# Nutrient Management Standard and Policy Updates

## Animal Waste Management Workshop
## Aurora Oregon
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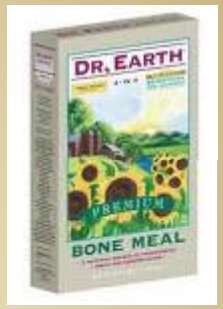
# Navigating the Nutrient Management Policy Puzzle

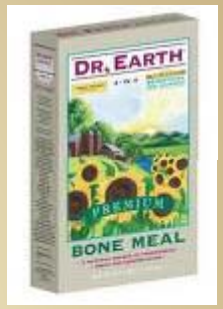



## National Nutrient Management Policy

- General Manual 190 Part 402
- General Manual 190 Part 405
- General Manual 190, Part 409

- National Instructions, Title 190, Part 304, CNMP Criteria
- Handbook, Title 190, Part 620, Comprehensive Nutrient Management Planning

# Navigating the Nutrient Management Policy Puzzle




## State Nutrient Management Policy

- General Manual 190, Part 402 Oregon Amendment
- General Manual 190, Part 405, Subparts A-D, Oregon Amendment
- Oregon CNMP Practice Activity Code 102

# National Nutrient Management Policy

## General Manual 190, Part 402- Highlights

The guidance and procedures contained in this section are applicable to all technical assistance that involves nutrient management and/or the utilization of organic by-products, including animal manure, where nutrients are applied to the land. All NRCS employees will follow these procedures when providing such technical assistance. Third party vendors 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

# National Nutrient Management Policy

## General Manual 190, Part 402- Highlights

- All persons who review or approve plans for nutrient management will be certified through a certification program accepted by NRCS in the state involved.

- NRCS should identify all certification programs, available within the state, it judges to be acceptable methods for becoming certified.

- USDA recognized programs for certifying third party vendors are recommended for use in states that have or use no other recognized certification program.

# National Nutrient Management Policy

## General Manual 190, Part 402- Highlights

- Plans for nutrient management will include the following components, as applicable:

(1) Aerial site photographs or maps and a soil map.
(2) Current and/or planned plant production sequence or crop rotation.
(3) Soil test results and recommended nutrient application rates.
(4) Plant tissue test results, when used for nutrient management.
(5) A complete nutrient budget for nitrogen, phosphorus, and potassium for the plant production system.
(6) Realistic yield goals and a description of how they were determined.
(7) Quantification of all important nutrient sources (this could include but not be limited to commercial fertilizer, animal manure and other organic by-products, irrigation water, etc.).
(8) Planned rates, methods, and timing (month & year) of nutrient application.
(9) Location of designated sensitive areas or resources (if present on the conservation management unit).
(10) Guidance for implementation, operation, maintenance, and recordkeeping.

# National Nutrient Management Policy

## General Manual 190, Part 402- Highlights

If the Conservation Management Unit lies within a hydrologic unit area that has been identified or designated as having impaired water quality associated with nitrogen or phosphorus, plans for nutrient management include an assessment of the potential for nitrogen or phosphorus transport from the field. The Leaching Index (LI) and/or Phosphorus Index (PI), or other assessment tools accepted by NRCS, may be used to make these assessments. When such assessments are made, nutrient management plans will include:

(i) A record of the site rating for each field.
(ii) Information about conservation practices and management actions that can reduce the potential for phosphorus movement from the field.

The results of such assessments and recommendations are discussed with the producer as a normal part of the planning process

# National Nutrient Management Policy

## General Manual 190, Part 402- Other Highlights

- Addresses revision of plans (to coincide with the soil test cycle)
- Requirements for soil and plant tissue testing
  - No older than 5 years;
  - Requires use of APT-PAP certified labs
  - Encourages the Pre-Sidedress Nitrogen Test
  - Identifies lab analysis, accepted book values and historic operation records as valid sources of manure nutrient content data

