



NUTRIENT & WASTE MANAGEMENT (CSP Enhancements)

March 2005

Enhancement Activity Task Sheet

WA-CSPENM-TS



Photo courtesy of NRCS

Enhancement Activities

Enhancements activities refer to actions that exceed the requirements of the Nutrient Management Practice Standard 590. Once implemented on a conservation management unit (CMU), these activities should result in a measurable improvement to the condition of soil, water, air, plant, and/or animal resources, or provide for more efficient resource utilization and/or energy conservation.

Enhancement Activity Benefits

Enhancement activities associated with Nutrient & Waste Management such as using precision agriculture techniques, managing setbacks and filter strips, and/or using controlled release fertilizer materials can provide the following benefits to the producer and the environment:

- Cleaner ground and surface water
- Reduced costs
- Improved soil health

CSP Payments

You can earn enhancement payments by conducting any of the following activities:

- Manage nutrient requirements through use of precision agriculture techniques.
- Manage soil pH utilizing soil test recommendations
- Manage nutrients by applying annual results of complete soil tests.
- Manage timing and rate of application of nutrients by using tissue sampling and analysis.
- Manage nitrogen applications by using split application according to crop needs.
- Utilize nitrification inhibitors and controlled release fertilizer materials to improve nitrogen use efficiency.
- Manage setbacks for nutrient applications to exceed recommended minimum distance from ditches or streams.
- Manage crop inputs to meet organic crop certification requirements.
- Manage herbaceous cover to utilize excess nutrients and reduce erosion.
- Manage yield variability by using yield monitoring techniques.
- Manage soil quality by applying compost.

CSP Enhancements earnings are subject to payment caps. Your actual payment will depend on your CSP Tier level and the number of acres enrolled.



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Client's Acknowledgement Statement:

I am currently applying or agree to apply the following Nutrient Management activities and understand the requirements of the selected activities (Check all that apply):

Currently Apply	Agree to Apply	
<input type="checkbox"/>	<input type="checkbox"/>	Manage nutrients with the use of precision agriculture techniques. (Worksheet 1)
<input type="checkbox"/>	<input type="checkbox"/>	Manage soil pH utilizing soil test recommendations. (Worksheet 2)
<input type="checkbox"/>	<input type="checkbox"/>	Manage nutrients by applying annual complete soil tests. (Worksheet 3).
<input type="checkbox"/>	<input type="checkbox"/>	Manage nutrient applications by using plant tissue testing. (Worksheet 4).
<input type="checkbox"/>	<input type="checkbox"/>	Manage nitrogen application by using split application techniques. (Worksheet 5).
<input type="checkbox"/>	<input type="checkbox"/>	Utilize nitrification inhibitors and controlled release fertilizer materials to improve nitrogen use efficiency. (Worksheet 6).
<input type="checkbox"/>	<input type="checkbox"/>	Manage setbacks for nutrient applications to exceed recommended minimum distance from ditches or streams. (Worksheet 7).
<input type="checkbox"/>	<input type="checkbox"/>	Manage nutrients to meet organic certification requirements. (Worksheet 8).
<input type="checkbox"/>	<input type="checkbox"/>	Manage herbaceous cover to utilize excess nutrients and reduce erosion. (Worksheet 9).
<input type="checkbox"/>	<input type="checkbox"/>	Manage yield variability by using yield monitoring techniques. (Worksheet 10).
<input type="checkbox"/>	<input type="checkbox"/>	Manage soil quality by applying compost. (Worksheet 11).

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 CSP Enhancements earnings are subject to payment caps and that my actual payments will depend on my CSP Tier level and the number of acres enrolled.

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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Worksheet 1: Manage nutrient requirements through the use of precision agriculture techniques

Payment = \$4.00/acre

Description: Collect soil samples using grid and/or zone sampling techniques to document soil variability within a CMU. Use sample results to create nutrient recommendations for each sampling area. Use a map of recommendations to control GPS guided variable application of nutrients.

Requirements: Record on the jobsheet, the number of samples taken, method of application and the variable rate application date. Provide plan view map printouts of soil sample results and nutrient application maps using operator's mapping/application software.

Worksheet 2: Manage soil pH utilizing soil test recommendations.

Payment = \$3.00/acre

Description: Soil salinity, alkalinity and acidity can have a dramatic influence on the availability of nutrients in the soil and nutrient use efficiency of crops. Soil biology and physical characteristics that affect crop growth are also affected. Soil amendments such as gypsum, lime materials and sulfur products can be used to improve soil conditions affecting pH and crop growth.

Requirements: Use a current soil test to measure pH and apply soil amendments according to land grant university guidance. Document the soil pH, sample date, recommended amendment and application rate and date.

I certify that I have soil tested for soil pH and have applied soil amendments to improve the range of pH to an optimum level for crop growth and soil quality according to land grant university guidelines and recorded in the above table.

of pH to an optimum level for crop growth and soil quality according to land grant university guidelines and recorded in the above table.

Worksheet 3: Manage nutrients by applying annual results of complete soil tests.

Payment = \$3.00/acre

Description: Annually monitor soil test values for nutrients that are necessary for crop growth, but are seldom evaluated. Apply micronutrients as recommended by the soil test result and land grant university guidance.

