

ENVIRONMENTAL MANAGEMENT NEWSLETTER

A Quick Update on Nutrient Management

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OBSERVATION AND SHUT-OFF STATION REQUIREMENTS FOR NUTRIENT STORAGE PART 2: A FOLLOW-UP TO LAST MONTH'S ARTICLE

IN THIS ISSUE

- Observation and Shut-off Station Requirements For Nutrient Storage: Part 2: A follow-up to last month's article
- Understanding the Conditions of a NMS Approval. Condition 7: Review of the Nutrient Management Strategy with the Authorized Agent
- Focusing on Soil Sampling: Science Replaces Trial and Error in Soil Fertility
- NMAN 2: Answers to Frequently Asked Questions
- Dates to Remember
- Wish you could read more articles like this? You can! Visit the OMAFRA website under Nutrient Management Quick links or use the link on the back page of this newsletter.

Jim Arnold, Engineer, Environmental &
Richard Brunke, Engineer, Nutrient Management

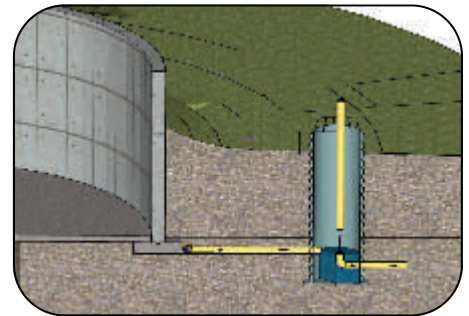
Methods for monitoring water in the observation/shut-off station can include visual and odour inspection, as well as water sample testing. Manure odour, coloured water, bubbling or foaming are all indications of possible contamination from manure. Water samples should be tested for bacteria and nitrates to determine whether manure is present in the sample.

Caution must be exercised when a manure storage is being emptied. If a spill occurs on the ground surface near the tank, manure may penetrate to the foundation drainage system and be detected in the observation/shut-off station. Although this may be an isolated event that does not represent leakage of the manure tank, fouled water must be shut off and prevented from discharging to the drainage system.

It is the responsibility of the owner of the manure storage to monitor the water quality in an observation/shut-off station. Suggested monitoring times are:

- during periods of manure agitation and storage pump out
- when water tables are high and soil is saturated during spring and fall.

The manufacturers/suppliers listed below are possible sources for corrugated steel or plastic pipe materials to construct observation shut-off stations, or for purchasing complete fabricated units. Some stations may have standard sizes and lengths of standpipe with an inlet and outlet at the base, and some may fabricate the complete unit on a custom basis. Contact the manufacturer/supplier for costs.



An observation and shutoff station is used to provide access to the discharge from a perimeter drain. Possible contaminated flow can be observed and blocked. Steps can then be taken to address the situation.

The references are in alphabetical order and were taken from OMAFRA publication #832 *Agricultural Erosion Control Structures* updated 02/2008.

To obtain a copy of this manual, contact Service Ontario Publications at www.publications.serviceontario.ca/

ARMTEC

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UNDERSTANDING THE CONDITIONS OF A NMS APPROVAL

Condition #7: Review of the Nutrient Management Strategy with the Authorized Agent

Matt Wilson, Environmental Specialist

When a Nutrient Management Strategy (NMS) is approved, a number of conditions are placed on that approval. The person identified as the farm unit owner is required to meet the conditions listed in their Letter of Approval.

Condition #7, listed in every letter of approval states:

“The Owner will review the approved nutrient management strategy and conditions attached to the approval with the authorized agent (as per the Nutrient Management Strategy and/or Plan Sign-Off Form), if different from the Owner, within 30 days of receiving the approval. And, within 40 days of the nutrient management strategy being approved, the Owner will notify the Ministry in writing that the review has taken place”.

The purpose of condition #7 is to ensure that the owner of the farm understands what is contained in their approved nutrient management strategy. If a consultant prepares a strategy, it is expected that they will explain the approved strategy, including the contents of the approval documents to the farmer. The nutrient management strategy (NMS) is a legal document and a farmer is required to follow it. Some examples of what a farmer needs to be aware of in their approved strategy are:

- how runoff is managed on their farm
- if extra bedding is used in their nutrient management strategy
- their record keeping requirements under the Nutrient Management Act
- how to keep their nutrient management strategy up to date
- when their nutrient management strategy will expire.

As stated in condition #7, the “owner” is responsible to notify OMAFRA in writing that a review of their NMS has occurred. If this notification is not completed and submitted within the specified times, the condition will remain on the approval. Problems may arise the next time the farm needs an approval from the ministry or when the Ministry of the Environment inspects the farm.

FOCUSING ON SOIL SAMPLING

Science Replaces Trial and Error in Soil Fertility

Keith Reid, Soil Fertility Specialist and Shane Tomey, Environmental Specialist

Knowing how to get the ‘real dirt’ on your soil can improve your bottom line. If you’ve noticed parts of your crop field are doing better than other areas, it may be a sign that there’s something wrong with the soil. Just what is at the root of the problem might not be evident above ground for several years. Farmers can save time and money and improve their crop yield by conducting a soil test. Farmers also need to be aware of regulatory requirements that may apply to them under the Nutrient Management Act, 2002 and regulations.

