

Oklahoma Conservation Practice Information Sheet

590-01

Producer:

County:

Date:



fixation credits, green manures, plant or crop residues, compost, organic by-products, municipal and industrial biosolids, wastewater, organic materials, estimated plant available soil nutrients, and irrigation water.

Sheet, rill and wind erosion must be managed to protect soil and water quality. Concentrated flow erosion (ephemeral and classic gully) must be managed with appropriate conservation practices.

Definition

Manage rate, source, placement, and timing of plant nutrients and soil amendments while reducing environmental impacts.

Purpose (select all that apply)

- ☐ Improve plant health and productivity.
- ☐ Reduce excess nutrients in surface and ground water.
- ☐ Reduce emissions of objectionable odors.
- ☐ Reduce emissions of particulate matter (PM) and PM precursors.
- ☐ Reduce emissions of greenhouse gases (GHG).
- ☐ Reduce emissions of ozone precursors.
- ☐ Reduce the risk of potential pathogens from manure, biosolids, or compost applications from reaching surface and ground water.
- ☐ Improve or maintain soil organic matter.

Where Applicable

All fields where plant nutrients and soil amendments are applied.

Specifications

A nutrient management plan will be developed for nitrogen (N), phosphorus (P), and potassium (K), which accounts for all known measurable sources and removal of these nutrients.

Sources of nutrients include, but are not limited to, commercial fertilizers (including starter and in-furrow starter/pop-up fertilizer), animal manures, legume

Nutrients will be managed based on the 4Rs of nutrient stewardship—apply the right nutrient source at the right rate at the right time in the right place—to improve nutrient use efficiency by the crop and to reduce nutrient losses to surface and groundwater and to the atmosphere.

Nutrient sources will be selected to be compatible with application timing, tillage and planting system, soil properties, crop, crop rotation, soil organic content, and local climate to minimize risk to the environment.

Prior to land application, nutrient values will be determined of all nutrient sources (e.g. commercial fertilizers, manure, organic by-products, biosolids). Soil sampling depth will follow current Oklahoma State University recommendations contained within the Soil Sampling Fact Sheet (PSS – 2207)

The Oklahoma Cooperative Extension Service Office is available to assist with the soil testing process. Additional information concerning soil sampling can be found in the Oklahoma Cooperative Extension Service Publication **PSS-2207, How to Get a Good Soil Sample**

If a soil test laboratory other than OSU is used, the lab shall use the same phosphorus extractant (Mehlich-3) as used by the OSU lab and nutrient recommendations will be the same as those used by OSU.

Nutrient Management Plan

The following information will help ensure NRCS receives the correct information for developing a Nutrient Management Plan.

- A. Soil sampling depth will follow current Oklahoma State University recommendations contained within the Soil Sampling Fact Sheet (PSS – 2207). A minimum of 20 core samples shall be collected and mixed thoroughly in a clean plastic container for submission to the lab. Samples will reflect a uniform area. Sites with variability in soils, crops, vegetation, or terrain should have separate samples submitted.
- B. Soil tests will be no older than 2 years old.
- C. If a soil testing lab other than Oklahoma State University is used, ensure that a Mehlich 3 extraction method is used for Phosphorus. **If Mehlich 3 extraction is not used, Nutrient Management can NOT be certified.**
- D. Soil tests must be provided to NRCS to determine/review fertilizer application rates prior to application. If manure, compost, effluent, or other organic nutrient sources are used, then nutrient tests for that source are also required prior to application.
- E. If zone or grid sampling is the selected nutrient management strategy (not basic or N rich strips), nutrients applied will correlate to the nutrients measured at the scale measured. For example, each grid 1 acre grid, measured N, P, K and pH, so N, P, K and pH will be managed on each 1 acre grid using variable application equipment. If zones are sampled, then the nutrients will be applied based on those zones. Yield monitor data will be used to correlate nutrients applied and ensure established grids/zones can be used for several years.
- F. If N management includes N rich strips, then P, K, and pH will be managed to meet basic nutrient management requirements.
- G. The producer is responsible for relaying information regarding nutrient application rates, fertilizer treatments, and setback requirements when applicable to the nutrient applicator.
- H. The applicator should ensure that they keep accurate records of where nutrients are applied to the field and setbacks. This may be difficult when bulk fertilizer is purchased and applied to multiple small fields.
- I. If nutrient management application includes enhanced efficiency products, special nutrient products, or testing, ensure nutrient management strategies and/or products selected are approved by NRCS and communicated to the applicator.