Requirements: Use an annual soil and/or plant sampling schedule. Use test results to modify the nutrient budget and recommendations for nutrient applications. Use the test results and Land grant university guidance to optimize crop growth and reduce the impact to surface and ground water quality.

**NUTRIENT & WASTE MANAGEMENT (CSP Enhancements)
Enhancement Activity Task Sheet**March 2005
WA-CSPENM-TS**Worksheet 4: Manage timing and rate of nutrient application by using tissue testing**

Payment = \$6/Acre/crop year to utilize results of analysis of plant tissues.

Description: Utilize tissue sampling from representative plants in the growing crop. Information is used to adjust timing and rate of nutrient applications to match crop uptake requirements for the nutrients of concern. Tissue tests can also be used to diagnose deficiencies and/or toxicities that can provide information concerning harvested crop usage, nutrient imbalances and adjustments in nutrient management for the next crop in the rotation.

Requirements: Tissue samples represent areas that have similar soils and management. A minimum of 3 plant tissue samples will be collected and analyzed per CMU. Recommendations of rate and timing of Nitrogen application will be based on current land grant university guidelines. Document sample date.

Worksheet 5: Manage nitrogen applications by using split application according to crop needs.

Payment = \$4/Acre/crop year.

Description: Split application of nitrogen provides sufficient nutrients for establishment of fall and spring seeded crops. Split application reduces loss from runoff or leaching of nutrients. The recommendation of split application timing and the rates for each application is intended to apply nutrients as close to the time of crop uptake as possible. This reduces the potential for off-site loss of nutrients and improves nutrient use efficiency if timed properly.

Requirements: Current crop, application date and rates N applications.

Worksheet 6: Utilize nitrification inhibitors and controlled release fertilizer materials to improve nitrogen use efficiency.

Payment = \$4/Acre

Description: Use a nitrification inhibitor with commercial and/or organic materials to reduce potential loss of Nitrogen to volatilization and leaching. Controlled release fertilizer materials with polymer and/or sulfur based coatings on dry fertilizer provides nutrients at a rate that is closer to crop growth rates. Controlled release materials improve nutrient use efficiency.

Requirements: For controlled release materials and nitrification inhibitors, record the crop, date of application, product used and rate. Incorporate these efficiency materials into the total soil/crop nutrient budget created from yield goals and soil test nutrient levels.

**NUTRIENT & WASTE MANAGEMENT (CSP Enhancements)
Enhancement Activity Task Sheet****March 2005
WA-CSPENM-TS****Worksheet 7: Manage setbacks for nutrient applications to exceed recommended minimum distance from ditches or streams.**

Payment = \$100 / acre

Description: Buffers are established adjacent water bodies to trap sediment and attached pollutants, and improve water quality. Buffers must meet the requirements of the Riparian Forest Buffer (391), Riparian Herbaceous Buffer (390), Field Borders (386) or Hedge Row Plantings (422). Reduce the potential for off site movement of applied nutrients to surface water by increasing the width of these buffers.

Attach a map which shows the fields and location of application setbacks.

Enhancement applies primarily to application of animal waste materials.

Worksheet 8: Manage crop inputs to meet organic crop state certification requirements.

Payment = \$10/acre to maintain state organic certification requirements.

Description: Certified organic is a goal for many producers. The requirements to achieve this certification and maintain it in an economical manner is difficult. Challenges include the exclusive use of natural nutrient products within a nutrient management system designed to improve soil quality and productivity over time. A systems approach to management is needed which includes pest management, crop rotation, herbaceous cover, etc.

Requirement: Document Organic state certification for fields enrolled in CSP program.

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Payment = \$10/Acre for the year in which a cover crop is planted and maintained for a field.

Description: Herbaceous cover crops are often used in rotations which include land application of animal waste. A high phosphorus uptake crop like Triticale, legumes or Stevens Wheat is seeded as soon after harvest of the previous crop as possible. Generally the double crop is grown through the fall and winter then harvested as haylage or killed chemically in the spring prior to seedbed preparation of the next crop. Green manure crops in the rotation can improve soil fertility and soil quality.

Requirements: A green manure crop is or will be grown and directly planted into or tilled into soil between crops grown 50% of the time in the rotation. Documentation Needed: A note will be entered on the jobsheet indicating the type of cover planted and the date.

NOTE: Payments are made in years when cover crop is planted.

Worksheet 10: Manage yield variability by using yield monitoring techniques.

Payment = \$2.00/acre/crop year to use yield monitoring techniques.

Description: Use harvester mounted yield monitor system for grain, oil seed and bulk crops such as potatoes. For pasture and hay crops, use clipping measurements as estimates of yield from no less than 3 management units within a CMU and for each cutting. The sampling areas should represent delineated soil map units, map unit inclusions or areas of uniform landscape position.

Requirements: Minimum of 3 sample areas per conservation management unit (CMU). Minimum clipping yield is for each cutting for hay land or 3 sample dates during growing season for pasture land. Record crop, harvest dates along with minimum, maximum and average annual yields for the CMU.

Worksheet 11: Manage soil quality by applying compost.

Payment = \$5.00/acre

Description: Composted plant and animal waste materials improve soil quality by providing slow release nutrients and improved OM to the soil. Composting reduces the volume of animal wastes which allows transportation costs to be reduced.

Requirements: Record date of application, crop to be grown and rate applied. Provide nutrient analysis of the composted material.