

LMMMR News

News from Conservation's Environmental Services: Livestock Section

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***Reminder: Manure Application Limitations during the Winter ***

All livestock operators who are currently applying manure in the winter are strongly encouraged to plan for the imminent prohibition which will apply to all operations. Details on prohibition on winter manure application are as follows:

- Winter is defined as between November 10 of one year and April 10 of the following year. It includes November 10 and April 10.
- Operations 300 AU or greater in size are prohibited from winter manure application.
- Operations which expanded or established after spring 2004 are prohibited from applying manure in the winter.
- **Operations of 300 to 400 AU established prior to spring 2004 will be prohibited from winter manure application as of November 10, 2010.***
- **All operations of 300 AU or less will be prohibited from winter manure application as of November 10, 2013.***

*Operations that are not currently prohibited from winter manure application must follow setback requirements in Schedule B of the *Livestock Manure and Mortalities Management Regulation*.

New: Updated Manure Management Plan Form

Manitoba Conservation staff recently updated the manure management plan (MMP) form. It now allows for entry of multiple manure analysis, if the manure concentration is not the same for all spread fields.

For example, if manure is being pumped from an un-agitated storage or from the second cell of a multiple cell storage system, it may be lower in phosphorus (P) content. This can be important if certain fields are above 60 ppm soil test P, and application rates are restricted based on crop removal of phosphate. In this scenario, the producer may want to spread the lower P portion of the manure to those fields rather than reduce the application rate substantially.

This is just one option, and the MMP now makes it easier to document by allowing these optional analysis to be shown on a single manure analysis page. To discuss more options to manage P you may contact Clay Sawka, Nutrient Management Specialist, Manitoba Agriculture Food and Rural Initiatives (MAFRI) at 204-750-3066. For information on P compliance expectations and regulatory interpretation you may contact Bryce Wood, Phosphorus Regulation Officer, Manitoba Conservation at 204-945-6423. Another source of information is factsheet titled Budgeting for Phosphorus – How Efficient is Your Farm? located on the MAFRI website at the following address: http://www.gov.mb.ca/agriculture/soilwater/nutrient/pdf/mmf_budgeting_for_phosphorus.pdf

To download your copy of the new MMP form, visit Manitoba Conservation's website at: <http://www.gov.mb.ca/conservation/envprograms/livestock/index.html> If you do not have internet access, call 204-945-3078 to obtain a copy of this new form.

Environmental Livestock Program

Environmental Services

Manitoba Conservation

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2010 Manure Management Plan Audit

The 2010 Manure Management Plan (MMP) Audit will soon be underway. Nearly 500 MMPs were filed for the 2010 crop year and 10% were randomly selected for the audit, including several predetermined operations. Notification letters will soon be sent to the selected operations.

When weather conditions permit, spring sampling will begin and continue throughout the summer, with our primary focus on pasture and hay fields. Once annual crops have been harvested, the remainder of the fields will be sampled until freeze up.

Selected fields will be soil sampled for nitrate-nitrogen levels at a 0-60 cm (0-24 in) depth as well as, an additional soil sample taken at a depth of 0-15 cm (0-6 in) for phosphorus concentrations. Fields are sampled using standard soil sampling protocols, taking a minimum of 15-20 samples per field, which are then composited and sent for analysis.

Legal sampling protocol is strictly followed when handling and submitting soil samples for analysis. Samples are sealed and kept on ice or placed in cold storage until delivered to the soil analysis laboratory.

Disposal of End-of-Lay Hens

Egg lay operations manage routine mortalities arising from the normal daily mortalities rate of chickens and end-of-lay hen culls. Proper disposal of mortalities is subject to Section 15 of the *Livestock Manure and Mortalities Management Regulation (LMMMMR)* MR 42/98. The low rate of daily mortalities (annually 1% to 3% of the inventory) allows a proper disposal of the mortalities using any of the four methods prescribed in Section 15(2) of the *LMMMMR*. In the case of end-of-lay hen culls, the operation's entire flock or the entire inventory of a production unit are culled. The culls exceed the routine mortality rate and are treated as non-routine mortality. In such a case of mass mortalities, the disposal is subject to Section 15(6) of the *LMMMMR* that requires notifying Manitoba Conservation and disposing the culls in a manner acceptable to the department. Owing to the inevitable yearly disposal of bird inventories at egg producers' sites, and regardless of a disposal method chosen, producers must inform Manitoba Conservation of their plans and obtain an authorization prior to disposing of the non routine mortalities.

