

#### MANITOBA CONSERVATION

Headquarters Operations Livestock Environmental Program

### **MMPFiler**

Manure Management Plan Filer Software

#### MANURE MANAGEMENT PLAN FILER SOFTWARE

#### **User Manual**

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#### The MMPFiler

The MMPFiler software is not a nutrient management extension software. Instead, it was designed by professionals from Manitoba Conservation with the objective of helping Manitoba's livestock producers track their manure management activities and register manure management plans with Manitoba Conservation in compliance with The Livestock Manure and Mortalities Management Regulation MR 42/98.

MMPFiler

Purpose

he *Livestock Manure and Mortalities Management Regulation* MR 42/98 was enacted in 1998. Since that date, the number of livestock manure management plan annually registered with Manitoba Conservation has grown to over 400 plans per year. Livestock producers, professionals working with larger livestock producers, and consultants involved in the development of manure management plans have gained considerable experience in preparing plans meeting the requirements of Manitoba Conservation. Barring the initial challenges encountered with a very first manure management plan, many of the individuals working on the development of manure management plans have made suggestions for improving forms and filing process.

As the number of manure management plans grew to hundreds, it became clear that improvements to the manure management plan filing process were necessary to ensure effective communication with and timely feedback to livestock producers. The Manure Management Plan Filer software (MMPFiler) was designed with the objective of helping livestock producers, and those preparing a livestock manure management plan on their behalf, comply with the filing process and the terms of *The Livestock Manure and Mortalities Management Regulation* MR42/98. It allows for entering all the data required for registering a plan, preparing amendments to a plan and even forwarding a spreading confirmation to Manitoba Conservation. MMPFiler generates printouts of manure management plans on forms approved by Manitoba Conservation. MMPFiler also allows for electronically filing ("e-filing") of the plans, amendments or spreading confirmation.

While MMPFiler is suited for users familiar with general nutrient management principles, as applied to management of livestock manure, it is not an extension software meant to demonstrate the value of livestock manure or that easily lends itself to trying out alternative manure application scenarios on a field or at the farm level. MMPFiler is aimed at *users* that routinely assess crop nutrient needs on the basis of soil test reports and rely on manure analyses as a basis for calculating anticipated manure application rates.

MMPFiler

Target Users

Registered users of MMPFiler will be personally updated, from time to time, about any changes to forms or manure management plan filing process and, when applicable, will receive updates of the software.

The purpose of this user manual is to complement the MMPFiler software. It contains detailed instructions and explanations for each menus and forms of the software, as well as steps to follow. While this user manual is designed to cover potential issues that may challenge users, it is quite likely that some steps or information requests may appear as unclear. In that event, we welcome any suggestions to improve the clarity of this user manual and the operation of the MMPFiler software itself.

Reference documents consulted in developing MMPFiler include the Farm Practices Guidelines for Dairy/Hog/Poultry Producers in Manitoba (MAFRI, 1998 and later), The Soil Fertility Guide (MAFRI, 2001), the Tri-Provincial Manure Application and Use manual, and the MARC98 (MAFRI, 1998) software. These documents contain a wealth of agronomic information that will be useful to users. Users requiring assistance with basic nutrient and manure management principles can consult with professional agrologists with Manitoba Agriculture, Food and Rural Initiatives or private companies that provide consulting services on this topic. Other software, such as MARC98, may also be helpful in estimating manure and nutrient application rates or strategy on the farm.

MMPFiler

Agronomic Advice

Sylvio Tessier, P. Eng. Mike Kagan, P. Ag Livestock Environmental Program Headquarters Operations, Manitoba Conservation.

Proper installation is important to facilitate the updating of the software, as this will likely be required with any significant changes to The Livestock Manure and Mortalities Management Regulation MR 42/98. In addition, should users need assistance with MMPFiler, a careful installation will help pinpoint the causes for difficulties.

#### System Requirements & Installation

The MMPFiler software is a database application built within the Microsoft ACCESS  $2002^{\text{TM}}$  environment as an executable database software. The system requirements are the same as for using ACCESS  $2002^{\text{TM}}$  or more recent versions of ACCESS<sup>TM</sup>.

#### System Requirements

M M P F i I e r

General Requirements

Microsoft ACCESS  $2002^{\rm TM}$  requires a computer of moderate processor speed and memory capacity. Below is a table of system requirements suggested by Microsoft Corporation for ACCESS  $2002^{\rm TM}$ .

Computer/Processor Computer with Pentium 133 megahertz (MHz) or hi processor; Pentium III recommended.	
Operating System	Windows 98, Windows 98 Second Edition, Windows Millennium Edition (Windows Me), Windows NT 4.0 with Service Pack 6 (SP6) or later, Windows 2000, or Windows XP or more recent.
Display Monitor	Display monitors of 17" or larger are best suited for a full screen view of MMPFiler screen menus.



A computer screen dimension of 430 mm (17") is preferable for proper viewing of MMPFiler menus screens. While a smaller computer screen will still work, the user will often have to scroll down on the screen's scroll bar to view the bottom of the menu. In some situations, setting a display monitor to a greater resolution will allow for viewing even the largest forms of MMPFiler.

#### Software Requirements for MMPFiler

As MMPFiler is an executable application based on the Microsoft ACCESS 2002<sup>TM</sup> software, either a licensed copy of this software (or more recent version) or else a runtime version of ACCESS 2002<sup>TM</sup> is required. Owing to important changes made to Microsoft ACCESS after year 2000, MMPFiler cannot be run with ACCESS 97<sup>TM</sup> or ACCESS 2000<sup>TM</sup>. A free runtime version of ACCESS 2002<sup>TM</sup> can be downloaded from Manitoba Conservation's Website. The Microsoft ACCESS 2002<sup>TM</sup> and more recent versions are included in the Microsoft Office 2002 Professional Edition<sup>®</sup> and the 2003 edition of the software suite.

MMPFiler

**□** Software Requirements

Users that have a licensed version of ACCESS  $2002^{\text{TM}}$  or later version can simply launch MMPFiler (mmpfiler.mde) as any other ACCESS document. No other software is required. Users that do not have a licensed version of ACCESS  $2002^{\text{TM}}$  or later version may use the runtime version of ACCESS  $2002^{\text{TM}}$ . No other software is required.

#### Installation

Two downloadable installation packages are available on Manitoba Conservation's website at <a href="www.gov.mb.ca/conservation/regoperations/livestock/index.html">www.gov.mb.ca/conservation/regoperations/livestock/index.html</a>. One version is for users that already have a recent version of the ACCESS<sup>TM</sup> software (2002 or more recent), while the other is for *users* who do not, and that will require the installation of a free runtime version of ACCESS 2002<sup>TM</sup>.

Users that own a licensed version of Microsoft ACCESS  $2002^{\text{TM}}$  can download the smaller installation package "MMPFiler" which contains the software files in a compressed folder. Simply download the compressed folder and save it onto a suitable temporary location on your computer hard disk.

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Users of ACCESS 2002

Users that do not own a licensed version of Microsoft ACCESS 2002™ or later, must download the larger installation package "MMPFiler+ACCESSrt", which contains both the software files for MMPFiler and a runtime version of ACCESS

Users that have a Microsoft ACCESS97™ already installed on software computer may experience issues after installing the runtime version of ACCESS 2002™. Known issues relate to trying to launch the older version of ACCESS™ after installing the runtime version. Preferably, any previous versions for ACCESS $^{\text{TM}}$  should be uninstalled prior to installing MMPFiler+ACCESSrt. Where users had created databases with earlier versions of ACCESS<sup>TM</sup> will be able to convert their databases to the ACCESS 2002<sup>TM</sup> format easily. unless the databases contain macros. In the later cases, these macros will have to be re-created.

2002<sup>™</sup>. The installation package includes an installer that will guide the *user* for proper installation of both the runtime version of ACCESS 2000<sup>™</sup> and the MMPFiler software. Temporarily save the downloaded files in a folder or on your desktop for deleting after installation, or place it in an appropriate folder on your hard disk for later retrieval.

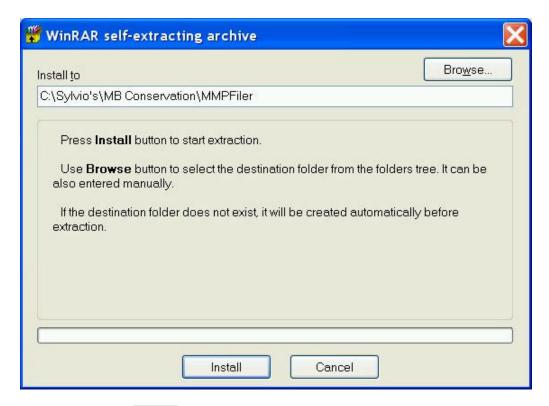
DOWNLOADING

Users Without ACCESS



The installation of the software is similar for both software packages. Once the appropriate software package is downloaded from the Livestock Environmental Program of Manitoba Conservation, simply launch the installer (MMPFiler or MMPFiler+ACCESSrt) from the location where you have temporarily saved it.

