



# MARYLAND NUTRIENT MANAGEMENT PROGRAM

## Agricultural Operation Record Keeping Requirements

(January 2003)

The Maryland Nutrient Management Program (MNMP) has developed a new record keeping system, which enables operators to evaluate crop management and nutrient management decisions, and helps consultants make more accurate nutrient recommendations. Included in the new system is a *Field-By-Field Nutrient Application Record* form, a *Grain Yield Calculation* sheet and a *Forage Yield Calculation* sheet.

According to the Water Quality Improvement Act (WQIA) of 1998, the application of nutrients on a farm operation must be documented, and certain records must be maintained by the operator for either 3 or 5 years (See Table 1). It may, at times, be necessary to make these records available to a Maryland Department of Agriculture (MDA) Nutrient Management Specialist when he/she evaluates the implementation of a nutrient management plan.

Table 1.

<p><b>For 3 years, the following records/plan information must be kept:</b></p> <ul style="list-style-type: none"><li>➤ Nutrient management plan prepared by certified consultant</li><li>➤ Receipts for nutrients purchased</li><li>➤ Manure analysis laboratory report and management information (if applicable)</li><li>➤ Soil analysis laboratory report</li><li>➤ Documentation of field-by-field nutrient quantity, rates, timing, type and analysis</li><li>➤ Documentation justifying past revisions or adjustments to the nutrient management plan</li></ul> <p><b>For 5 years, the following records must be kept:</b></p> <ul style="list-style-type: none"><li>➤ Crop yields and support of crop yield data each year for 5 years</li></ul> <p><b>For nurseries or out -of-ground producers, the following records must be kept:</b></p> <ul style="list-style-type: none"><li>➤ Description of production cycles and nutrients applied, description of substrate, analysis of organic materials used as a source of nutrients in the substrate, and any monitoring information on run-off testing</li><li>➤ Documented nutrient use for crops without yield goals</li></ul>
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In addition to documenting nutrient applications, it is important to document any adjustments to the nutrient management plan. These adjustments include:

- Change in land base
- Change in crops
- Change in nutrient source
- Change in the number of animals
- Change due to manure analysis

Some adjustments are beyond the operator's control, however they still must be documented. These kinds of adjustments include:

- Natural disasters
- Animal mortality or disease
- Economic factors (market changes)
- Weather

## **Field-by-Field Nutrient Application Record Form**

On the new *Field-by-Field Nutrient Application Record* form, operators can easily document the application of nutrients on their farm operations, and account for each farm that they manage on an annual basis. Operators can also keep track of one or more fields that are planted with the same crop and managed similarly.

This form contains two separate areas for recording nutrient applications based on either the same field with different crops in a cropping year or different fields with different crops or management considerations. Each nutrient application can be documented by date, or if the applications are similar, multiple applications can be recorded with several dates on one row.

Other information recorded on this form include the application type (such as chemical fertilizer, animal manure or bio-solids), analysis, rate, total amount applied, method of application and acres applied. Lime application can also be recorded on this form although it is not required by the regulations. Operators can also record any notes specific to the application activity as needed.

Copies of the *Field-by-Field Nutrient Application Record* form can be made by the operator or obtained by contacting the MNMP. Questions regarding this form, record keeping in general or the MNMP can be directed to the county's Extension Agent in Agricultural Science or MDA's Nutrient Management Program at 410-841-5959.

## **Grain and Forage Yield Calculation Sheets**

Two other forms that have been developed by the MNMP are the *Grain Yield Calculation Sheet* and *Forage Yield Calculation Sheet*. These two forms are designed to help operators estimate their crop yields.

Yield information is based on each farm by crop per year. Multiple fields having similar soil characteristics and management for growing a particular crop can be combined to obtain a representative yield. The harvest of a crop can be documented on one or more dates and be based on a similar unit of weight for hay and percent moisture for grain. Once all of the crop harvest information is final, calculations are provided to determine yield estimates.

Grain factors are provided based on information from the University of Maryland Extension and the Penn State Agronomy Guide. On the bottom of each sheet there is a reminder to operators to include determined yields into their nutrient management plan record keeping requirements.