

**Natural Resources Conservation Service
Report To
Papio-Missouri River NRD Board
August 8, 2013
Neil Jensen, District Conservationist**



Conservation Stewardship Program (CSP)

The Conservation Stewardship Program (CSP) is a voluntary conservation program that encourages producers to address resource concerns in a comprehensive manner by undertaking new conservation activities; and improving, maintaining, and managing existing conservation activities.

Plant tissue testing is one of the activities that producers in the Papio-Missouri River NRD are using to improve the water quality in the district.

Water Quality Enhancement Activity – WQL04 – Plant tissue tests and analysis to improve nitrogen management



Photo Courtesy of USDA NRCS.

Enhancement Description

Use plant tissue tests to adjust nitrogen application rates.

Benefits

The use of either plant tissue testing or leaf tissue testing is an adaptive nitrogen management technique used to adjust nitrogen application rates in-season (leaf tissue test) or for the following crop year (stalk test). Test such as these help provide a thorough analysis of how nitrogen is being used by the current crop, giving a basis for adjustments to nitrogen rates. The end result is a more complete utilization of the nitrogen applied and less nitrogen remaining in the soil to be lost to the environment through nitrate leaching or soil emissions of nitrous oxide.

This enhancement requires a current soil test and the use of one of the three tissue testing options listed below.

1) Cornstalk Nitrate Testing and Analysis

Use the following table to determine management suggestions. If any of the results are in either the low or excess category, conduct a thorough review of the nitrogen fertilization program to determine where improvements could be made.

<i>Plant Nitrogen Status</i>	<i>Stalk Nitrate (ppm)</i>	<i>Management Suggestions</i>
Low	0-250	High probability that Nitrogen is deficient
Marginal	250-700	Nitrogen Management should be re-evaluated
Optimal	700-2000	Yields are not limited by Nitrogen
Excessive	Greater than 2000	Nitrogen supply greater than needed.

2) Real Time Monitoring of Crop Nitrogen Status using a Chlorophyll Meter

The chlorophyll meter allows fine-tuning nitrogen management by monitoring leaf greenness throughout the growing season allowing early detection of potential nitrogen deficiencies so that they may be corrected before a yield reduction occurs. They work best for situations where nitrogen can be incrementally applied to the growing crop, such as with fertigation, but can also be used to time the application of supplemental nitrogen using high clearance application equipment.

3) Plant Tissue Testing & Analysis

Plant tissue analysis can be an important tool in diagnosing crop growth problems and, when coupled with soil testing, useful in refining nutrient inputs. The primary limitation with this method is the lag time from submitting the sample to the lab and getting the results.



Photo Courtesy of USDA NRCS.

USDA Announces Results for 45th Conservation Reserve Program General Sign-Up

Agriculture Secretary Tom Vilsack today announced that the U.S. Department of Agriculture (USDA) will accept 1.7 million acres offered under the 45th Conservation Reserve Program (CRP) general sign-up.

Farmers within the Papio-Missouri River NRD have offered just over 1100 acres as part of the 45th General Sign-up.

American farmers and ranchers continue to recognize the importance of protecting our nation's most environmentally sensitive land by enrolling in CRP. CRP is a voluntary program that allows eligible landowners to receive annual rental payments and cost-share assistance to establish long-term, resource-conserving covers on eligible farmland throughout the duration of their 10 to 15 year contracts.

Under CRP, farmers and ranchers plant grasses and trees in fields and along streams or rivers. The plantings prevent soil and nutrients from washing into waterways, reduce soil erosion that may otherwise contribute to poor air and water quality, and provide valuable habitat for wildlife. In 2012, CRP helped to reduce nitrogen and phosphorous losses from farm fields by 605 million pounds and 121 million pounds respectively. CRP has restored more than two million acres of wetlands and associated buffers and reduces soil erosion by more than 300 million tons per year. CRP also provides \$2.0 billion annually to landowners—dollars that make their way into local economies, supporting small businesses and creating jobs.

In addition, CRP sequesters more carbon dioxide than any other conservation program in the country, and also reduces both fuel and fertilizer use. Yearly, CRP results in carbon sequestration equal to taking almost 10 million cars off the road.

USDA selected offers for enrollment based on an Environmental Benefits Index (EBI) comprised of five environmental factors plus cost. The five environmental factors are: (1) wildlife enhancement, (2) water quality, (3) soil erosion, (4) enduring benefits, and (5) air quality.



Photo Courtesy of USDA NRCS.

NEBRASKA NRCS ANNOUNCES AVAILABILITY OF FUNDS FOR WINDBREAK RENOVATIONS

Applications for funds received by August 14, 2013 will be considered for funding at this time.

The USDA Natural Resources Conservation Service (NRCS) has funding available for landowners and operators to restore windbreaks.

Windbreaks are one or more rows of trees or shrubs planted to provide shelter from the wind and to protect soil from erosion. They are commonly planted around the edges of fields on farms. If designed properly, windbreaks around a home can reduce the cost of heating and cooling and save energy. Other benefits include providing habitat for wildlife.

Interested individuals may file an application at any time, but the ranking of applications on hand to receive funding will begin Aug. 14, 2013. The first step is to visit your local NRCS field office and complete an application.



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