



Is a lab analysis required for my organic nutrient source? (11/19)

Purpose

When an organic nutrient source, such as manure, compost, or biosolid, is deliberately applied to agricultural land as part of a fertility regimen, nutrient content information is required. In some instances, a laboratory analysis must be done to determine nutrient content as part of the development of a nutrient management plan (NMP). There are also situations in which average nutrient content, i.e. ‘book values’, or other nutrient content information is suitable. Information below is based on Maryland nutrient management regulations and Maryland Department of Agriculture (MDA) policy. This information does not pertain to Confined Animal Feeding Operations (CAFOs).

Definitions

Organic Nutrient Source	Organic nutrient sources include raw animal manure, compost, biosolids, organic by-products (such as meat/vegetable processing waste, wastewater effluent, etc.) and some commercially available products (such as bagged manure/compost products, fish emulsion, feather meal, etc.)
Organic Nutrient Source Lab Analysis	A lab test that will determine the nutrient content of an organic nutrient source. For nutrient management planning purposes, this test must include at a minimum total nitrogen, ammonium nitrogen, phosphorus, and potassium.
‘Book values’*	Average nutrient content of a particular organic nutrient source, including total nitrogen, ammonium nitrogen, phosphorus, and potassium. ‘Book values’ are published by the University of Maryland.
Personal Garden	A garden that is grown for personal use and not for the sale of any agricultural products. Per MDA policy, a personal garden on a farm that requires a NMP can receive no more than 150 lbs of plant-available-nitrogen (PAN) per acre per year and must be less than 1 acre in size.
Animal Unit	1 animal unit is equal to 1,000 lbs live weight of any given animal species.
Soiless Growth Media	A crop growing substrate that contains >50% organic matter, such as compost, perlite, peat moss, heavily amended soil, etc.
* Book values are available on the ANMP website: https://extension.umd.edu/learn/3-manure-sampling-and-testing	

Guidelines

The following table describes situations in which an organic nutrient source lab test is needed, or conversely where ‘book values’ can be utilized:

Situation	Is a lab analysis required?
All manure is deposited directly on pasture by the animals	Nutrient content information is not required
Organic nutrient source is produced/collected on farm but is completely exported off farm	Nutrient content information is not required
Organic nutrient source is produced/collected on farm and all or some is spread on farm	If the total number of animals on the farm > 20 animal units, lab analysis is required for any manure that is collected and will be applied.
	If the farm has ≤ 20 animal units, book values* can be used
Organic nutrient source is imported from another farm, but spread on my farm	If the receiving operation is > 25 acres, lab analysis is required
	If the receiving operation is ≤ 25 acres, book values* can be used
Organic nutrient source is produced/collected on farm and spread on personal garden	If personal garden is > 1 acre, lab analysis is required and garden must be included as a “field” in the NMP
	If personal garden is ≤ 1 acre, ‘book values*’ can be used
Biosolids are spread on my farm	In Maryland, permitted biosolids are required to have nutrient content information. Use Maryland Department of the Environment or MDA approved information** .
Commercially/municipally available organic nutrient source is spread on my farm (not including biosolids)	If required nutrient content information is specified on the label, a lab analysis is not required.
	If required nutrient content information is not supplied by the label, a lab analysis is required.
Crops are grown directly in soilless growth media high in organic matter.	If crops are grown in material containing >50% organic matter (as opposed to mineral soil), a soilless media test is required instead of a soil test.
*If book values are not available for a particular organic nutrient source, a lab test is required. **Available on the ANMP website: https://extension.umd.edu/learn/3-manure-sampling-and-testing	

**Additional
Information**

For more information about where to get an organic nutrient source lab analysis, see our comparison of labs testing manure/organic nutrient sources:
<https://go.umd.edu/ManureLabComparison>

For more information about where to get a soilless growth media lab analysis, see our comparison of labs testing growing media:
<https://go.umd.edu/GrowingMediaLabComparison>

General information is available on the ANMP website
<https://extension.umd.edu/learn/3-manure-sampling-and-testing>
