

## Part 402 – Nutrient Management

### 402.1 Policy

A. The guidance and procedures contained in this section are applicable to all nutrient management associated technical assistance, except conservation seeding and planting practices that require only starter nutrients in the form of commercial fertilizer, animal manure, or organic by-products. All NRCS employees will follow these procedures when providing such technical assistance. Technical service providers and other non-NRCS employees will use these procedures when assisting with the implementation of Federal conservation programs for which NRCS has national technical responsibility and that include plans for nutrient management.

B. Nutrient management and comprehensive nutrient management plans (CNMP) are developed in compliance with all applicable Federal, State, Tribal, and local laws, regulations, and permit requirements. Federal, State, Tribal, and local laws and regulations take precedence over NRCS policy when more restrictive.

C. NRCS at the State level will supplement this guidance to make it applicable to local conditions as appropriate. Supplements must be approved by the Deputy Chief of Science and Technology at NHQ.

### 402.2 Definitions

The following definitions apply to terms used in this section.

- (1) Conservation Management Unit (CMU)—A field, group of fields, or other land units of the same land use and having similar treatment needs and planned management. A CMU is a grouping by the planner to simplify planning activities and facilitate development of conservation management systems. A CMU has definitive boundaries such as fencing, drainage, vegetation, topography, or soil lines.
- (2) Nutrient—Any of the elements considered essential for plant growth, particularly the primary nutrients: nitrogen, phosphorus, and potassium.
- (3) Nutrient Management/4Rs—Managing the right amount, right source, right placement, and right timing of the application of nutrients and soil amendments to ensure adequate soil fertility for plant production and to minimize the potential for environmental degradation, particularly air and water quality impairment.
- (4) Nutrient Management Plan—A nutrient management plan provides a documented record of how nutrients will be used for crop production and is developed in accordance with the Conservation Practice Standard (CPS) Code 590, Nutrient Management. The standard is available through each State's Field Office Technical Guide (FOTG).
- (5) Comprehensive Nutrient Management Plan (CNMP)—Is developed in accordance with guidance provided in Title 190, General Manual (GM), Part 405, Comprehensive Nutrient Management Plans, and technical criteria contained in the FOTG. A CNMP is a conservation plan for animal feeding operations (AFO). They typically include the following:
  - (i) The production area, including the animal confinement, feed, and other raw materials storage areas, animal mortality facilities, and manure handling containment or storage areas.

- (ii) The land treatment area, including any land under control of the AFO operator, whether it is owned, rented, or leased, and to which manure or process wastewater is, or might be, applied for crop, hay, pasture production, or other uses.
- (6) Nutrient Management Specialist—A person who provides technical assistance for nutrient management and has the appropriate certification.
- (7) Comprehensive Nutrient Management Specialist—A person who provides technical assistance for comprehensive nutrient management and has the appropriate certification to approve CNMPs.
- (8) Adaptive Nutrient Management—A process used to plan, implement, evaluate, and adjust nutrient application strategies over time (multiple seasons). The process is intended to allow for continued adjustment of the CPS Code 590 4Rs plan to achieve better nutrient-use efficiency.
- (9) Nutrient Source—Any material (i.e., commercial fertilizer, animal manure, sewage sludge, irrigation, water, etc.) that supplies one or more of the elements essential for plant growth.
- (10) Other Organic By-product—Any organic material other than animal manure, biosolids, or urea applied to the land (e.g., food processing waste).
- (11) Resource Management System (RMS)—A prescribed combination of conservation practices and management identified by land or water uses that, when implemented, prevents resource degradation and permits sustained use by meeting quality criteria established in the FOTG for the treatment of soil, water, air, plant, and animal resources.
- (12) Impaired Watershed—A watershed containing one or more “impaired water bodies,” i.e., those which are not attaining one or more State water quality standards.
- (13) Realistic Yield Goal—A yield estimate based on historical yield data, soil productivity information, climatic conditions, level of management, or local research results considering comparable production conditions.

### **402.3 Adaptive Nutrient Management**

The NRCS supports the adaptive nutrient management strategy. The process is to be carried out by producers themselves, in cooperation with the land-grant university, or with other agencies and industry partners following prescribed protocols developed by the State NRCS, land-grant university, or other appropriate technical agencies and industry. The results of adaptive nutrient management testing that meet the established protocols and are concurred with by NRCS and the land-grant university may be used in nutrient planning where appropriate. For adaptive nutrient management projects supported by NRCS, a final report of results must be provided to the NRCS State Conservationist.