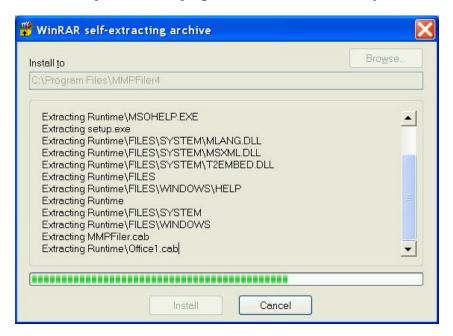
The software package is a self extracting archive comprised of the MMPFiler "Set Up" installation program and, if the larger MMPFiler version was downloaded, a runtime version of ACCESS 2002<sup>TM</sup>. A first prompt screen requests to choose or accept a default location where the software will be installed.



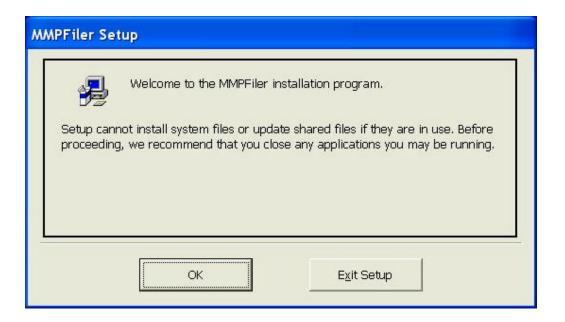
By clicking on the Browse button on the *WinRAR self-extracting archive* screen, you can select a general location, such as the \Program Files\ directory, create a new folder, and rename it.



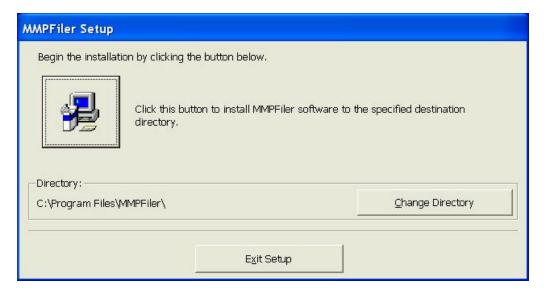
The next screen shows the progress in copying files into a temporary folder. Once the files are extracted, the "SetUp" installation program is launched automatically.



The installation program first requests to close any application that may use any of the files usually installed along with MMPFiler or the runtime version of ACCESS 2002<sup>TM</sup>.



The last step consists of approving of the installation directory for the MMPFiler software and launching the final installation by clicking on the installation icon.



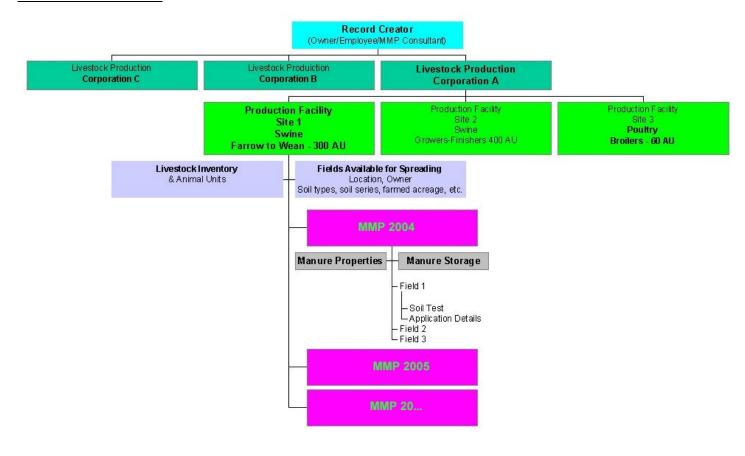
#### MMPFiler - Database Structure

MMPFiler is primarily a database designed to organize the information required for developing livestock manure management plans and for assisting in filing them with Manitoba Conservation in accordance with *The Livestock Manure and Mortalities Management Regulation* MR 42/98. This database allows simplifying the repetitive tasks of entering operation sites and field information, as well as preparing manure application confirmation forms.

MMPFiler TREE

Virtual Structure

Understanding the database structure may help in preparing the information and filing in the general information requested in the very first forms that arise upon initial use of MMPFiler.



The database can be thought as a file cabinet with a series of folders that are interrelated. Some folders may be used to file permanent information, such as an *operation*'s name and location, while some folders that are associated with the *operation* may be more dynamic, which need to be entered or updated on a yearly basis, as is the case of manure management plans.

#### Main Components of MMPFiler

The software allows for many "record creators", the individuals that enter the data or develop manure management plans. The *record creator* acts on behalf of a *corporation* or farm entity, be it as an employee, owner or consultant. MMPFiler places no limits on the number of *corporations* that can be worked on interactively.

MMPFiler STRUCTURE

Record Creator

Each *corporation* may have a single site or barn for livestock production, may have multiple sites, or multiple livestock species. To some extent, the regulatory requirements dictate how the information should be entered for corporations that have multiple sites and livestock species. While the information on the *corporation* is fairly limited in MMPFiler, this is one main folder in the database. For family farms or

MMPFiler STRUCTURE

Corporation

Livestock Production Corporation A *corporation* that own a single livestock production site, the corporation information may simply be the same as that requested for the *operation* production facilities.

In some situations, a larger corporation may own or manage two or more production sites or facilities that operate independently. Whether or not each of the production facilities needs to file a separate manure

Production Facility Site 1 Swine Farrow to Wean - 300 AU

management plan largely depends on past registration practices, or advice from the Livestock Environmental Program of Manitoba Conservation. For example, if the current practice is to register a manure management plan for four independent production sites of a *corporation* that has in fact six barns at different locations, where two of them fall below the animal unit number triggering the mandatory registration of a manure management plan, then four *operations* should be created with the intent of developing complete manure management plans for each of them. MMPFiler allows to develop manure management plans for the other two *operations*, but they need not to be submitted for registration.

The *operation* is associated with a particular site, an owner and, sometimes, a manager. This information is part of the *operation* main folder. Another obvious

Livestock Inventory
& Animal Units

MMPFIIer STRUCTURE

Operation Information

characteristic of the *operation* is the type and number of livestock reared at the operation's facilities. This information does not change often, and can be placed in a folder that does not need the attention of the user unless a change requires updating of the information.

MMPFiler STRUCTURE

Each *operation* can have a series of fields that are available for manure application. Permanent information such as legal description of the location, field codes, soil types

Fields Available for Spreading
Location, Owner
Soil types, soil series, farmed acreage, etc.

and soil series name, and surface available for spreading is entered in the *operation* information folder. This is also where the user can save information on the land owner, etc...

MMPFiler STRUCTURE

The Manure Management Plan MMP 2005

The manure management plan "folder" is the most dynamic element of MMPFiler. This folder groups all information from manure types and

volumes available for spreading, storage system and location, and selection of fields for spreading. This folder is updated yearly, and its usefulness lies in the ability to systematically enter the information, update it as required and file it from a report printed out or electronically.

Manure Properties

Under each *operation*, comprehensive manure management plans can be specifically developed on a yearly basis. These manure management plans are in fact a repertoire of information describing manure management activities, inclusive of lists of fields where manure spreading is anticipated for that particular *cran year*, soil test report history intended spreading method, etc. In

for that particular *crop year*, soil test report history, intended spreading method, etc. In addition, more than one manure management plan can be developed in the same year for the same *operation*, as this is required when an *operation* that spreads both liquid and

solid manure. Each of these manure types possess different nutrient contents and have different equipment for spreading, and consequently two separate manure management plans allow to clearly indicate what manure is applied where and how.

Field 1

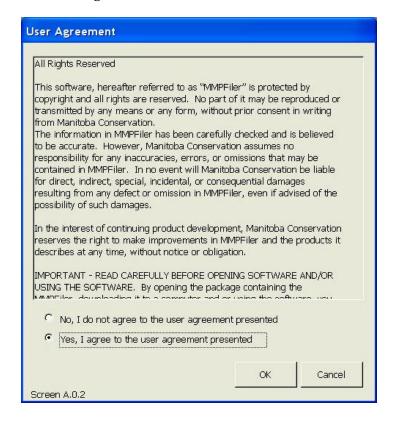
Soil Test
Application Details

Finally, alternative manure management practices, such as treatment or transfer to third parties are also part of the manure management plan. The relevant information can be entered in the manure management plan folder in lieu of or concurrently with the more common information on manure spreading practices.

Once MMPFiler is installed and launched, the user will be prompted for entering specific information on the corporation, the operation, its livestock inventories, and the fields that will be used for manure application. The user should have this information at hand when first launching MMPFiler.

#### **Getting Started**

pon first use, MMPFiler requires confirmation that users read and conform to the terms of a User Agreement for this copyrighted software. The software will not launch unless the users indicate their consent to comply with the User Agreement.



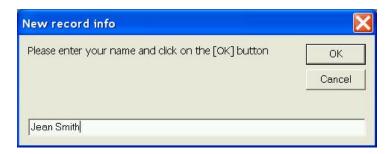


Next, MMPFiler requests a limited amount of information on the main *user* to customize this version of the software. This information is mainly for the user's own reference and will not be included as part of the manure management plan information. Once this basic information is entered, the *user* is presented with forms to enter basic data for the first corporation and operation.



The *user* name information is for the *user*'s viewing only. If the *user* chooses to electronically file or "e-file" a manure management plan, this information is not sent along with the information on manure management.

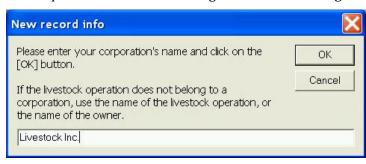




#### **Corporation Data**

In the event that the *user* develops manure management plans for a *orporation* that owns or manages more than one livestock operation, the *orporation* name should be repeated on each of the documents related to the manure management plans. The *orporation* name is first entered and will be used throughout all forms and documents produced by MMPFiler. *Operations* that are incorporated can simply repeat the operation's name in the *Corporation* information. The *orporation* information is the umbrella folder under which one or more *operations* information can register a manure management plan.