Traditionally, poultry producers have relied on rendering services to dispose end-of-lay hen culls. Today, due to very limited rendering services, producers are looking for other options. Manitoba Conservation does not accept burial of end-of-lay hen culls, and will only consider it acceptable on an exceptional basis. The other option has been disposal at a licensed landfill that depends on the permission from the landfill operator; disposal in a landfill may be associated with additional costs. An alternative to the above options is mortalities composting, which is considered as an environmentally sound disposal method if done properly.

Composting of end-of-lay hen culls is subject to Section 15.1(1) of the *LMMMMR* whereby:

- Composting sites must be located at least 100 m away from surface water, sinkhole, water well and property boundaries; and
- The site must provide adequate surface water, groundwater and soil protection

To obtain approval by the Director, the operator must submit details about the composting process and the location of the facilities. Manitoba Conservation staff from Environmental Engineering Section will assess the suitability of the proposed site. Where necessary, the Director will provide conditions for the construction of the composting facilities.

Acceptable composting facilities include composting treatment stations (within buildings, closed or partially closed), in-vessel composting systems, composting sites with engineered and impervious bases and windrow composting. Where composting is carried out on an earthen base, the soil at the site must have a hydraulic conductivity of 1×10^{-6} cm/sec or less. Depending on soil conditions, clay or plastic liners or a concrete base may be required to adequately protect soil and groundwater from pollution.

The following documents can be used to facilitate producers' written submissions of end-of-lay culls composting plans to Manitoba Conservation:

- An application form prepared by Manitoba Conservation:
http://www.gov.mb.ca/conservation/envprograms/livestock/pdf/2009-11-19_auth_app_form.pdf
- Composting Guidelines prepared by MAFRI:
<http://www.gov.mb.ca/agriculture/livestock/composting/com02s00.html>

If you need more information please contact the District Supervisor for your region. **The contact number for your region is provided at the end of this newsletter.**

New Staff Member: Bereket Assefa's Bio

Bereket Assefa, P.Eng., recently joined Manitoba Conservation as a Senior Environmental Engineer. In his position with Manitoba Conservation, Bereket is mainly responsible to provide professional engineering services and leadership to environmental engineers, regional staff and other departmental staff related to engineering aspects of the *Livestock Manure and Mortalities Management Regulation*.

Prior to joining Manitoba Conservation, Bereket worked as an Environmental Engineer at a Manitoba based Consulting Engineering and Project Management firm. While consulting with the firm, Bereket was involved in investigation, engineering design, and review of wastewater treatment facilities and solid waste disposal grounds. His responsibilities

included environmental site assessments, geotechnical field investigations, and feasibility studies.

Bereket received a B. Sc. Degree in Agricultural Engineering and Mechanization from Addis Ababa University, Ethiopia, a M. Sc. Degree in Soil Science from the University of Saskatchewan (U of S), and a Ph. D. Degree in Biosystems Engineering from the University of Manitoba (U of M). He has published various technical papers in referenced journals and conference proceedings from his research undertakings at U of S and U of M. He is a member of the Association of Professional Engineers and Geoscientists of Manitoba, the Canadian Society of Bioengineering, and the American Society of Agricultural and Biological Engineers.

Who are you going to call?

Manure management plan, engineering and source water analysis questions should be directed to Environmental Services. Matters regarding all other aspects of the *Livestock Manure and Mortalities Regulation* should be directed to Environmental Operations. For reporting a spill, emergency spreading, or any emergencies, call your Environmental Operation contact.
After hours, use the emergency response number.

Emergency Response 944-4888	
Environmental Services	<p>Manure Management Plans Ph: 945-3078 Winnipeg</p> <p>Source Water Administration Ph: 945-5168 Winnipeg</p> <p>Engineering Section 945-7084</p>
Environmental Operations	<p>Eastern Ph: 346-6060 Steinbach</p> <p>Western Ph: 726-6064 Brandon Ph: 622-2030 Dauphin</p> <p>Central Ph: 945-7100 Winnipeg Ph: 642-6095 Gimli Ph: 239-3204 Portage La Prairie</p>