

***Everything you ever wanted to know about…*
*Nutrient Management in Maryland***

***(Well, almost … and better yet… some links on where to find the rest!)***

The University of Maryland Extension’s Agricultural Nutrient Management Program was established in 1989 as a cooperative effort between the University of Maryland Extension (UME) and the Maryland Department of Agriculture (MDA) to specifically address issues of nutrient management planning. During this time, nutrient management plans were based on nitrogen recommendations only and adoption of these plans was mainly voluntary. However, in 1998 the Water Quality Improvement Act (WQIA) was enacted and many changes were brought about which affected Maryland’s agricultural community. These changes included:

* nitrogen and phosphorus-based nutrient management plans
* reduction of the phosphorus in manure via feeding regimes
* provisions for transporting manure from fields with excessive phosphorus to fields needing additional nutrients
* increased scrutiny of record keeping
* additional evaluation of the nutrient phosphorus

As a result of the WQIA, Maryland promulgated the Maryland Nutrient Management Regulations to provide guidance on the implementation of the WQIA.

**What is a Nutrient Management Plan?**

A nutrient management plan is a document that combines soil test results, yield goals, and estimates of residual nitrogen in order to generate field-by-field recommendations. The purpose of the nutrient management plan is to help producers reduce nutrient pollution by balancing nutrient inputs with plant nutrient requirements, while at the same time optimize farm profits.

**Do You Need a Plan?**

You need a nutrient management plan if you have:

* $2500.00 or more in gross annual income from your agricultural operation
     **OR**
* Farm animals that collectively weigh 8,000 pounds or more

**How Do You Get a New or Updated Plan?**

**Lots of ways!**

You have a number of options available to you in the preparation of your nutrient management plan:

**1. Sign up to have UME write your plan:**

Natalia Salazar, the Montgomery County Nutrient Management Advisor for UME, is available to write agronomic plans (nurseries and greenhouses must use a private consultant – check out the Nutrient Management Consultant link below). Contact Natalia at (301) 590-2840 or nsalaza1@umd.edu to sign up for a plan. She can also assist you with:

* Demonstrating how to sample soil, manure, and plant tissue
* Pre-sidedress nitrate tests (PSNTs) (see [Nitrogen Recommendations for Corn Using the Pre-Sidedress Soil Nitrate Test](https://extension.umd.edu/sites/default/files/2021-02/SFM-2_April%202010.pdf))
* Fall soil nitrate tests (see [Fall Soil Nitrate Test](https://extension.umd.edu/sites/default/files/publications/EBR-15%20Fall%20Soil%20Nitrate%20Test.pdf))
* Yield checks
* Spreader calibration
* Loaning a limited numbers of soil probes for easier soil testing
* Educational materials
* Nutrient management presentations

**2. Hire a Private Nutrient Management Consultant:**

For an up-to-date list of Consultants for Hire [click here](https://mda.maryland.gov/resource_conservation/counties/NM_CONSULTANT_FOR_HIRE_DIRECTORY_2018.pdf). If you decide to hire a private consultant, you may wish to contact the Montgomery County Soil Conservation District (301-590-2855) to apply for cost-share assistance. This program can provide you with money to offset the cost of hiring a consultant. There is money available at this time but it is on a first come first served basis. Go to the link above for an updated list of private consultants.

**3. Become farmer certified and write your own plan**

The University of Maryland Agricultural Nutrient Management Program and MDA offer a farmer certification program that allows you to write your own plan. For more information, visit: [Farmer Training and Certification](https://extension.umd.edu/programs/agriculture-food-systems/program-areas/integrated-programs/agricultural-nutrient-management-program/farmer-training-certification).

**What Information Do You Need to Get a Plan Done?**

You and your Nutrient Management Advisor will need to gather the following information:

1.  Soil tests

You need a soil test for each field in production. Soil tests are valid for three years and the length of the plan is tied to the expiration date of the soil test. That means that if your soil test is two years old, you can only get a one-year plan!

