

10 Minute Supervisor Trainings



November 2023

Nutrient Management Plans

Have you ever thought about how much manure is produced by livestock each year and how those nutrients are lost or utilized? Landowners can better manage their operations and soil health by developing a Kentucky Nutrient Management Plan (KYNMP). Nutrient management planning continues to grow in importance for all types and sizes of agricultural operations in Kentucky. This is driven in large part by concerns regarding water quality and the increased need for nutrient education among landowners. Many agricultural producers view nutrient management planning as a box to be checked to meet program requirements, but having a plan is the process of getting to know more about your farming operation. By evaluating inputs and outputs landowners can begin to manage their land for environmental stability. This training will tell you more about who needs plans and how conservation districts can help landowners complete those plans for their operations.

Why is Nutrient Management Important?

Implementing a nutrient management plan can save on fertilizer costs while protecting water quality. The objective of nutrient management is to use nutrients (mainly nitrogen, phosphorus, and potassium) wisely for optimal economic benefit to the farmer while minimizing impact on the environment. Excessive application of fertilizers or manure can contribute to pollution of streams and groundwater resources and generally reduce profitability. A properly implemented nutrient management plan can assure the farmer that the correct amounts of nutrients are being utilized in the most efficient manner.

What is a Kentucky Nutrient Management Plan (KYNMP)?

A Kentucky Nutrient Management Plan is a written inventory of a farming operation's soil nutrient levels reported by field, on-farm nutrient inputs from manure and commercial fertilizer, and a strategy to meet crop production needs without substantially increasing soil Phosphorous levels. These can be completed by landowners, Division of Conservation personnel, or other knowledgeable individuals by using University of Kentucky's Nutrient Planning Tool.

Who needs a Nutrient Management Plan?

- Any landowner spreading or storing manure.
- Any landowner with confined feeding operations
- Landowners with 10 or more acres who land apply plant-available nutrients.
- Landowners who export manure.



A Nutrient Management Plan should include:

- A farm aerial maps showing field boundaries.
- Soil test results for each field.
- Crops produced on the farm.
- Nutrient sample results for livestock manure being land applied.
- The number and types of livestock, weight, confinement period and how much manure they produce.
- Calculations that show the amount of manure that should be applied to each field.
- A written description of how to manage your on-farm nutrients in relation to cropping cycles.
- Kentucky Nutrient Management Plans could also contain recommendations for farm facilities, manure application rates, and educational materials about mortality disposal, and soil and manure testing.

What type of a plan do landowners need?

The type of nutrient management plan needed for a particular farming operation can be determined by the type of operation, management goals, and whether or not the producer plans to apply for USDA Farm Bill funding. Anyone whose operation generates livestock waste and plans to seek technical and financial assistance from USDA NRCS will need a Comprehensive Nutrient Management Plan (CNMP). A CNMP must be completed by a contracted Technical Service Provider. A Kentucky Nutrient Management Plan (KYNMP) is required by the KY Agriculture Water Quality Act, Statewide Agriculture Water Quality Plan, for the land application of manure or commercial fertilizer. Additionally, the State Cost Share Program requires that a KYNMP be completed prior to installing a winter-feeding heavy use area to verify that nutrients can be managed appropriately on the land available for application.

Producers must update either Nutrient Management Plan every five (5) years or more frequently if there are changes in animal numbers, cropping sequence, or acreages where livestock manure is being applied.

How can districts assist landowners?

- Encourage the education and training of district employees and staff.
- Encourage county-wide nutrient management education.
- Assist landowners by requesting a technical professional to develop the plan through the Division of Conservation.
- Assist landowners in developing a KYNMP online using the tools provided by the UK Cooperative Extension Service. Extension publication ID-211, Kentucky Nutrient Management Planning Guidelines and the KY Nutrient Management Planning Calculation Tool includes instructions and examples from different types of farming operations that are helpful when developing a plan.
- If a CNMP is necessary, contact NRCS to schedule a landowner visit and obtain a list of certified planners.
- Assist landowners in applying for either EQIP or State Cost Share funding for development of that plan.

For more information about KYNMP's go to: <https://enr.uky.edu/research-faculty/departments/biosystems-agricultural-engineering/extension/soil-and-water-extension-programs/nutrient-management-planning>