### **402.4 Certification**

All persons (NRCS, non-NRCS personnel, technical service providers) who review or approve plans for nutrient management or comprehensive nutrient management will be certified in accordance with the Technical Service Providers (TSP) proficiency criteria available on the NRCS TechReg Web site, and with Title 180, General Manual (GM), Part 411, Technical Service Provider Assistance Policy.

## 402.5 Nutrient Management Plans

- A. Plans for nutrient management may be stand-alone or be elements of a more comprehensive conservation plan. When plans for nutrient management are part of a more comprehensive conservation plan, the provisions for nutrient management are compatible with other provisions of the plan.
- B. Plans for nutrient management are developed in accordance with this policy, the technical requirements as described in National Instruction (NI) 190-302, Nutrient Management Policy Implementation, and CPS Code 590, Nutrient Management, and States' NRCS FOTG information.
- C. When applicable, plans for nutrient management should include other practices or management activities as determined by specific regulation, program requirements, or producer goals.
- D. States are encouraged to adopt protocol for the format and appearance of nutrient management plans that is in accordance with Title 190, General Manual (GM), Part 402, Nutrient Management, and Part 405, Comprehensive Nutrient Management Plans, technical criteria contained in the FOTG, and other State-developed guidance.
- E. Nitrogen and Phosphorus risk assessments must be required in accordance with NI-190-302, and CPS Code 590, Nutrient Management.
- (1) When such risk assessments are made, nutrient management plans will include:
    - (i) A record of the site risk assessment rating for each field, and
    - (ii) Information about conservation practices and management actions that are planned to minimize the offsite movement of nutrients.
  - (2) The results of the nitrogen and phosphorus risk assessment(s) and recommendations must be discussed with the producer as a normal part of the planning process.
  - (3) When NRCS and State water quality control officials, based on previous risk assessments from locations with similar site and transport factors, have determined that additional site-specific assessment(s) of risk are not required (nitrogen and phosphorus), sufficient documentation establishing why the site was excluded must be provided.
- F. Sheet, rill and wind erosion must be managed to protect soil and water quality. Concentrated flow erosion (ephemeral and gully) must be managed with appropriate conservation practices. When site erosion rates are greater than soil loss tolerance ("T"), a site assessment for nutrient and soil loss must be conducted to determine if mitigation practices are required to protect water quality.
- G. Review and Revision of Nutrient Management Plans
- NRCS must follow up with the client to evaluate operation and maintenance needs and to determine if management systems and practices are performing properly and meeting the client's and NRCS' objectives. NRCS must encourage clients to review and revise their Nutrient Management Plan whenever they have new soil test results or any change in their cropping system; and for CNMPs, when animal numbers, spreadable acres, or manure handling tactics have changed. An annual follow up with the landowner is strongly recommended. A landowner's decision to update or revise their plan should be documented in the Technical Assistance notes.

## 402.6 Special Considerations

- A. Nutrient management plans that include the use of manure or organic by-products will identify the size of the land base needed for land application based on phosphorus at crop-removal rates, even when initial implementation will be based on nitrogen.
- B. In areas with specially protected water bodies, plans will be developed incorporating any special requirements that are applicable within these areas.
- C. Land application of biosolids
  - (1) When biosolids are applied to agricultural land, the accumulations of potential pollutants from such sources (i.e., arsenic, cadmium, copper, lead, mercury, selenium, and zinc) in the soil is monitored in accordance with applicable Federal and State laws, and local ordinances. States may determine if such provisions should also be required for the land application of animal manure and other organic by-products that contain any of these metals.
  - (2) Biosolids are analyzed prior to land application to determine its nutrient value, heavy metals, and salt content.
  - (3) Acceptable application rates of biosolids are determined using guidelines in this policy, and applicable Federal, State, and local regulations.
- D. In the planning process planners must discuss with producers the use of manure, organic by-product, and biosolids and associated restrictions when used in the production of “fresh”, edible crops for the produce market, such as vegetables, root, or tuber crops. Such applications must be in accordance with provisions of all applicable Federal, Tribal, State, and local laws or policies.

## 402.7 Recordkeeping

It is the responsibility of producers, or the agents of producers, to maintain records which document the implementation of plans for nutrient management. Producers, or agents of producers, must comply with all State recordkeeping requirements. For detailed information about CNMP recordkeeping requirements, refer to NI-190, Part 304, Comprehensive Nutrient Management Plan Technical Criteria, and the State’s FOTG.