Finally, the *user* may include any other relevant information that he or she may deem useful in the last prompted menu. Again, this information is for the benefit of the *user* and is facultative; these comments are not exported with the *operation*'s data with the "Export" function of MMPFiler (see Chapter 8 for a description of MMPFiler's Export function.



#### Data Entry for a First Operation

Once the very basic *corporation* or company information is entered, MMPFiler immediately prompts the *user* for entering specific information for a first livestock *operation* via the <u>Livestock Operation</u> form.

The use of <u>Livestock Operation</u> form is covered in Chapter 5. A virtually limitless number of other operations can be added later, using the same form via the "Livestock operation portal" form, which is discussed in Chapter 7.



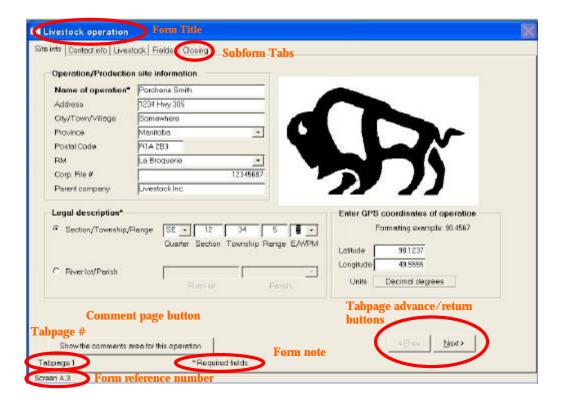
#### **Forms**

MMPFiler generates a series of forms to guide the user when entering data. At first launching, these forms are presented to the *user* one after the other. Once a first *operation* is entered in the database, the *user* can navigate between these forms to update specific data, develop new or amend manure management plans, or perform any other activity pertaining to the registration of the plans.

For reference in this user manual and for any other assistance, all MMPFiler forms are identified. Each form has a form title, such as <u>Livestock operation</u>. Some forms may be comprised of a series of sub-forms, referred to as "tabpages". The tabpages can be accessed via the tabpage's tab, located at the top of the form, or by toggling the tabpage <u>Prev</u> or <u>Next</u> buttons in the lower right corner of the form.

FORM DESIGN

Form Identification

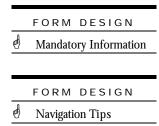


For precise referral to a specific form, the form is also identified by a "Screen" number located in the lower left corner of the form, such as the "Screen A.3" reference in the figure above. Similarly, tabpages also have a number, and the <u>Site Info</u> tabpage of the <u>Livestock operation</u> form could be referred as "Tabpage 1 of Screen A.3".

Some forms also feature buttons for additional comments, while other have specific notes to draw the attention of the *user* to mandatory fields or other information.

When a form features mandatory fields to be filled in, the *user* must enter appropriate information in these fields before they can proceed to the next form or sub-form. If a mandatory field is not filled in, a reminder message appears on the screen.

The *user* can easily navigate within a form by clicking on tabpage tabs, located near the top of the form, or between subforms and forms by clicking the <a href="Prev">Prev</a> or <a href="Next">Next</a> buttons. However, where tabpages or subform require filling in fields, mandatory fields must be filled in with information before the *user* can proceed to another form or tabpage.



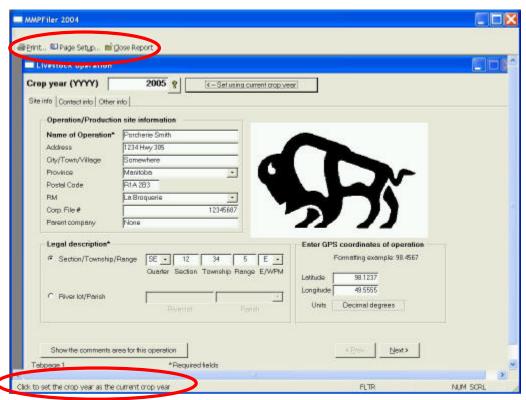
#### **MMPFiler Tools**

MMPFiler tools are located just below the MMPFiler 2004 header bar at the top of the display monitor's screen. Three functions are accessible to the user to either print information displayed on the computer screen or a report, change printer, the printer's page set up or close a form before it is completed.

FORM CONTROL

X Printing Tool

At any point in time, the *user* can print the information shown in any active menu, form, subform, tabpage displayed by MMPFiler via the **Print**... function. This function may be useful to make notes on information required in a particular form. This function also allows for printing individual sections of a manure management plan, as explained in Chapter 8.



FORM CONTROL

🛠 Setting Up the Printer

The "Page SetUp" function has for purpose to set page format features of the printer that is used to create hard copies of manure management plans, should this be necessary. Refer to Chapter 8 for ample details on how to print MMPFiler reports.

FORM CONTROL

🛠 Exiting a Report

When the *user* opens a form or subform inadvertently, MMPFiler's form control will neither allow returning to a previous form nor proceeding to a next form or menu unless all the mandatory information is entered. The "Close Report" is a function that allows for closing forms at any point in time. In other words, "Close Report" overrides the MMPFiler form control to let the *user* "exit" without entering any data in the form.

Finally, a feature of MS ACCESS<sup>TM</sup> that MMPFiler is relying on is the displaying of a brief message providing additional clues on the nature of the information required in data entry boxes and the function of buttons. This message is visible on the lower left corner area of the MMPFiler main window, just below the active form. Simply bring the cursor or mouse pointer on a data entry box or a button, to view the message.

FORM CONTROL

Clues on Data Entry

For most livestock operations, site identification and management personnel, livestock inventories, and fields usually selected for manure application are data that do not frequently change.

MMPFiler allows entering these in the Livestock operation main folder via a master form.

#### Livestock Operation Data

his software has for purpose to help livestock operators to prepare, organize and produce all the information required to prepare manure management plans. When all MMPFiler forms are filled in, a *user* can rest assured that all

the information entered and required by Manitoba Conservation for registering a manure management plan appears in the right formats and locations. *Users* and livestock operators are encouraged to maintain a file "paper" copy of all the reports generated by MMPFiler and to complete their files with any other information that they may wish to keep in the same file cabinet folders.



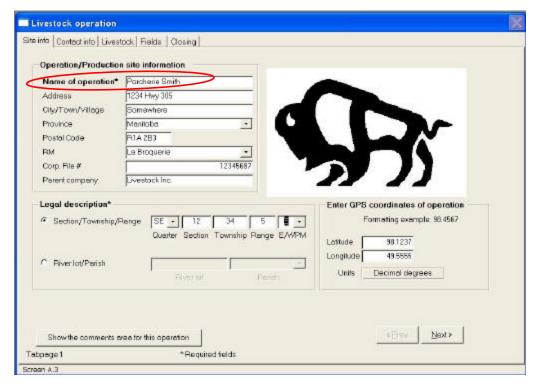
#### **Operation Data**

The *operation* data is amongst the most critical information of manure management plan. Beyond specifying the exact site location, it allows to list all the pertinent contact persons and, to a limited extent, their roles and responsibilities in the management of the livestock *operation*. The information that is entered via the <u>Livestock operation</u> form is part of the livestock *operation* folder and is transcribed verbatim to the *operation's* manure management plans.

The "Site info" tabpage is the first tabpage of the <u>Livestock operation</u> form. The user must ensure that the information entered is accurate for exact cross-referencing with prior manure management plans registered with Manitoba Conservation. The manure management plan "registrar" with the Livestock Environmental Program of Manitoba Conservation classifies manure management plans according to the name of the operation. Mistakes in the name of the operation would result in a different or new entry, thereby cutting the relationship between this manure management plan and any previous manure management plans.

OPERATION DATA

Site Information



The information required in the "Site info" tabpage is quite conventional. When examples for the information format (e.g. GPS coordinates) are not shown, information format "filters" will guide the data entry, as is the case for the postal code. To avoid typographic mistakes, common information such as rural municipality and parish names can be picked from drop down lists as opposed to having to spell them out entirely. The list searches for the closest match in the common list of rural municipalities of Manitoba. Note that in the "Operation/production site information" box in the upper left corner of the tabpage, parish names can be selected in the "RM" dropdown list.

While most *users* will be very familiar with entering legal site location description in the section-township-range format, river lot designation is quite different. As it is more common, the section, township, range site designation is the default entry menu.

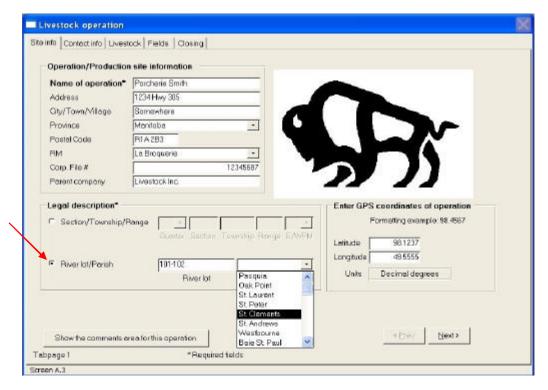
OPERATION DATA

River Lot Designation

In an effort to standardise the way the *users* enter the information for river lots, the convention shown below should be followed for designating the site location of an *operation* on river lots.

