

National Nutrient Management Strategy

September 1, 2010

Recently, the Conservation Effects Assessment Program (CEAP) report for the Upper Mississippi River Basin clearly indicated that combinations of conservation practices that work together are more effective than single conservation practices. Environmental concerns over excess nutrients lost from cropping systems has intensified since 1996 and is the major focus of several regional scale efforts to improve the environment including the Chesapeake Bay Watershed Initiative, the Mississippi River Basin Healthy Watershed Initiative, and the Great Lakes Restoration Initiative.

Research shows that nitrogen stabilizers are available to reduce nitrogen losses. Three classes of stabilizers are available. They are nitrification inhibitors, urease inhibitors, and slow or time release nitrogen fertilizers.

NRCS is cooperating with The Fertilizer Institute (TFI) that will address training, education, and partnering with private industry to increase adoption of nutrient management.

To advance nutrient management and address growing concerns about the environmental impacts of nutrients lost from cropping systems, NRCS is accelerating its program policy regarding financial assistance available under the Environmental Quality Incentives Program (EQIP). Beginning in FY2011, in order to qualify for cost share on practice code 590 – Nutrient Management under this Nutrient Management Strategy, the following core practices will be required:

Cropland Nutrient Management System Core Practices	
Practice Code	Practice Name
PART 1. "Non-Organic" Cropland Basic Core Practices	
Apply the Basic 590 or Enhanced 590, plus 449 (where applicable) and 554 (where applicable) The "Support Practices" are additional practices to consider for site specific needs.	
590 Basic	Nutrient management (4 Rs) Nitrification inhibitors should be added for Fall applied nitrogen (This applies to fall applied N for spring planted crops. This does not apply to fall planted crops e.g., wheat or forage crops. It also does not apply in those areas of the US where Extension does not recommend the use of nitrification inhibitors. Urease inhibitors should be applied with UAN or Urea that is surface applied in Spring
590 Enhanced	Nutrient Management-Spring application of N only for spring planted crops. This does not apply to fall manure application. Follow state 590 criteria for manure application rates, method of application, and timing. (add one or more) <ul style="list-style-type: none"> • Grid or zone soil testing with variable rate nutrient application • Use chlorophyll readers (e.g., Greenseeker) technology to vary nitrogen application • Controlled Release N fertilizer • Pre-sidedress nitrogen test in areas where it is not already a part of the basic LGU recommendation
449	Irrigation Water Management (Applies to Irrigated Land Only)
554	Drainage Water Management (DWM) (Applies to Drained Land Only). DWM "mandatory where feasible" for the site. This applies to both surface and subsurface drainage.

	<ol style="list-style-type: none"> 1. Assumes erosion is controlled as close as possible to T. The goal is "T" but a few tons over "T" is acceptable if feasible alternatives are not available to achieve "T". 2. Assumes concentrated flow erosion is controlled / stabilized as much as possible. Ephemeral erosion that forms annually should be controlled to limit nutrient transport.
<p align="center">PART 2. "Organic or Transition to Organic" Cropland Basic Core Practices Apply the Basic 590 or Enhanced 590, plus 449 (where applicable), 554 (where applicable), 328, and 340 as Core Practices. The "Support Practices" are additional practices to consider for site specific needs.</p>	
590 Basic	Nutrient management (4 Rs)
590 Enhanced	Nutrient Management (add one or more) <ul style="list-style-type: none"> • Slow release nitrogen products (approved by "organic" certification entity) • Pre-sidedress nitrogen test in areas where it is not already part of the basic LGU recommendation to determine additional nitrogen needs.
449	Irrigation Water Management (Applies to Irrigated Land Only)
554	Drainage Water Management (DWM) (Applies to Drained Land Only). DWM "mandatory where feasible" for the site. This applies to both surface and subsurface drainage.
328	Conservation Crop Rotation – Utilizes a minimum of 3 different crops in the rotation; or 2 different crops, if a cover crop or perennial hay crop (2 or more years) is used after one of the crops in the rotation. The purpose is to improve soil quality, reduce erosion, and improve nutrient cycling.
340	Cover Crop – A cover crop after each annual crop, unless the growing season prohibits the use of a cover crop after one or more of the annual crops. Use a nitrogen producing cover crop, unless manure or another source of organic approved nitrogen is applied as a nitrogen source. If manure is applied or another source of organic approved nitrogen is applied, then a grass cover crop may be established. The purpose is to provide nitrogen for the crop(s), improve soil quality, reduce erosion, and improve nutrient cycling. This practice does not apply in dry land farming areas where soil moisture is the major limiting factor to cover crop establishment.
	<ol style="list-style-type: none"> 1. Assumes erosion is controlled as close as possible to T. The goal is "T" but a few tons over "T" is acceptable if feasible alternatives are not available to achieve "T". 2. Assumes concentrated flow erosion is controlled / stabilized as much as possible. Ephemeral erosion that forms annually should be controlled to limit nutrient transport.
Practice Code	Cropland Supporting Core Practices
328	Conservation crop rotation (Unless Organic or Transition to Organic")
340	Cover Crop (Unless Organic or Transition to Organic")
330	Contour farming
329	Residue and Tillage Management, No-Till/Strip Till/Direct Seed
345	Residue & tillage management, Mulch Till
346	Residue & tillage management, Ridge Till
412	Grassed waterway
585	Stripcropping
600	Terrace
332	Contour buffer strips
390	Riparian herbaceous cover
391	Riparian forest buffer
393	Filter strip
601	Vegetative barriers
635	Vegetative treatment area
656	Constructed wetland

657	Wetland restoration
658	Wetland creation
659	Wetland enhancement
747	Denitrifying bioreactor
511	Forage harvest management
362	Diversion
386	Field border
410	Grade stabilization structure
447	Tailwater recovery
587	Structure for water control
633	Waste Utilization
638	Water and sediment control basin
606	Subsurface Drain(to facilitate Drainage Water Management – 554)
607	Surface Drain, Filed Ditch–(to facilitate Drainage Water Management – 554)
608	Surface Drain, Main or Lateral (to facilitate Drainage Water Management -554)