

Precision Nutrient Management

Definition/Purpose

Precision Nutrient Management means applying nitrogen; phosphorus and lime in a site-specific manner (with specialized application equipment or multiple application events) based on the site specific recommendations for each GPS-referenced sampling point to minimize entry of nutrients to surface and groundwater and improve water quality.

Policies

1. Cooperator must agree to implement practice for three years. An annual incentive payment per acre will be paid.
2. Cost Share funds may be used for any acreage, including acres previously, but not currently, under an active cost share contract for nutrient management.
3. Payments will be made on annual basis after practice has been completed.
4. Soils shall be tested at least every two years, and soil samples must be taken in accordance with NCDA&CS site-specific recommendations or CES general recommendations. Within each soil-mapping unit, soil samples should be taken at a minimum such that the field acres divided by the number of samples does not exceed an approximate 2 ½ acre grid/zone. Soil samples within each management zone must be documented by a ledger and/or map showing field size, shape, and soil sample locations.
5. Nutrients and lime must be applied according to the site specific recommendations for each GPS-referenced sampling point. Phosphorus and lime recommendations shall be based on the soil test results. Nitrogen recommendations shall be based on state or site-specific realistic yield expectations (RYE) for the relevant soil group. Alternatively, nitrogen recommendations can be determined using the average of the three highest crop yields for the most recent five crop harvests. Yield monitoring is recommended to determine the most effective nitrogen application rates.
6. The cooperator must provide either documentation of RYE calculations for each grid/zone or documentation of the software used to develop the RYE calculations.
7. "As planned" maps and "As Applied" maps shall be included to document application recommendations and actual application rates. In cases where agronomic rates are not specified in the NRCS Nutrient Management standard 590 for a specific crop or vegetative type, application rates may be determined using the best judgment of the nutrient management planner after consultation with CES or NCDA&CS.
8. The same acreage must be used during this period. Farm Service Agency (FSA) map or equivalent indicating location and acreage of field and location of soil samples and a soils map must be included with the CPO. If field-numbering system is different from FSA, the cooperator must provide a comparative key.
9. There is no minimum acreage required.

Agriculture Cost Share Program

10. Each farming operation will be limited to a single contract per his/her lifetime. These contracts will be limited to a \$15,000 lifetime cap for variable rate nutrient application. The local District has the authority to set additional limitations on acreage and/or maximum payment in accordance with the Cost Share Program policies and regulations.
11. Records are to be kept on farm and made available upon request and must include: nutrients applied (dates, amounts, and application methods), as applied maps, soils analysis reports, general application recommendations, crops grown and crop rotation.
12. Acceptable nutrient management planners are: NRCS, District staff, NCDA&CS, Cooperative Extension Service and individuals with documented experience with developing precision nutrient management plans (e.g., Certified Crop Advisor, Technical Service Provider, crop consultant). A cooperator may serve as his or her own planner; however, an acceptable nutrient management planner must review the plan and sign a verification statement certifying the plan meets technical standards (see Section VI for applicable form). The plan must be developed, discussed with the cooperator, and approved prior to planting.
13. The cooperator must sign a statement (NC-ACSP-1D) to follow the nutrient recommendations as prescribed by the plan. The NC-ACSP-1D form must also be signed by the District to certify that an appropriate nutrient management plan has been developed and is a part of the cooperator's District file. A copy of this statement must be included in the CPO.
14. The cooperator must send to the District Office an annual certification that the timing, amount and location of nutrient application events were consistent with the approved plan. *As applied* maps shall be submitted with the annual certification.
15. This practice shall be included in the five percent of all nutrient management plans to be spot checked annually by the local District.
16. BMP nitrogen and phosphorus impacts are required on the contract. Include the planted acreage as well. Refer to the Minimum NCACSP Effects Requirements table later in this section for the correct methods of calculation.
17. A cooperator, who has received cost share from EQIP for Precision Agriculture nutrient application, remains eligible for this incentive.
18. When determining the acreage for which payments can be made for this practice, only the acreage actually planted shall be considered. The area occupied by farm roads, best management practices, ditches, structures, etc. shall not be included in planted acreage.
19. Life of BMP is three (3) years.

Standards

N. C. NRCS Technical Guide, Section IV, Standard #590 (Nutrient Management).