By toggling the round button in the "Legal description" information box (lower left corner of the tabpage) in the "Site info" tabpage, the information entry boxes are activated. If an *operation's* livestock production <u>facilities</u> are all located onto a single river lot, then simply indicate the river lot number. Where the livestock production <u>facilities</u> are located on more than one river lot, indicate the full river lot number with the lowest numeral first, followed by a hyphen, and then indicate the end river lot number. In the example below, the livestock housing structure and manure storage facilities are located on river lots 101 and 102. If, in another situation, the facilities are spread over parts of river lots 119, 120, and 121, for example, then the river lot number notation would be 119-121.

Finally, pick the parish name into which this river lot is located in the drop down box that is located to the right of the "River lot/Parish" data entry box.



Once you are done with entering the required information, click on the Next button to advance to the "Contact info" tabpage. If any of mandatory information boxes, highlighted with a "\*" located to the left of the information label, are left without any information, a prompt message will request that the information be entered before you can proceed to the next tabpage.

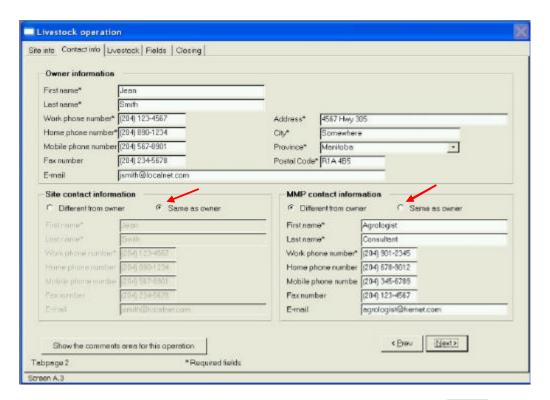
For some livestock operations, many individuals are often associated with manure management activities. In the case of family farms, the same person may handle all activities, from the preparation of the manure management plan up to the spreading activity by itself. The "Contact info" tabpage allows for identifying up to three individuals under general responsibilities in relation with livestock manure management at the *operation*.

OPERATION DATA

Contact Information

Where the owner is also the principal contact at the livestock production site itself, as would be the case when he/she is directly involved in the day to day livestock husbandry activities, the "Same as owner" button can be toggled to copy the information from the "Owner information" box to the "Site contact information" and "MMP contact information" boxes.

In situations were more than one person is assigned responsibilities such as primary contact person at the site or preparation or oversight on manure management plans, then simply fill in the "Site contact information" and "MMP contact information" boxes with the appropriate information.



Once you are done with entering the required information, click on the Next button to advance to the "Livestock" tabpage. If any of mandatory information boxes, highlighted with a "\*" located to the left of the information label, are left without any information, a prompt message will request that the information be entered before you can proceed to the next tabpage.

#### **Livestock Production Data**

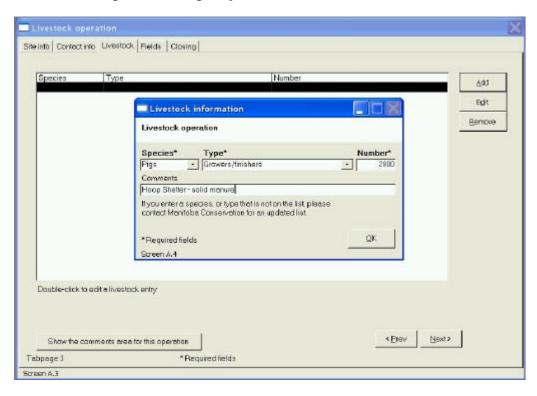
Among the basic information about the livestock *operation*, some basic data about the livestock inventories is required. This information is entered via the "Livestock" tabpage of the <u>Livestock operation</u> form.

LIVESTOCK DATA

Livestock Inventory List

The form under the "Livestock" tabpage is in fact a list of all livestock reared in a livestock *operation*. To add a first livestock description, click on the Add button. The "Livestock information" subform will appear. The livestock species can be chosen from a list, and the associated type of livestock production can also be selected.

These lists of livestock species name and production types are in accordance with the terminology used in Schedule A of the manure management plan registration form, reproduced in Appendix I, to identify most types of livestock production models in use in Manitoba. This list is adapted from the livestock inventory list presented in the *Farm Practices Guidelines* series (MAFRI, 1998a). By choosing the livestock species and production types in the lists provided by MMPFiler, the *user* can avoid misunderstandings in describing an *operation*'s livestock inventories.

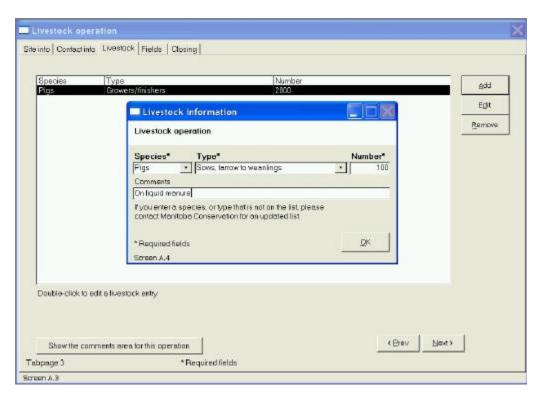


There may be production models that are not included in the lists supported by MMPFiler. In that situation, the *user* should firstly indicate a relevant comment in the "Comments" box. Secondly, the *user* should formally contact the Environmental Livestock Program at the address shown in Appendix II to inquire about the possibility of updating the livestock species and/or livestock production type lists.

There are at least two situations that justify multiple livestock entries. One situation is when an *operation* rears more than one type of livestock. An example of this situation would be a dairy operation that also rears beef cattle. In this situation, the *user* can simply add more livestock species, type and numbers as required.

LIVESTOCK DATA

Multiple Livestock
Entries



Another situation where more than a single livestock production type and species would be required is where part of the *operation* produces one type of livestock manure while the other part of the *operation* may have a different manure management or handling system and produces a very different manure type. Examples of this include a swine producer who essentially has a farrow to finish operation, but rears sows in a conventional housing with liquid manure management, while the growers/finishers pigs are reared on solid manure in biotech shelters. However, only one type of livestock manure type (e.g. liquid manure) is allowed by MMPFiler per manure management plan.

It is quite likely that the *user* will want to edit the information data after it has been entered a first time. The **Edit** button allows for returning to the "Livestock information" subform to change any information that was previously entered.

Be it as a result of a mistake or otherwise, there may be situations where the *user* may wish to delete an entry from the livestock production list in the "Livestock" tabpage. This can be done via selecting the entry by clicking on it, and then clicking on

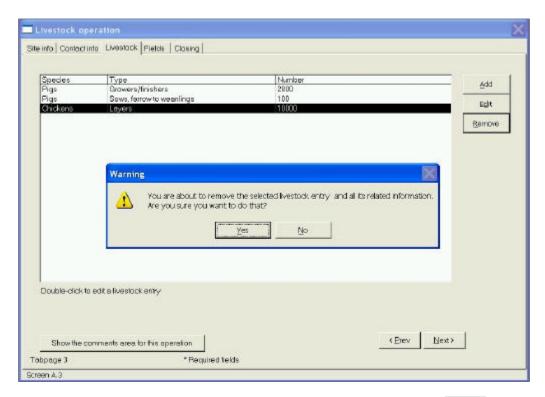
Editing Livestock Data

LIVESTOCK DATA

Deleting Livestock Data

the Remove button. A brief Warning message will appear asking the *user* to confirm the intention of deleting the livestock data from the list.

When an entry from the livestock production list is deleted, all associated information, such as past manure management plans, will also be deleted. This action should be carefully thought of before proceeding with it.



Once you are done with entering the required information, click on the Next button to advance to the "Fields" tabpage. If any of mandatory information boxes, highlighted with a "\*" located to the left of the information label, are left without any information, a prompt message will request that the information be entered before you can proceed to the next tabpage.

#### **Basic Field Information**

While the *user* will learn in the next chapters that field information can be added through other forms in MMPFiler, it may be more convenient to add all the basic field information at once via the "Fields" tabpage of the <u>Livestock operation</u> form.

FIELD INFORMATION

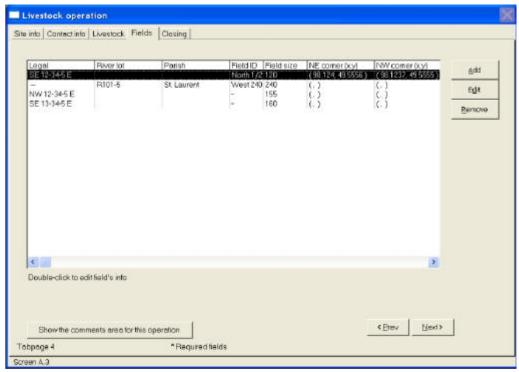
Purpose of Field Data

Basic field data covers the "permanent" information, such as soil types and series names, and other information that does not change frequently, such as land ownership. The "Fields" tabpage is a repertoire of the fields that an *operation* manages for the purpose of applying nutrients from livestock manure. Once the fields are entered into

the "Fields" sub-folder or tabpage, the *user* will be able to select them for any future manure management plan prepared with MMPFiler for that *operation*.

To add a new field into the "Fields" tabpage list, click on the Add button. The "Fields" subform will appear.



