NUTRIENT MANAGEMENT (590)

Advanced Nutrient Management Precision System

2016 Environmental Quality Incentives Program (EQIP)

Purpose: By implementing an advanced precision nutrient management plan, producers will be able to improve efficiency and effectiveness of nutrients by utilizing specialized precision techniques and tools, maintain or increase yields, and minimize nutrient losses from fields, thus helping protect surface and ground water supplies. Precision nutrient management techniques ensure that the 4 R's (Right rate, Right source, Right application method, and Right application timing) provide proper amount of nutrients to the crop where it is needed.

Eligible Land: Cropland that is 30 acres in size or larger.

Requirements on a per field basis:

1. Develop a Nutrient Management Plan (590 Implementation Requirement Sheet) that documents the proper rate, source, application method, and application timing of recommended N, P, and K fertilizer application on a per field or sub-field basis. The P and K fertilizer recommendations must be provided as Variable Rate Prescription Maps based on UT Lime and Fertilizer recommendations. Refer to: https://ag.tennessee.edu/spp/Pages/soilfertilizerpubs.aspx
2. Plan erosion to tolerance "T" levels and to a positive soil conditioning index for the crop rotation.
3. Map(s) that provide the data of at least one of the following options utilized to determine the planning Zones:
    a. GPS Yield data from previous years (a minimum of 3 years needed)
    b. EC Maps or GPS-based elevation maps
    c. Vegetative indices maps from previous years (a minimum of 5 years needed) and report of ground truthing visit prior to establishment of Zones
4. Map(s) of the Zone soil sampling locations. Soil sampling locations within each zone shall be on a 10 acre or less grid.
5. Maps of soil sample analysis. Current soil test analyses (less than one year for nutrient plan development) shall be from UT Soil Testing Lab or a certified soil testing lab approved by The North American Proficiency Testing Program (Soil Science Society of America) http://www.naptprogram.org/about/participants or Agriculture Laboratory Proficiency Program (ALP). Contact the State Agronomist for labs participating in ALP.
6. Soil test results must be based on UT soil testing procedures. For soil tests from approved certified labs utilizing Mehlich 3 soil test extractant for Phosphorus (P) and Potassium (K), the results must be converted to UT guidelines and fertilizer recommendations. Refer to UT guide sheet W229 for proper conversion: https://utextension.tennessee.edu/publications/Documents/W229.pdf
7. Variable Rate Prescription Maps representing each Zone for phosphorus, potassium, and lime **based on University of Tennessee recommendation guidelines.**
8. Zone Nutrient budgets shall be based on realistic yield goal (average of 3 out of 5 years) for each crop in rotation.
9. Record of all nutrient applications that includes dates, sources, analysis, rates, and methods of application.
10. Variable rate as-applied maps of P and K fertilizer and Lime applications that include the date of application for each product.
11. Yield Maps from the GPS Yield Monitor data and harvest date must be submitted.

TN NRCS Nutrient Recordkeeping Form for Advanced Nutrient Management Precision System

Crop Year _____

Name and Address:	**Tract #:**	**Farm #:**	**Equipment Calibration Dates:**

Field No.	**Acres Applied**	**Crop**	**Planting Date**	**VR Presciption Maps for P, K, and Lime for Grid or Zone** ***(attach maps to form)***	**VR Application Source(s), Rate(s), and Date(s) of P, K, and Lime for Grid or Zone** ***(attach as-applied maps to form)***	**Nitrogen**					**Harvest Date and Yield**
						Recommendation (lbs/acre)	**Source Used**	**Application Rate (lbs/acre)**	**Application Date**	**Application Method**	