

SOIL MANAGEMENT (CSP Enhancements)

February 2006

Enhancement Activity Job Sheet

MS-CSPESM-JS



Enhancement Activities

Enhancement activities refer to actions that provide resource benefits beyond the level prescribed by NRCS Conservation Practice Standards. Once implemented Enhancement Activities should result in an observable or measurable improvement to the condition of one or more of the soil, water, air, plant or animal resources, or provide for more efficient resource utilization and/or energy conservation.

Enhancement Activity Benefits

Actions that control erosion, reduce tillage operations, or increase organic matter can result in the following benefits to the producer and the environment:

- Sustained productivity
- Enhanced water quality
- Improved nutrient use
- Improved water infiltration and storage

CSP Payments

You can earn Soil Management enhancement payments by:

Decreasing your Soil Tillage Intensity Rating (STIR). STIR ratings can be decreased by actions such as:

- Reducing field operations.
- Using a GPS controlled traffic guidance system.

Improving your Soil Conditioning Index (SCI) score. SCI scores can be increased by actions such as:

- Increasing organic matter in the soil.
- Leaving crop residues on the soil surface,
- Using of cover crops
- Introducing plants that produce more biomass,
- Applying animal manure or other carbon-rich wastes

Client's Acknowledgement Statement:

I have used the following Soil Management activities and understand the requirements of the selected activities (Check all that apply):

- Managed field operations to reduce compaction (Worksheet 1)
- Adopted Guided Traffic system (Worksheet 2)
- Improved Soil Condition Index Score

I agree that the following information will be provided to NRCS upon request:

- Written documentation of the activity performed (use attached worksheets or equivalent).
- Copies of dated receipts for equipment or services purchased.

I understand that it is my responsibility to obtain all necessary permits and to comply with all ordinances and laws pertaining to the application of these activities.

Accepted by: /s/ _____ Date: _____

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Certification by NRCS:

I have completed a review of the information provided by the client and certify this activity has been applied.

Activity	Name and Title	Date:

Name:

Worksheet 1 – ESM40 Improve Soil Condition Index Score

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

Payment schedule:

- \$2.90/ac for a Soil Condition Index (SCI) between 0.1 and 0.4
- \$7.54/ac for a Soil Condition Index (SCI) between 0.5 and 0.8
- \$12.18/ac for a Soil Condition Index (SCI) between 0.9 and 1.2S
- \$16.82/ac for a Soil Condition Index (SCI) between 1.3 and 1.6
- \$21.46/ac for a Soil Condition Index (SCI) between 1.7 and 2.0
- \$26.10/ac for a Soil Condition Index (SCI) between 2.1 and 2.4
- \$29.00/ac for a Soil Condition Index (SCI) 2.5 or greater

The Soil Conditioning Index 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.

Your SCI rating will be calculated by NRCS based on crop management information you supply. Payments will be based on the SCI over the entire rotation.

Field Operations Certification

I certify that I have followed the field operations for my crop rotation as specified on the attached RUSLE2 report (provided by NRCS).

Name: _____ Date: _____

Name:

Worksheet 2 – ESM41 Manage field operations to reduce compaction

Payment schedule: For managing field operations to reduce soil compaction.

- \$0.50/Ac. for a Soil Tillage Intensity Rating (STIR) between 31 and 60.
- \$1.00/Ac for a Soil Tillage Intensity Rating (STIR) between 16 and 30
- \$2.00/Ac for a Soil Tillage Intensity Rating (STIR) of 15 or less

Soil Tillage Intensity Rating (STIR) is an index used to evaluate the kind and number of ground disturbing tillage passes used to produce a crop. Because STIR calculations consider operating speed of equipment, tillage type, tillage depth and the percent of surface area disturbed, the results reflect how much the soil is being compacted in the process of growing a crop. A low STIR rating is an indication of reduced potential for compaction.

Your STIR rating will be calculated by NRCS based on tillage information you supply. Payments will be based on the STIR over the entire rotation.

Field Operations Certification

I certify that I have followed the field operations for my crop rotation as specified on the attached RUSLE2 report (provided by NRCS).

Name: _____ Date: _____

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Worksheet 3 – ESM42 Adopt GPS controlled traffic guidance system

Payment schedule: For using GPS or other similar guided measure technology to reduce soil compaction by controlling areas of traffic.

- \$1.00/Ac. for a Soil Tillage Intensity Rating (STIR) between 31 and 60.
- \$2.00/Ac for a Soil Tillage Intensity Rating (STIR) between 16 and 30
- \$4.00/Ac for a Soil Tillage Intensity Rating (STIR) of 15 or less

Global Positioning System (GPS) controlled guidance systems such as John Deere AutoTrac, New Holland IntelliSteer, Case/IH AgGPS® Autopilot use Earth-orbiting satellites and GPS receivers to translate radio signals into precise geographic coordinates that can be used to guide traffic patterns on cropland fields and reduce repeat passes of equipment reducing soil compaction.

Your STIR rating will be calculated by NRCS based on tillage information you supply. Payments will be based on the STIR over the entire rotation.

Use this (or similar) table to document where Precision Ag techniques are used.

Tract & Field #s	Acres	Crop Grown	Type of System Used	Crop Year Used
T123 Field 4	180 <i>Example</i>	Winter Wheat	John Deere AutoTrac	2004

Guided Traffic System Certification

I certify that I have used a Guided Traffic System on the fields listed in the table above.

Name: _____ Date: _____