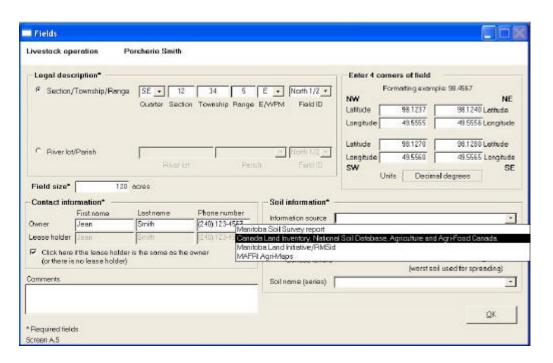


The legal description data for fields can be entered, depending on the case, in section-township-range or river lot format. For examples of how to indicate the river lot number where multiple adjacent river lots are farmed as a single field, please refer to the item "River lot designation" of the section "Operation Data" of this Chapter.

In addition to the legal description for quarter sections or river lots, each field can be identified with a "Field ID", thereby allowing for more than one field in a quarter section or a series of river lots lumped together. This will help cross-references manure management plan information with the landowner's field designation system.

While not mandatory, many landowners have GPS coordinates for their fields. When available, it is a good practice to include this data with your field information. The farmed area must be indicated, exclusive of bushes, areas not in production and setbacks from watercourses. The landowner's name and phone number, as well as that of any leaseholder, when applicable, are required. Where there is no leaseholder, a check box can be clicked to copy over the landowner information to the leaseholder's data boxes.





FIELD INFORMATION

Soil Information

Since June 2004 specific soil information is required for each field. This information can be obtained from at least four official sources, three of which are soil survey reports. The fourth source is the Manitoba Agriculture, Food and Rural Initiatives Agri-Maps on-line soil information website (<a href="http://www.gov.mb.ca/agriculture">http://www.gov.mb.ca/agriculture</a>). Alternatively, the *user* can consult with their district agricultural representative with Manitoba Agriculture, Food and Rural Initiatives for information in this regard. The information requested includes the soil texture, referred to in the soil survey reports as the "soil surface texture", soil series name, and soil agricultural capability class.

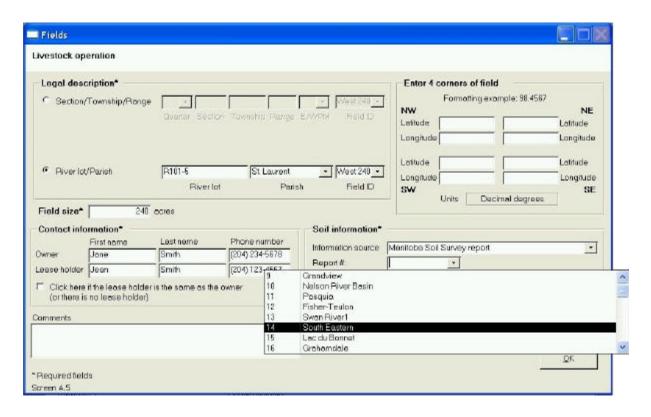
When using the Manitoba Soil Survey Reports as the source of information, the *user* must cite the report number from which the information is obtained for. An additional information box appears when that soil information source is selected.

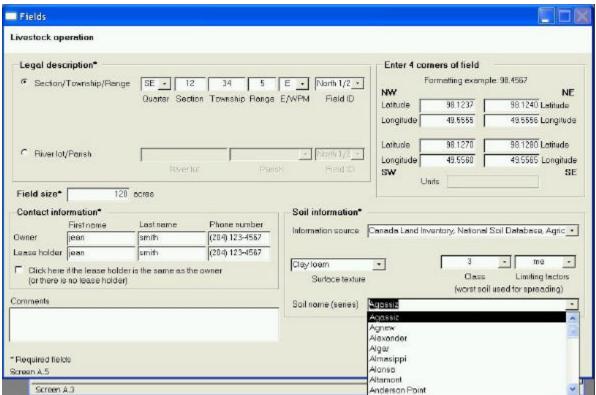
FIELD INFORMATION

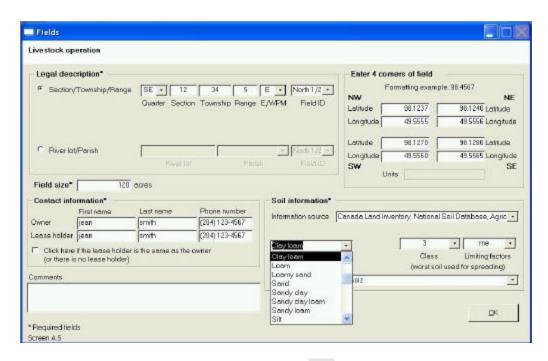
\*\* Entering Soil Class

Where a field features more than one soil class, the class for the least productive soil class that will receive livestock manure should be entered (*d.* Appendix I, *The Manure Management Plan Registration Form*). In the event that the livestock producer would want to exclude a small area of low crop productivity (soil class) from the rest of the field, only the soil class for the least productive soil remaining should be indicated. In that event, the *user* should make clear notes to that effect in the "Comments" box, for reference at a later date.

In situations where a field is comprised of sizeable area of productive soils, and a clearly defined second area of lower productivity, *users* can elect to divide the field into two distinct "fields" when time of planning and applying livestock manure comes. This would allow for using an application rate as high as necessary on the best land, while using lower rates on the less productive parts of the original field.







Once the mandatory information is entered, the OK button takes the *user* back to the "Field" tabpage. Additional fields can then be entered by clicking the Add button.

FIELD INFORMATION

Deleting a Field

FIELD INFORMATION

Finished with Field Information

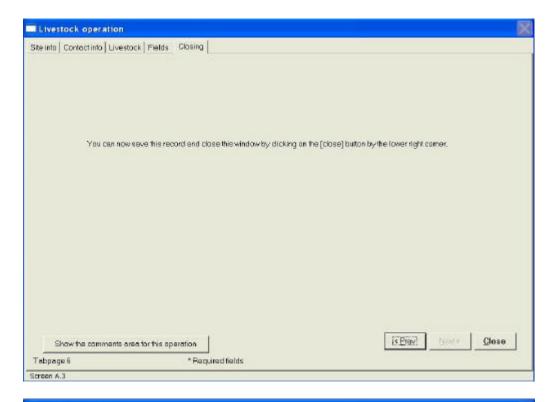
COMMENTS

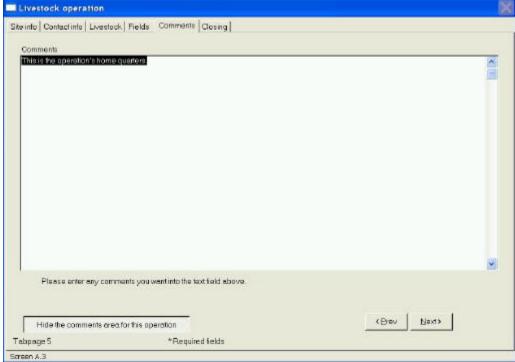
Enter "Public" Comments

When a field needs to be deleted from the list in the "Fields" tabpage of the <u>Livestock operation</u> form, the <u>Remove</u> button can be used. However, the *user* should ensure that this field is not associated with any past manure management plan, as any livestock manure management data associated with that field will also be lost.

Once you are done with entering Field information, clicking on the Next button will take you back to the <u>Livestock Operation</u> tabpage, now at the "Closing" tabpage. Clicking on the <u>Close</u> button allows for saving all the new information entered for the new operation. The <u>Close</u> button launches the <u>Livestock operation portal</u> which allows to develop manure management plans and perform associated activities. The features of the <u>Livestock operation portal</u> are discussed in details in the following Chapters.

There may be comments that would help both the *user*, the livestock operator and even Manitoba Conservation's staff understand certain particularities of the *operation*, such as a livestock production model that differs from the choices provided in the manure management plan form Schedule A (*cf.* Appendix I, *The Manure Management Plan Registration Form*), for example. These comments can be attached to the *operation* folder by clicking on the Show the comments for this operation button.





However, the user should be aware that these comments will be exported with the "Export" feature of MMPFiler, and can be viewed by Manitoba Conservation's Livestock Environmental Program.

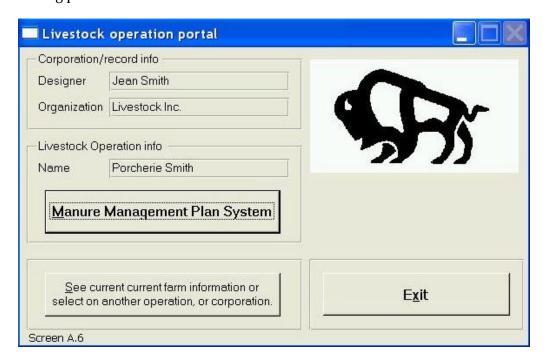
# Chapter

The <u>Livestock Operation Portal</u> is the heart of MMPFiler. After first launching, the <u>Livestock Operation Portal</u> becomes the "start up" form from which the user can navigate through all the forms and functions of MMPFiler.

## Livestock Operation Portal

fter initial launching of MMPFiler, the <u>Livestock Operation Portal</u> becomes the "start up" screen or form of the software. It has been customized to the manure management plan designer name and corporation that he/she is associated with or develops manure management plans for.

The <u>Livestock Operation Portal</u> allows the *user* to navigate through all functions of MMPFiler. From this start up point, new management plans can be prepared or existing plans can be amended.