Keith Reid, Soil Fertility Specialist with Ontario’s Ministry of Agriculture, Food and Rural Affairs (OMAFRA) likens the need for soil testing to checking the oil periodically in your vehicle. “When the oil light comes on, it’s a clear sign there’s a problem and some damage may already have been done. Similarly, by the time there are visual signs of a problem in your field, yield has been lost and profits have been affected.” Reid advocates soil testing to eliminate the guesswork.

The three-step process of soil sampling starts by selecting an area to test. A large field needs to be divided into small sample areas of 25 acres or less. The next step is to obtain the actual soil sample.

Plants take up most of their nutrients from the top six inches of soil. Using a soil probe, a farmer needs only to take a sample of six inches. Reid recommends that you take at least 20 core samples in a zigzag pattern through a field. The final step in the process is the scientific evaluation of the soil samples. A list of accredited soil sampling labs is available on OMAFRA’s website.

Soil test results help a farmer to address a specific soil deficiency. Reid recalls one farmer who struggled for four years with poor yields. The farmer assumed his soil lacked phosphorous and he kept adding it to the soil. When the situation didn’t improve he tested the soil and discovered it was a lack of potash that was causing the problem. Fortunately for the farmer, following the soil test results ended four years of poor field returns and the expense of unnecessary fertilizer.

In addition to the production and economic benefits to soil sampling, farmers who have an operation that is phased-in with a Nutrient Management Plan must also be aware of the regulatory requirements concerning soil testing. Default test values may be used in the first plan for a farm operation. When plans are renewed after 5 years it is required that soil samples are taken and used in the preparation of the nutrient management plan.

Farmers can access resources to stop the invisible loss. *Soil Sampling and Analysis for Managing Crop Nutrients* (factsheet number: 06-031) can be found at www.omafra.gov.on.ca/english/engineer/facts/06-031.htm. For more information about soil sampling farmers can call OMAFRA’s Agricultural Information Contact Centre at 1-877-424-1300.



NMAN 2: ANSWERS TO FREQUENTLY ASKED QUESTIONS

Matt Wilson, Environmental Specialist

The majority of the nutrient management strategies submitted for approval are being prepared with the NMAN 2 software. While this shows that consultants are becoming more comfortable with the software, here are the answers to a few frequently asked questions.

DO I HAVE TO USE THE FARM UNIT DECLARATION FORM AND SIGN OFF FORM THAT ARE GENERATED BY NMAN 2?

No, the farm unit declaration form and the nutrient management strategy signoff form are both still available and accepted by the approvals unit. A consultant may choose to use either the forms generated by NMAN 2 or the forms available on the OMAFRA website, which ever is more convenient.

WHAT IS THE DATE THE APPROVALS UNIT WILL NO LONGER ACCEPT SUBMISSIONS FROM THE R4 VERSION OF NMAN?

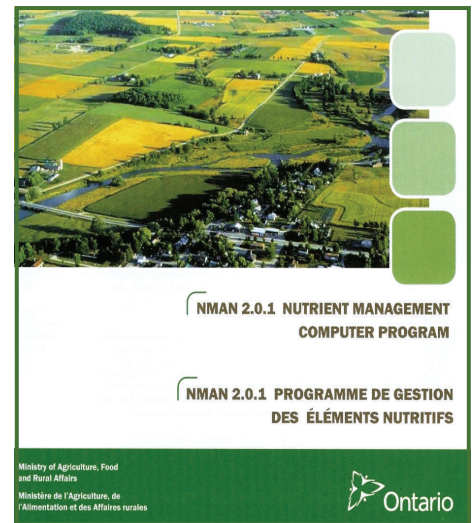
The cut-off date is **December 1, 2008**. On this date only submissions using the NMAN 2 software or the nutrient management strategy application form will be accepted.

IS THERE TRAINING AVAILABLE FOR NMAN 2?

Yes, the *How to Prepare a Nutrient Management Strategy and Plan (using NMAN)* training course has been revised and revamped to incorporate the new NMAN 2 software. This is an in-depth, two day course that covers the functions of the software and how they are best utilized. If you are having challenges with the new software, this course is highly recommended.

For more frequently asked questions on NMAN 2, please go to:

<http://www.omafra.gov.on.ca/english/nm/nman/fagsoftware.htm#NMAN201>



DATES TO REMEMBER:

August 20-21, 2008
Hastings Farm Show

September 9, 10, 11, 2008
Canada's Outdoor Farm Show -
Woodstock

December 1, 2008
Only submissions using NMAN 2 or
the Nutrient Management Strategy
Application Form will now be accepted

WE WANT TO HEAR FROM YOU!

Do you have questions? Need more information?
Have a comment about what you'd like to see in the
next issue? Please contact your area Environmental
Specialist at:

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VISIT

US

ONLINE:

<http://www.omafra.gov.on.ca/english/nm/newsletter/emn.htm>

Nutrient Management Information Line: 1-866-242-4460
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www.ontario.ca/omafra