

# What Is A Farm Nutrient Management Plan?

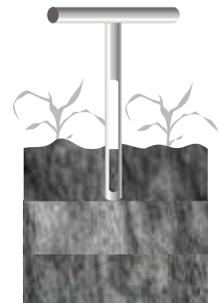
*Ideally, a farm nutrient management plan is a strategy for obtaining the maximum return from your on- and off-farm fertilizer resources in a manner that protects the quality of nearby water resources. Sounds easy, right? Well in many cases it is. In others, nutrient management planning involves some unique challenges. All plans require thought and understanding between the person developing the plan and the person following the plan—the farmer!*



*There are basic components to all farm nutrient management plans. These include the following:*

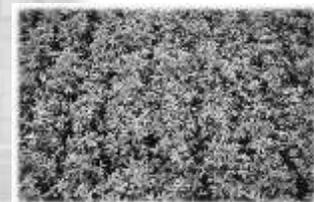
## Soil Test Reports

Complete and accurate soil tests are the starting point of any farm nutrient management plan. All cropland fields must be tested or have been tested within the last four years. From the soil test results, the base fertilizer recommendations for each field are given.



## Assessment Of On-Farm Nutrient Resources

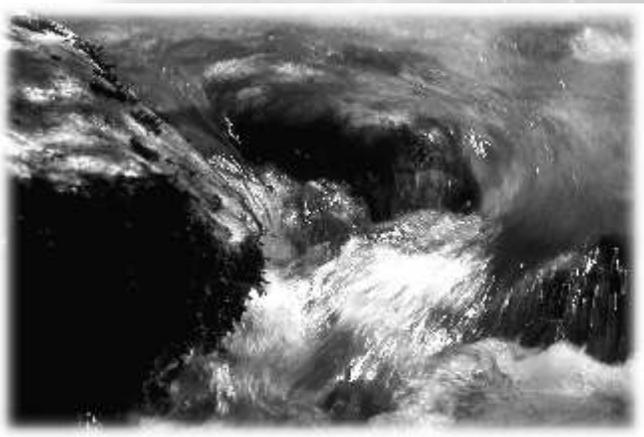
The amount of crop nutrients supplied to your fields from on-farm nutrient resources such as manure, legumes, and organic wastes need to be determined and deducted from your base fertilizer recommendations.



Manure applications to fields supply crops with nitrogen, phosphorus, and potassium—as well as sulfur and organic matter. Legume crops such as alfalfa, clover, soybean, etc. supply nitrogen to the crops that follow them.

# Nutrient Crediting

Once your on-farm nutrient resources are determined, your commercial fertilizer applications should be adjusted to reflect these nutrient credits. This action will not only reduce your commercial fertilizer bills, but it will also protect water quality by eliminating nutrient applications that are in excess of crop need. It has been shown that excessive nutrient additions to cropland can result in contamination of ground water as well as lakes and streams.



Management skills come into play when determining nutrient credits. For example, to properly credit the nutrients supplied from manure, a grower must know both the manure application rate and the crop-available nutrient content of the manure. To credit the nitrogen available to crops following alfalfa, the condition of the alfalfa stand as well as last cutting date need to be known.

## Consistent With Your Farm Conservation Plan

A nutrient management plan needs to be consistent with your farm conservation plan. If you participate in any federal farm programs, you probably have a soil conservation plan for your farm. The conservation plan is another important component of any nutrient management plan for it contains needed information on your planned crop rotations, identification of the slopes of all fields (which is important when planning manure applications), and the conservation measures you are following to maintain your soil erosion rates at "T" or tolerable rates.

In the event that you do not have a soil conservation plan for your farm, or your existing farm plan does not meet "T", the information contained in a conservation plan will have to be obtained before a nutrient management plan can be developed. This usually means that a revised or new soil conservation plan will need to be prepared for your farm.



# Manure Inventory

Probably the most challenging aspect of developing and implementing a farm nutrient management plan is the advance planning of manure applications to cropland fields. This involves estimating the amount of manure produced on the farm and then planning specific manure application rates for individual cropland fields. Sounds challenging—and it is, but there are some tricks to the trade.



One of them is calibrating your manure spreader. This is done using scales—either your own platform scales or portable axle scales available from your county Extension or Land Conservation office. By calibrating your manure spreader, you will know the number of tons of manure your spreader typically holds. Once this is known, a specific number of spreader loads can be applied to a given field in order to deliver a planned manure application rate.

# Manure Spreading Plan

The majority of any nutrient management plan for farms with livestock will deal with a manure spreading plan. The amount of manure the farm produces has to be applied to fields in a manner that makes sense both environmentally and agronomically.



Planned manure applications should be made at rates that do not exceed crop nutrient need as identified in the soil test report. The nutrient management plan will also prioritize those fields that would benefit the most from the manure-supplied nutrients while posing little threat to water quality. Also, the nutrient management plan will identify those fields that have manure spreading restrictions. Examples of such restrictions would be fields adjacent to lakes and streams, sloping fields where the threat of spring runoff prohibits manure applications in the winter, and fields in the vicinity of wells, sinkholes, or fractured bedrock.

# Manure Spreading Plan (continued)

The seasonal timing of manure applications to cropland will also be identified in the farm nutrient management plan. The timing of planned manure applications will depend upon each farm's manure handling system. Manure application periods for a farmer with manure storage will be significantly different than that of a farmer who has to haul manure on a daily basis.



## The 590 Nutrient Management Standard

You may have heard or read about something called the "590 standard" and you might be wondering what it is and what it has to do with nutrient management planning. The 590 standard is a USDA-Natural Resources Conservation Service document that defines the minimum requirements and components of an acceptable nutrient management plan. A nutrient management plan meeting the 590 standard is a requirement for participation in some federal and

state farm programs involving cost-sharing. A farm nutrient management plan that meets the 590 standard is also a requirement of some county ordinances dealing with the construction of manure storage facilities or livestock expansion.