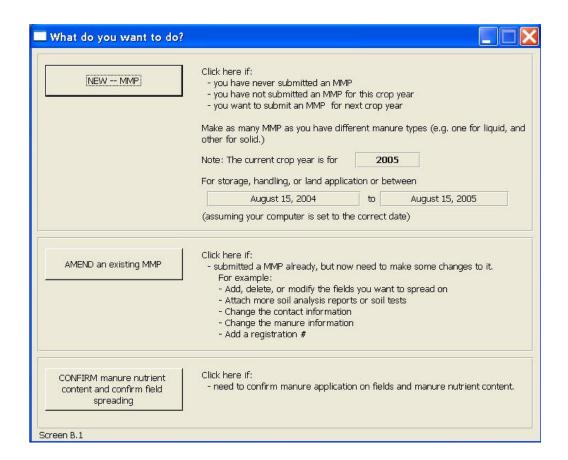
#### Manure Management Activity Menu

The Manure Management Plan System button launches the manure management plan activity menu which offers three options. The *user* can either start to work on a new manure management plan, amend an existing manure management plan (*e.g.* to add a field), or produce a confirmation report for manure nutrient content and land application of manure for a registered manure management plan.

MMP SYSTEM

Manure Management
Planning Activities

The NEW – MMP activity is discussed in details in Chapter 7. An explanation of how to prepare an amendment to a manure management plan is presented in Chapter 9. Chapter 10 deals with the specifics of producing a report with the function CONFIRM manure nutrient content and confirm field spreading



#### Navigation Between Corporations and Operations

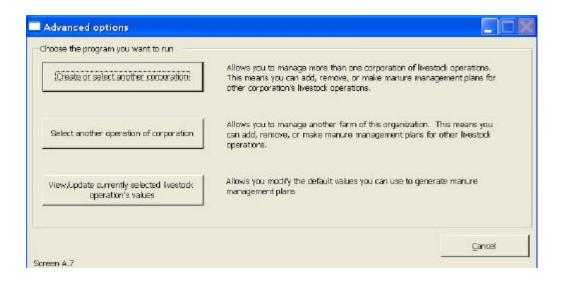
The *corporation* and *operation* folders can be accessed via the <u>Livestock operation portal</u>. Among other actions, new *corporations* can be added to the database and new *operations* 

may be entered within any existing *corporation*. Data related to the existing *corporations* and *operations* can also be easily updated.

ADD/UPDATE CORPORATION

Navigation through the Corporation Folder

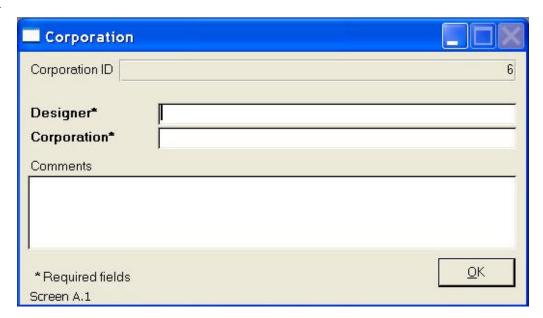
See current farm information or select another operation, or corporation of a that button takes the *user* to the <u>Advanced options</u> menu for a range of functions related to the addition or updating of *corporation* and *operation* data.



#### Manage Corporation Information

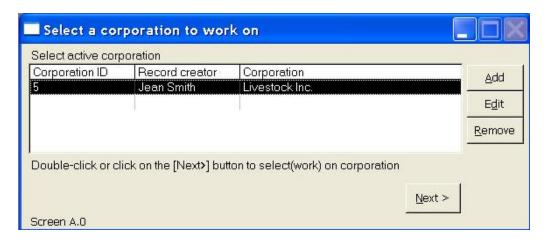
ADD/UPDATE CORPORATION
Add/Update/Delete a
Corporation

The Create or select another corporation function takes the *user* to a subform that provides the option of either creating a new corporation, editing information about the corporation or simply removing a corporation that may have been entered by mistake.



Clicking on the Add button take to the *user* to the <u>Corporation</u> form, where the *user* can enter his/her name and the name of the new *corporation*.

Similarly, selecting a *corporation* in the list and clicking on the **Edit** button takes the user to the same <u>Corporation</u> form, this time showing the name of the designer and the *corporation* as well as any comments that were entered to describe a feature of the *corporation*.

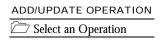


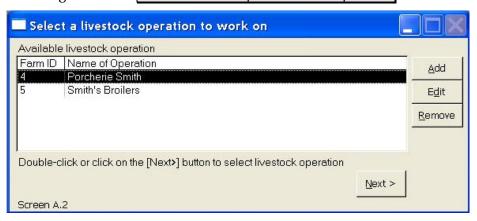
The Remove button allows the *user* to delete the selected *corporation* in the list. Again, this action will also delete all the data that is related to this corporation, inclusive of related livestock *operation* data and manure management plans.

The Next button takes the *user* to the <u>Select a livestock operation to work on</u> form to select one *operation*.

#### Managing Operation Information

The <u>Select a livestock operation to work on</u> form can be opened either as a result of choosing an alternative corporation to work on, as described above in this Chapter, or from clicking on the <u>Select another operation</u> button of the





options menu also launches the <u>Livestock</u>

<u>Advanced options</u> menu. The function of this form is to allow for adding, updating or deleting livestock *operations* data.

To add a new *operation*, all it takes is clicking on the Add button. This action launches a blank <u>Livestock operation</u> form. For information about how to fill in the <u>Livestock information</u> form, please refer to Chapter 5.

Any information describing an *operation* can be updated by clicking on the Edit button after selecting the *operation* that requires updating. This action also launches the Livestock operation form, but this time it reveals the current information found in the livestock *operation* folder. Alternatively, the "View/Update" button of the Advanced operation values

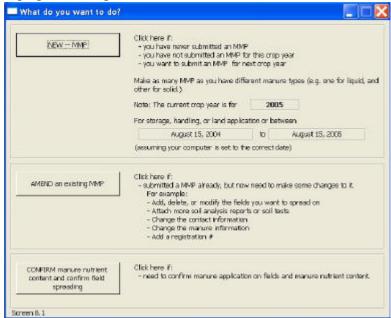
<u>operation</u> form, but with the information pertaining to the current livestock *operation*. Details about the information contained under each tabpage of the <u>Livestock operation</u> form are discussed in Chapter 5.

Finally, the user can delete any *operation* for which information was mistakenly entered, or that needs to be removed from the database by clicking on the Remove button. This action will effectively delete all of the data pertaining to livestock information, fields and manure management planning for that *operation*.

Preparing new manure management plans is the final purpose for using MMPFiler. Once the basic information is entered about a livestock operation, the user can now concentrate on livestock manure management without worrying about whether or not the operation's or corporation's basic information will "print" properly.

# Preparing a New Manure Management Plan

t is not by any coincidence but rather by design that the Manure Management Plan System button of the Livestock Operation Portal is normally highlighted. This is the function of MMPFiler that users will most often work with. As indicated in Chapter 6, clicking on the Manure Management Plan System button launches the What do you want to do form. By clicking the NEW – MMP button of this form, the user can now begin preparing a new manure management plan. This Chapter will explain in detail the steps required to prepare a new plan.



### Preparing a MMP - Review of the operation's data

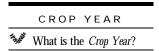
Before getting down to the heart of the dispatching of livestock manure to a series of fields, MMPFiler prompts the *user* with the first task of specifying the *crop year*, and then

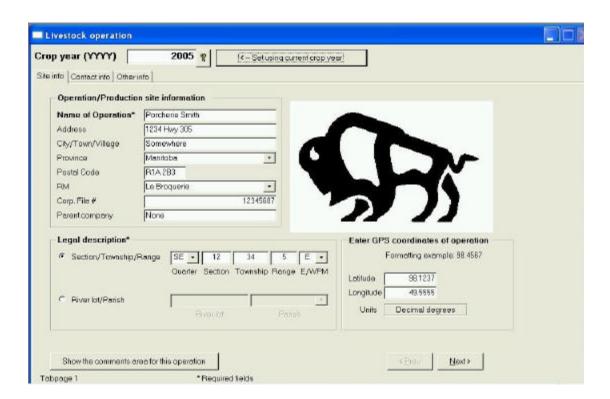
Once a first MMP is prepared, a warning message reminds user to update past plans with the registration number provided by Manitoba Conservation. To amend a plan, users can click on the Amend an existing MMP button, accessible from the What do you want to do? form. See Chapter 9 for details.

to review the operation information. This is because some of the information may change from year to year, such as the contact persons at the site or the consultant retained for preparing manure management plans.

The subforms that flow from clicking on the <u>NEW - MMP</u> button are the same as discussed in Chapter 6, with a few additional functions. Chapter 6 should be consulted for any basic questions in regard to these subforms.

The *crop year* differs from the current year. For the purpose of planning land application of livestock manure, and any other crop nutrient (fertilizer, compost, etc...), the *crop year* is defined by the year for which the landowner plans his fertilisation program. This is the year during which most of the nutrients applied from livestock manure will be effectively used by the crop. For example, a manure application in fall 2004 (after August 15) on a field to be seeded into barley in spring 2005 will result in the applied nutrients being used during the 2005 growing season. Therefore the *crop year* is the year 2005. The *crop year* must be entered in the "Crop year" box of the <u>Livestock operation</u> form.