# National Nutrient Management Policy

## General Manual 190, Part 402- Other Highlights

- Articulates Nutrient Application Rates
  - Sets Land Grant University guidance as the primary source for nutrient application rates
  - Requires that planned and actual rates of application shall not exceed recommended rates (when commercial fertilizer is the only source of nutrients being applied). When conditions require that planned/actual rates differ from recommended rates, the plan includes documentation of the reason.
  - States that planned rates may exceed recommended rates when custom fertilizers aren't available or when manure or other organic by products are used.
  - Where manures or other organic by products are used, this section sets out guidance for determining planned application rates

# National Nutrient Management Policy

**General Manual 190, Part 402- Other Highlights**

- Where manures or other organic by products are used, this section sets out guidance for determining planned application rates

- Nitrogen application: manure can be applied to legume crops at a rate equal to the estimated nitrogen removal in the harvested portion.

- Phosphorus application will follow the Phosphorus Index option outlined in Table 1:

Low Risk ----------Nitrogen Based manure application
Medium Risk ----------Nitrogen Based manure application
High Risk----------Phosphorus Based
Very High Risk ----------Phosphorus Based (e.g. no application)

# National Nutrient Management Policy

## General Manual 190, Part 402- Other Highlights

- **Allows for states to develop specific guidance for using Table 1**

- **Provides for rotational application of phosphorus applied as manure**

- **Addresses potassium application**

- **Requires identification of the size of the land base needed to enable plan implementation based on phosphorus even when initial implementation is based on nitrogen, unless other provisions not including land application are made.**

- **Requires field by field assessment of the potential risk of phosphorus transport, and this includes a record of the rating by field, information about practices and management that can reduce transport potentials. Requires discussion with the producer.**

# National Nutrient Management Policy

## General Manual 190, Part 402- Other Highlights

- **Provides for Progressive Planning**
- **Articulates requirements when implementation will be expected to result in increasing soil phosphorus levels**
- **Provisions for land application of sewage sludge**
- **Sets out Recordkeeping Requirements**

It is the responsibility of producers, or the agents of producers, to maintain records which document the implementation of plans for nutrient management. Records include:

(1) Soil test results and recommended nutrient application rates.
(2) Quantities and sources of nutrients applied; and heavy metals if applicable.
(3) Dates (month and year) on which nutrients were applied.
(4) Methods by which nutrients were applied (e.g. broadcast, incorporated after broadcast, injected, or fertigation).
(5) Crops planted and dates of planting.
(6) Harvest dates and yields of crops.
(7) Where applicable, results of water quality tests (including irrigation water), plant tissue, or other organic by-products tests.
8) The results of reviews including the identification of the person completing the review and any recommendations that resulted from the review.

# Oregon Nutrient Management Policy

## General Manual 190, Part 402- Oregon Amendment

*currently draft but in process for distribution

**Articulates how the Nutrient Management standard is managed in Oregon:**

1. **Commercial Fertilizer**
2. **Manure Fertilizer**
3. **Organic(Non-Manure) Fertilizer**

**The training and certification requirements for each are unique and separate.**

**This section addresses training and certification for commercial fertilizer and organic (non-manure) fertilizer.**

**Users are directed to GM190, Part 405 for training and certification requirements for manure fertilizer (among other references).**

# Oregon Nutrient Management Policy

## General Manual 190, Part 402- Oregon Amendment

*currently draft but in process for distribution

## Commercial Fertilizer Training/Certification

- Oregon Conservation Planning Course (achieving/maintaining certified planner status)
- NEDC Course *Introduction to Water Quality*
- NEDC Course *Nutrient Management, Track 1, Part 1*
  This is an online course that provides the background and general knowledge required to complete the locally facilitated session described below. Planners may also choose to complete this training in a classroom style course to be offered every two years through Oregon NRCS [still under development]
- NEDC Course, *Nutrient Management, Track 1, Part 2*
  This course is sponsored by Oregon NRCS and held with the assistance of OSU. This piece provides planners with a local perspective focused at the state and basin levels. Students learn how to use the Fertilizer Guides and other documents from the Extension specialists that wrote them.
- NEDC Course, *Nutrient Management, Track 1, Part 3*
  Successful completion of a nutrient management design utilizing commercial fertilizer within 9 months of completing the facilitated session.

