



Certification and Licensing Required to Land Apply NASM in Ontario

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Non-agricultural source materials or NASM's are applied in Ontario by individuals who are licensed or certified by the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA). After completing a required course(s), writing an exam to prove competency and to provide assurance that the material will be land applied according to the Nutrient Management Regulation, these individuals can create a NASM Plan and/or land apply NASM to agricultural land.

What is a NASM?

Non-agricultural source materials are those materials that do not originate directly from a farm operation. There are three categories of NASM:

Category 1 NASM includes unaltered plant materials such as:

- culled fruit and vegetables
- peels and pomace
- leaf and yard waste that has not been composted

Category 2 NASM includes processed plant materials such as:

- leaf and yard waste that has been composted
- organic waste that contains no meat or fish and derived from food processing such as:
 - a bakery
 - a cereal and grain processing facility
 - a brewery or distillery
- Wash water, including material that contain food grade cleaners, from cleaning the processing equipment and the surrounding area of:
 - a bakery
 - a cereal and grain processing facility
 - a brewery or distillery

Category 3 NASM includes all animal based products such as:

- Wash water, including material containing food grade cleaners, from cleaning the processing equipment and the surrounding area in a facility for processing,
 - Meat, eggs or dairy products
- Paunch manure
- Organic waste matter from grease traps and interceptors
- Pulp and paper biosolids
- Sewage biosolids, other than untreated septage

Nutrient Application Technician License

This license is required if you are applying nutrients to an agricultural operation that requires a NASM plan or a Nutrient Management Plan (NMP). The

Nutrient Application Technician License course is a one day course offered by OMAFRA and covers core competencies from the Nutrient Management Act including:

- Regulatory requirements of the NASM Plan or NMP
- Adoption of Best Management Practices
- Proper equipment calibration
- Accurate record keeping and contingency planning

NASM Plan Developers Certification

This certification is required if you wish to create a NASM Plan. Upon completion of the courses, two NASM Plan fictitious scenarios are required to be completed and are graded by OMAFRA. There are three required courses:

- Introduction to Nutrient Management
- NASM Plan Developers course
- How to prepare a NASM Plan Using NMAN 3

OMAFRA's NMAN computer program is an excellent tool used by NASM Plan Developers that accounts for all sources of nutrients applied to a farmer's field when using a NASM plan. NMAN tracks the addition of nitrogen, phosphorous and metals (many of which are considered beneficial micronutrients) to the soil based on the NASM analyses as imputed by the NASM Plan developer. In some cases, multiple applications and sources of NASM can be applied over 5 years and the NMAN program tracks the solids, nutrient and metal additions to ensure that the 5 year limit is not exceeded. After NASM has been applied to a farmer's field, the farmer receives a Post Application Report which summarizes the amount of nutrients and metals applied to the field. This is a great way to track the amount of nutrients and micronutrients received in pounds/ acre or kilograms/hectare and potentially make fertilizer reductions but also indicates and summarizes the percentage applied of the 5 year allowable safe limit.

Summary

The licensing, certification and training of Nutrient Application Technicians and NASM Plan Developers is welcome by the professionals within the land application industry in Ontario. Licensing and certification ensures responsible application of nutrients to agricultural land while protecting the natural environment.

*Ontario Regulation 267/03 (Nutrient Management Regulation), Schedule 4, Categories of Non-agricultural Source Materials, Table 1, 2 and 3 (partial list).

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There are over 500 Certified Crop Advisers (CCA) in Ontario. Each CCA has demonstrated their knowledge about Ontario crop production by passing the required exams. In addition, they have the crop advisory experience, the education, the commitment to continuing education and have signed a comprehensive code of ethics, which places the grower's interests first.

This industry driven program helps ensure that Ontario crop producers are well served by those providing their crop production advice. This article was written by one of those CCA's.