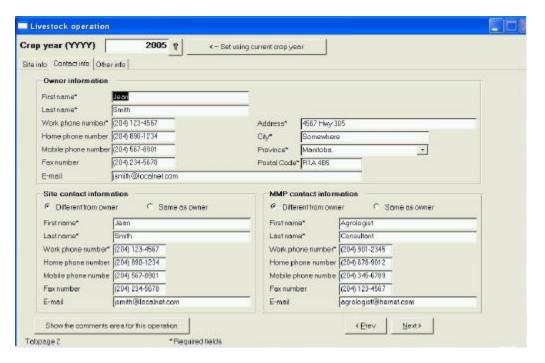


REVIEW OPERATION DATA

Site and Contacts Data

Carefully review the first tabpage "Site info" of the <u>Livestock operation</u> form, which shows the site location. Under most conditions, there should be no changes required, and the <u>Next></u> button will open the second tabpage. Should there be permanent changes to make, such modifications are best accomplished through the <u>Advanced options</u> form, as explained in the section "Navigation between corporations and operations" of Chapter 6.

The second tabpage "Contact info" of the <u>Livestock operation</u> form that is activated pertains to the site and manure management planning contact information. This type of information may be less permanent by definition, and can be updated from plan to plan. If the information entered initially as part of the livestock *operation* folder is correct, no changes are required and click on the Next> button.



REVIEW OPERATION DATA

Type Yearly Details

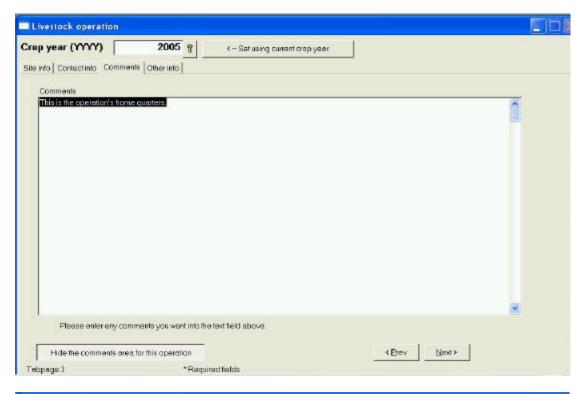
The third tabpage "Other info" allows indicating whether or not the filing of the manure management plan is the result of a Manitoba Conservation director's order. Manitoba Conservation only registers manure management plan from *operations* with more than the regulated threshold of 300 animal units (per livestock species) or for *operations* that are specifically the subject to a director's order in that regard.

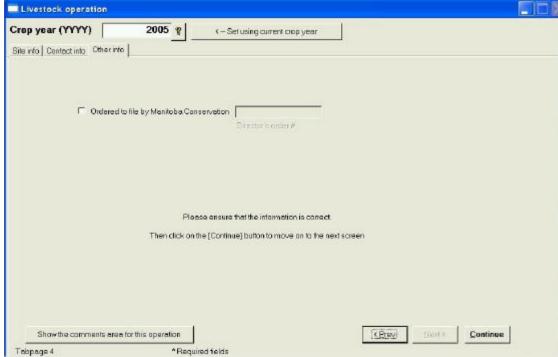
REVIEW OPERATION DATA

Comments

A final step remains the review of any comments that is part of the *operation*'s folder. If the *user* intends to e-file the manure management plan, he/she should ensure that these comments are appropriate for review by Manitoba Conservation staff.

Once the comments are reviewed and updated as required, clicking on the Next> button will close the comments area and bring back the third tabpage "Other info".



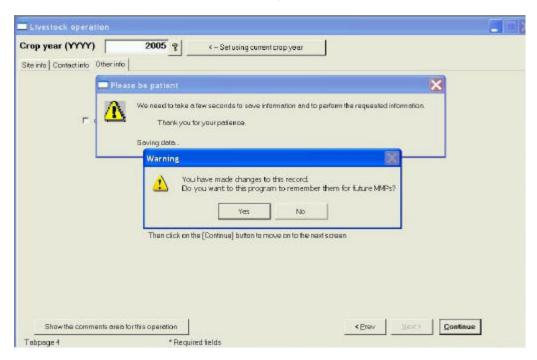


Once the *user* is finished with the review and updating of the *operation* data, clicking on the Continue button will save all the changes for the *crop year*. This is highlighted by a brief message.

REVIEW OPERATION DATA

Saving Yearly Data

If changes are made beyond simply changing the *crop year*, a second message prompts the *user* to indicate whether these changes should be made permanent for all future manure management plans. This action would be appropriate if the changes were thought to be valid for at least another *crop year* or, alternatively, another manure management plan for the same *operation* and for the same *crop year*, as would be the case for another livestock production or manure type.



#### Select the Livestock Production for the MMP

The *users* may note that on all forms and subforms associated with a manure management plan, the very top section shows information about the *operation* and current livestock manure type, or field. On some livestock *operations*, there are more than one livestock specie or type with more than 300 animal units equivalent of livestock. In this situation, the *user* must specify which livestock type is the object of the manure management plan.

To select a livestock specie and type, click on the relevant line for the current manure management plan, then click on the <u>Use selected</u> button in the *operation* list of livestock production types, from its folder. This will transfer the livestock type to the "active" livestock information list for the current manure management plan. Clicking on the <u>Use all</u> button will transfer all listed livestock species and types to the "active" list. It may take a few seconds for the list to be updated.

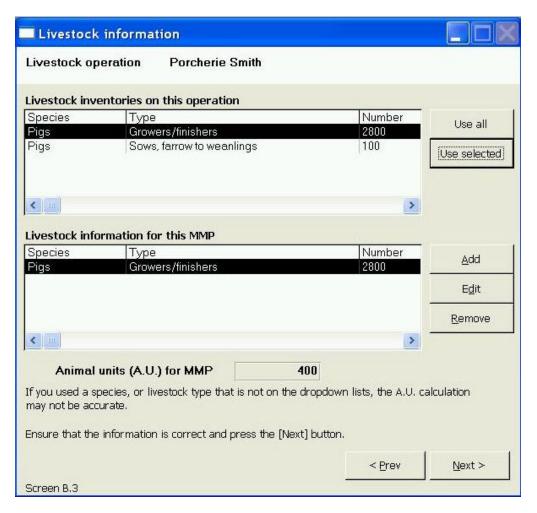
More than one livestock specie or production type can appear on the same manure management plan for as long as the selected livestock specie(s) or production type(s)

LIVESTOCK TYPE

Select One or More Livestock

result in a single manure type (e.g. all liquid manure) to manage on account of uniform properties and nutrient content, etc... Examples include situations where manure from an egg layer barn is stored into the same storage structure as liquid manure from a grower/finisher pig barn.

The cumulative animal units for all selected livestock species or types are calculated and reported in the lower portion of the subform. Clicking on the Next> button opens the livestock Manure Nutrient Information.

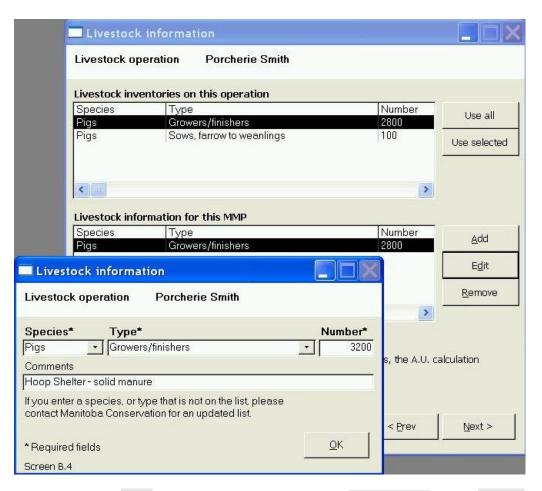


The <u>Livestock Information</u> form also allows for adding new livestock species and production types, or editing existing ones, if changes occurred during the past year since the last manure management plan.

Clicking on the Add button will open the <u>Livestock information</u> form for the *operation*. Clicking on the <u>Edit</u> button will also open <u>Livestock information</u> form, but this time with the information for the livestock species and types that are currently selected. Refer to the section "Livestock Production Data" of Chapter 5 for details about how to fill in this form.

LIVESTOCK TYPE

The Update Inventories

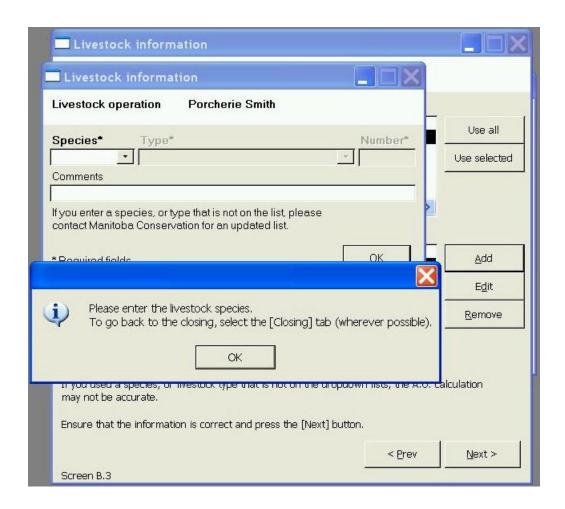


LIVESTOCK TYPE

■ Didn't Want To Do That!