# Oregon Nutrient Management Policy

## General Manual 190, Part 402- Oregon Amendment

*currently draft but in process for distribution

**In addition to the previous slide, the planner must have knowledge and skills in the following:**

1. **Customer Service Toolkit**
2. **RUSLE2**
3. **Oregon Nutrient Management Planner**
4. **All applicable local, Tribal, State, and Federal water quality goals or regulations**
5. **Current Wind Erosion Prediction Technology**
6. **Oregon P Index**

# Oregon Nutrient Management Policy

## General Manual 190, Part 402- Oregon Amendment

*currently draft but in process for distribution

### Organic, Non-Manure Fertilizer Training/Certification

- Oregon Conservation Planning Course (achieving/maintaining certified planner status)
- NEDC Course *Introduction to Water Quality*
- NEDC Course *Nutrient Management, Track 1, Part 1*

  This is an online course that provides the background and general knowledge required to complete the locally facilitated session described below. Planners may also choose to complete this training in a classroom style course to be offered every two years through Oregon NRCS [still under development]
- NEDC Course, *Nutrient Management, Track 1, Part 2*

  This course is sponsored by Oregon NRCS and held with the assistance of OSU and other partners.

  This piece provides planners with a local perspective focused at the state and basin levels. Students learn about non-manure organic fertilizers used in Oregon, using the OSU Fertilizer Calculator and Cover Crop Calculator from the local Extension specialists that wrote them, and other references when working with non-manure organic fertilizers.
- NEDC Course, *Nutrient Management, Track 1, Part 3*

  Successful completion of a nutrient management design utilizing non-manure organic fertilizer within 9 months of completing the facilitated session.

# Oregon Nutrient Management Policy

## General Manual 190, Part 402- Oregon Amendment

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**In addition to the previous slide, the planner must have knowledge and skills in the following:**

1. **Customer Service Toolkit**
2. **RUSLE2**
3. **Oregon Nutrient Management Planner**
4. **All applicable local, Tribal, State, and Federal water quality goals or regulations**
5. **Current Wind Erosion Prediction Technology**
6. **Oregon P Index**

# Oregon Nutrient Management Policy

## General Manual 190, Part 402- Oregon Amendment

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- Names the Phosphorus Index (PI) as the tool Oregon uses to evaluate the potential for off-site movement of Phosphorus.
- There are different PIs for Eastern and Western Oregon
- All are contained in Agronomy Technical Note #26
- Specifies that the PI will be completed when manures or organic by products are applied to adjust the amount, placement, form, and timing of application.

# Oregon Nutrient Management Policy

## General Manual 190, Part 402- Oregon Amendment

*currently draft but in process for distribution

- Defines acceptable soil test information
- If no history of manure application, current soil tests are less than 5 years old.
- If the field has a history of manure application, or if management has changed significantly, then current soil tests are no older than three years.
- Significant changes in management include changes in manure and wastewater production, storage, collection, transport, or utilization.

# Oregon Nutrient Management Policy

## General Manual 190, Part 402- Oregon Amendment

*currently draft but in process for distribution

- **Reiterates same basic nutrient application rate information as in the National policy, with the following exception:**

| PI Risk Rating | Allowable Phosphorus Application |
|---|---|
| Low | Nitrogen Based |
| Medium | Nitrogen Based |
| High | Phosphorus Based |
| Very High | No Manure Application* |

*No manure application is allowed on Very High Risk Sites unless the nutrient management plan includes conservation practice and management alternatives that will reduce PI transport and source factors.