* [Soil Sampling Procedures](https://extension.umd.edu/sites/default/files/2021-02/Soil%20Sampling%20Procedures.pdf)
* [Comparison of Soil Testing Labs](https://extension.umd.edu/sites/default/files/2021-02/Soil%20Testing%20Lab%20Comparison.pdf)

2.  Maps of all property in production

Each map needs to show the boundaries for all fields in production. Montgomery County Soil Conservation District (301) 590-2855 or Farm Services Agency (301) 250-4735 can provide you with very nice detailed maps. Google Maps® printouts with the fields drawn in are also suitable.

3. Operation records

Details on the type of operation you have and how you manage it, including:

* Planned crops and yield goals (based on the average of the best three years out of the last 5 consecutive years, if possible)
* Legumes grown in the last year as main crops or cover crops
* Applications of organic nutrient sources (e.g. manure, compost) this year and in the last two years
* Manure spreader application rate, preferably obtained by calibration (see [Manure Spreader Calibration](https://extension.umd.edu/sites/default/files/2021-02/EC-2%20Soil%20Fertility%20Guide.pdf))
* Fertilizer applications this year, if any
* Information about animals (numbers, average weights, number of hours in confinement, and amount of bedding used)

4.  Manure information (if applicable)

* If you have animals that collectively weigh 20,000 pounds or more and you’re collecting and applying manure (composted or not) to your fields, you will need a manure test. Manure tests are valid for one year.
	+ [Sampling Manure for Nutrient Content](https://extension.umd.edu/sites/default/files/2021-02/Manure%20Sampling%20Procedures%20NM-6.pdf)
	+ [Comparison of Labs Testing Manure](https://extension.umd.edu/sites/default/files/2021-02/Manure%20Testing%20Lab%20Comparison.pdf)
	+ The test must include: total nitrogen, ammonia-nitrogen, phosphorus, potassium, and percent moisture
* You don’t need a manure analysis if:
	+ You’re only applying manure to a personal garden that is less than 1 acre in size
	+ You don’t collect any manure from your animals because they’re never confined
	+ You bring in manure from outside your operation and you have less than 25 acres in production
	+ All your collected manure is removed from your operation.
		- If this is the case, you need to keep records of any person/company removing the manure, their address and phone number, the date of removal, and the amount removed

5. Test for compost/other organic nutrient source (if applicable)

* If you generate non-manure compost on your operation, you will need a compost test, which can be done by any lab that tests manure (see manure section).
* If you import compost or any other organic nutrient source without a manufacturer-guaranteed nutrient content into your farm, you only need to get it tested if you farm 25 acres or more or no book-values are available for nutrient content
* If you use commercial organic nutrient sources that come with a manufacturer-guaranteed nutrient content, you don’t need to get them tested

6. Tissue tests (if applicable)

* If you have any blocks of perennial fruits that are in the bearing stage and are over one acre in size, you need to get a tissue test for each block. Tissue samples are valid for three years.
	+ [Tissue and Soil Sampling for Perennial Fruit Crops](https://extension.umd.edu/sites/default/files/2021-04/Tissue%20Sample%20Perennial%20Fruit%20Crops%2005-2019%20V4.pdf)
	+ [Comparison of Labs Testing Plant Tissue](https://extension.umd.edu/sites/default/files/2021-04/Tissue_Lab_Comparison_8-1-2020.pdf)
	+ [Tissue Sampling for Vineyards](https://extension.umd.edu/resource/tissue-sampling)
* You don’t need tissue tests for any blocks that are not yet in the bearing stage

**Nutrient Applicator Vouchers**

If you’re spreading manure or fertilizer on 10 acres or more, you need a Nutrient Applicator Voucher. For more information on whether you need a voucher go to the Maryland Department of Agriculture’s website and view the requirements for [Nutrient Applicators](http://mda.maryland.gov/resource_conservation/Pages/nutrient_management.aspx%20).

You can obtain a voucher by attending a two-hour session at your local extension office. This voucher must be renewed at a two-hour class every three years. Contact Kelly Nichols, Agriculture Extension Agent at (301) 590-2807 or kellyn@umd.edu for more information.

**Where Can I Find Additional Information on Nutrient Management in Maryland?**

[University of Maryland Agricultural Nutrient Management Program](https://extension.umd.edu/programs/agriculture-food-systems/program-areas/integrated-programs/agricultural-nutrient-management-program)

[Maryland Nutrient Management Program](https://mda.maryland.gov/resource_conservation/Pages/nutrient_management.aspx)