Level 22: a soil conditioning index of 2.2	25.52
Level 10: a soil conditioning index of 1.0	11.60	Level 23: a soil conditioning index of 2.3	26.68
Level 11: a soil conditioning index of 1.1	12.76	Level 24: a soil conditioning index of 2.4	27.84
Level 12: a soil conditioning index of 1.2	13.92	Level 25: a soil conditioning index of 2.5	29.00
Level 13: a soil conditioning index of 1.3	15.08		

### 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

**NEBRASKA**

**Name:** \_\_\_\_\_

to nutrient and water holding capacities. Regular inputs of organic material foster a diverse microbial community that supports plant health and productivity.

**Documentation Required:** Attach map and list each tract and field that is applicable, and complete Crop Rotations and Field Operations Information Sheets from the Nebraska Conservation Security Program (CSP) Soil and Water Quality Documentation Workbook for the entire crop rotation for each field.

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 Rotations and Field Operations Information Sheets for the listed fields in the Nebraska Conservation Security Program (CSP) Soil and Water Quality Documentation Workbook to decrease the STIR value to less than 10.

**Name:** \_\_\_\_\_ **Date:** \_\_\_\_\_