



United States Department of Agriculture
Natural Resources Conservation Service

CSP Job Sheet N-1

NUTRIENT MANAGEMENT ENHANCEMENT

November 2005

NEBRASKA

Name: _____

Decrease potential for water quality degradation through crop nutrient and soil amendment application based on site specific needs through the use of grid soil sampling or zone management

Payment = _____ / Acre / Year to apply nutrients based on grid soil sampling or zone management.

Soil Sampling Requirements

- Producers have the option to use a geo-referenced (GIS) zone management, grid soil sampling, or a combination of the two (i.e. deep nitrates may be based on zone management, and surface tests on grids).
- Grid soil sampling areas (grids) will be 5 acres or less and geo-referenced zone management soil sampling areas (zones) will be 20 acres or less.
- Geo-referenced zone management, will use soil sampling zones based on GIS yield maps and/or infrared maps, similar cropping practices (i.e. past crops, manure and fertilizer management), and similar site and soil conditions throughout the entire zone (i.e. similar soil texture, soil color, organic matter, slope, drainage, etc.).
- Surface soil tests for P, K, pH and micronutrients will be taken at least once every five years.
- Annual deep nitrate soil samples (0-36 inches or deeper on irrigated cropland, and 0-24 inches or deeper on dryland cropland) will be taken from November 1 through the spring every year that corn, milo, or other non-legume crops are planted (spring tests are required on sandy soils, nitrate tests are not needed for legumes).
- When recent (3 years old or less) deep nitrate soil test values tested low (6ppm or less), deep nitrate soil samples are not necessary on dryland cropland without manure history.
- Procedures published by the University of Nebraska (Nebguide G91-1000-A "Guidelines for Soil Sampling in Nebraska") are to be followed by the individual taking the soils samples.

Nutrient Application Requirements

- All crop nutrients will be precision applied using a variable rate applicator that is geo-referenced.
- Phosphorus will be applied in amounts equal or less than the University of Nebraska recommended rates.
- Nitrogen will be applied at varying rates on each soil sampling area based on University of Nebraska recommendations.
- All sources of N including irrigation water N content, legume credits, manure N, residual profile N, and organic matter mineralization, is accounted for in determining N application rates in each zone/grid.

- To maximize Nitrogen use efficiency, Nitrogen will be applied using one of the following methods/combinations: spring only applications, growing season only applications (i.e. side-dress or chemigation through sprinkler irrigation systems); split application (spring and growing season required on coarse textured soils i.e. sand, loamy sand, sandy loam soils, fall and growing season acceptable on heavy soils); and/or chemigation through sprinkler irrigation systems (growing season only) for nitrogen in summer row crops.
- Nitrogen will be split applied (planting time and late winter to early spring), or applied in the late winter to early spring for fall planted small grain.

Documentation Required: Copy of soil tests, and farmer or crop consultant certification of nutrient application with precision agriculture nutrient application based on grid soil sampling and/or geo-referenced zone management. Use the following Tables for documentation of sampling and application. An example is provided to assist you.

Tract & Field #s or Names	Acres represented by zone/grid soil test	Date of zone/grid soil test	Soil test lab #
T486 - 1	15 acre zones	09/01/03	17585
Smith farm - fld#2	3 acre grids	03/01/04	16854
Tract & Field #s or Names	Acres represented by zone/grid soil test	Date of zone/grid soil test	Soil test lab #