# Oregon Nutrient Management Policy

## General Manual 190, Part 405- Oregon Amendment

*currently draft but in process for distribution

**Subpart A**

**Provide technical assistance to AFO/CAFO operators, in general, with 1000 animal units or less as staff is available.**

**Subpart B**

**A CNMP is prepared when NRCS or our agents are providing TA or FA to an AFO/CAFO to address manure or wastewater handling, storage, treatment, application, and/or nutrient management.**

**Contains definitions of AFOs and Oregon CAFOs**

# Oregon Nutrient Management Policy

## General Manual 190, Part 405- Oregon Amendment

*currently draft but in process for distribution

**General Manual, Part 405: Comprehensive Nutrient Management Plans Oregon Amendment**

**<u>Subpart B (Continued)</u>**

**Lines out requirements for manure analyses. Labs will meet the standards of the Manure Testing Laboratory Certification Program and contains a link to the website.**

**Lays out training and certification requirements for Oregon CNMP TSPs.**

**Articulates NRCS training and certification requirements for CNMPs in Oregon**

# Oregon Nutrient Management Policy

## General Manual 190, Part 405- Oregon Amendment

*currently draft but in process for distribution

**Subpart B**

**Articulates NRCS training and certification requirements for CNMPs in Oregon**

- Oregon Conservation Planning Course -current certified Oregon conservation planner
- NEDC Introduction to Water Quality (20 hours)
- NEDC Air Quality, Climate Change (1.5 hours) and Energy and the Air Quality Resource Concerns (1 hour)] or attendance to NRCS Oregon state sponsored air and energy training June 2008
- NEDC Agricultural Waste Management Systems, A Primer (1 hour)
- NEDC Agricultural Waste Management Systems - Level 2 (40 hours)
- NEDC Nutrient Management Track 1, Part 1 (32 hours)
- NEDC Nutrient Management Track 1, Part 2 (facilitated session) (32 hours) (this course is sponsored by Oregon NRCS and held with the assistance of OSU)
- NEDC OR Nutrient Management Track 1, Part 3 (Plan Development) (40 hours): Turning in a CNMP that includes all the components identified in the Oregon CNMP checklist within 9 months of completing facilitated session. This CNMP will be reviewed by a state office specialists and CNMP certification requires passing this portion of the training.

# Oregon Nutrient Management Policy

## General Manual 190, Part 405- Oregon Amendment

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**Subpart B (Continued)**

**In addition to the previous slide, the planner must have knowledge and skills in the following:**

1. **Customer Service Toolkit**
2. **RUSLE2**
3. **Oregon Nutrient Management Planner**
4. **Contents of the Oregon Department of Agriculture (ODA) National Pollutant Discharge Elimination System (NPDES) General Permit**
5. **All applicable local, Tribal, State, and Federal water quality goals or regulations**
6. **Current Wind Erosion Prediction Technology**
7. **Oregon P Index**

# Oregon Nutrient Management Policy

## General Manual 190, Part 405- Oregon Amendment

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**General Manual, Part 405: Comprehensive Nutrient Management Plans Oregon Amendment**

**<u>Subpart B</u>**

**Names OnePlan Nutrient Management Planner as the software package that Oregon has adopted.**

**<u>Subpart C</u>**

**Refers to the Skills Matrix for a list of approved CNMP Planners**

**Contains procedures for revocation of CNMP Certification. Certification as well as Job Approval Authority will be suspended until competency is re-established. Guidelines for regaining certification are included.**

**Contains provisions for continuing education requirements (20 hours over 3 years).**

# Nutrient Management Practice Standard (590)

- Oregon's Current Nutrient Management standard is dated May 2008
- A new National standard is being developed.
- Draft #2 was recently issued via the Federal Register, and comments were due in late February.
- Oregon NRCS made several comments on Draft #2
- Expecting the final product as soon as comments are considered and the process is complete.
- After the new National standard is issued, states have one year to finalize their versions. States may make standards more (but not less) strict.
- Oregon will need to revise its Nutrient Management standard. The extent of the changes won't be certain until the updated National standard is out.

# Oregon Nutrient Management Job Sheet

- Oregon has developed a Nutrient Management job sheet (.xlsm) that meets the General Criteria outlined in the standard.

- If you have additional Criteria to meet, they may require additional documentation.

- This job sheet has gone through several revisions, the latest one being December 2010.

- Close the PPT and go to the Job Sheet.