If by mistake the Add button is toggled instead of the Use selected or the Use all button for transferring the livestock operation from the *operation* list, then the *user* is "confronted" with the <u>Livestock information</u> form. Clicking on that form's OK button while the information boxes are empty will generate an error message. To close this form, simply select any livestock specie and type, enter any number and then click the OK button. Once you are back to the <u>Livestock Information</u> form, you can remove this extraneous "livestock specie and type" by clicking on the Remove button. Alternatively, click on the "Close Report" function, located above the main form area. If an invalid or undesired entry is still shown in the list, simply select it and click on the Remove button to delete it.

Finally, clicking on the Next> button will open the Manure storage information form.

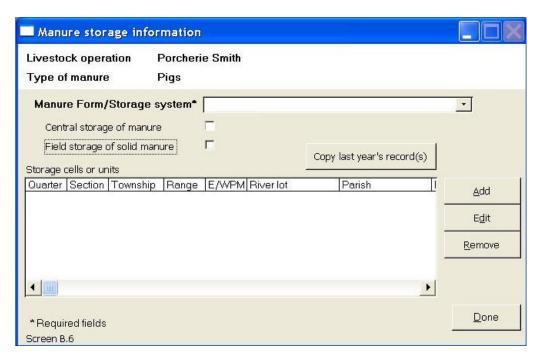


#### Manure Storage Information

The Livestock Manure and Mortalities Management Regulation MR42/98 requires that livestock producers include specific information in regards to the livestock manure storage facilities or practices. This is the purpose of the Manure storage information form. In the case of constructed manure storage facilities, MMPFiler allows to enter this information once and to carry it over from one year to another. Conversely, where solid manure is field stored at different locations from year to year, this information must be updated for every manure management plan.

The type of manure between liquid (less than 5 % solids), semi-solid (between 5 and 25% solids) and solid manure (more than 25% solids) must be selected in the "Manure Form/Storage system" information box. The *user* must then identify the appropriate storage situation at the livestock *operation* by checking one of the two check boxes for either "Central storage of manure" or "Field storage of manure".

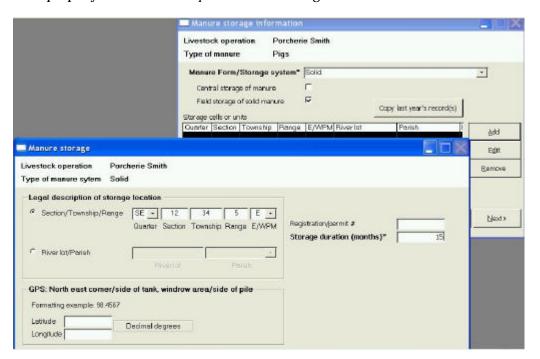




MANURE STORAGE

Location of Storage

The location of the manure storage structure or field storage sites is entered by clicking the Add button, which triggers the "Manure storage" subform. The legal location for the storage can be directly entered following the convention used for the *operation* site location (see section "Livestock Operation Data" in Chapter 5). MMPFiler provides a default legal description for the storage structure, assuming that it is on the same property as the livestock *operation*; if not, changes must be made.



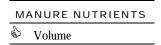
In the case of constructed manure storage structures, the registration number or the permit number of the construction must be indicated. In all cases, the anticipated livestock manure storage duration must be entered.

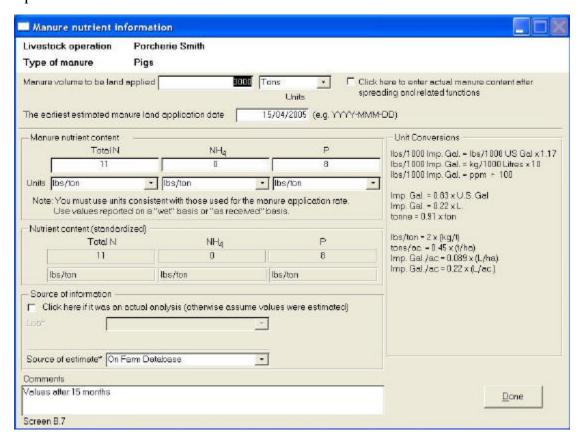
When solid manure is field stored in more than one field, the *user* must add as many storage locations as there are field storage sites. However, if the storage sites are all in the same field under a single legal description, then only one location entry will suffice. Clicking on the Next> button will now open the "Manure nutrient information" subform.

#### Manure Nutrient Information

Livestock manure is a valuable source of crop nutrients. When managed properly, crop producers can expect returns as good if not better than from commercial fertilizers.

The <u>Manure nutrient information</u> form allows for entering the livestock manure properties. The first information required is an estimate of the manure volume available for land application. Once a manure type was selected via previous form entries, the default units for the volume are the most common units for either solid or liquid form of manure.





#### MANURE NUTRIENTS

Anticipated Application
Date

MANURE NUTRIENTS

Nutrient Content

Manitoba Conservation requires that livestock operators provide the earliest date when manure application is likely to proceed. This date should be consistent with regulatory bans for winter spreading, should the *operation* be subject to these under *The Livestock Manure and Mortalities Management Regulation* MR 42/98.

A critical information is the actual estimated nutrient content of the manure. From this information, the *user* will be able to better appreciate how many fields will be required for spreading the livestock manure produced by the *operation*. This information is used by MMPFiler to help the *user* in this aspect.

There are many sources of data on manure nutrient content available to the *user*. The past records of nutrient content from the livestock *operation* itself, from samples of manures sent for laboratory analysis in previous years, is the best source of information. It is an excellent practice to take composite sample of manure during the spreading operation to verify actual nutrient levels in the manure that is being spread. In addition to providing base data for the coming years, it will help the landowner plan the needs for fertilizers to meet crop requirements.

To make a composite sample, the operator can take smaller samples (1-2 liter or shovel full) from time to time during pump-out or loading of manure spreaders, and placing them in a container. At the end of the spreading time, the sample is thoroughly mixed and a smaller sample extracted and sent for laboratory analysis. The "subsamples" should be kept cold at all times and sent in a small cooler to the laboratory.

If the *operation* does not have any data from previous years on manure nutrient content. The Farm Practices Guidelines for Beef/Dairy/Hog/Poultry Producers in Manitoba (MAFRI, 1998 and after) provide average values, as does the Soil Fertility Guide (MAFRI, 2001), or the Tri-Provincial Manure Application User Guide (MAFRI, 2004). The above choices for information source and others are available in the list "Source of estimate"; the user can enter alternative information if necessary in that data box. Where the information is from an actual manure analysis, as would be the case for a confirmation report, check the box "Click here if it was an actual analysis...".

The estimated or actual total nitrogen (Total N), ammonia or ammonium ( $NH_4$ ) and total phosphorus (P) must be entered in the appropriate boxes. Check the appropriate units for each. To suit the information from your laboratory report, different units can be selected for different nutrients. MMPFiler will automatically convert this information into a single set of units.

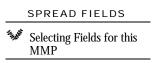
Clicking on the Next button saves the information and opens the Spread fields information form.

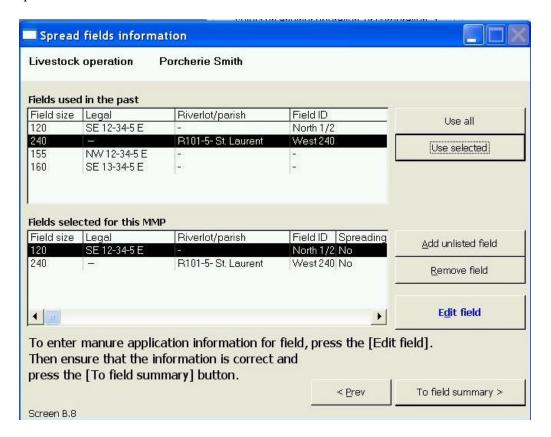
#### Select Fields for Land Application

The <u>Spread fields information</u> form shows an inventory of the fields entered previously in the *operation* folder. The *user* can select any of these fields to add them to

the current manure management plan. Additional fields can be added to the *operation*'s list from this menu as well.

The <u>Spread fields information</u> form is similar in design and function to the "Livestock information" subform reviewed earlier in this Chapter in the "Select the livestock operation for the MMP" section. The user can transfer fields from the *operation* list one by one or all at the same time. Fields can be removed and new fields added to the *operation*'s list.

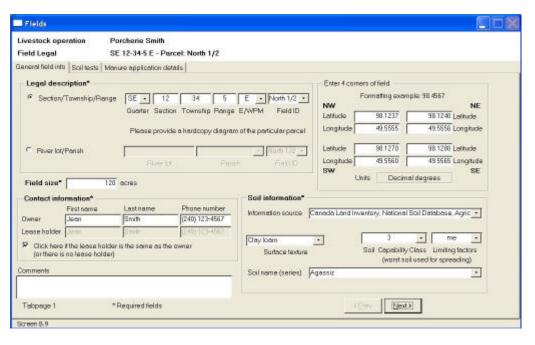




Once a field is entered in the list "Field selected for this MMP", the *user* must enter details about the manure application that is intended for that field. The **Edit field** button allows for reopening the "Fields" subform. This time, the "Fields" subform is comprised of two additional tabpages, one for entering soil test reports, and the other for specifying the details of the manure application on that field.

It is easy to note on the "Fields" subform information about the current field location and identification, at the very top of the subform, to remind the *user* "where" he/she is. The first tabpage shows the information transposed from the *operation*'s folder. Unless there was a data entry mistake, simply click on the Next> button to open the "Soil tests" tabpage.

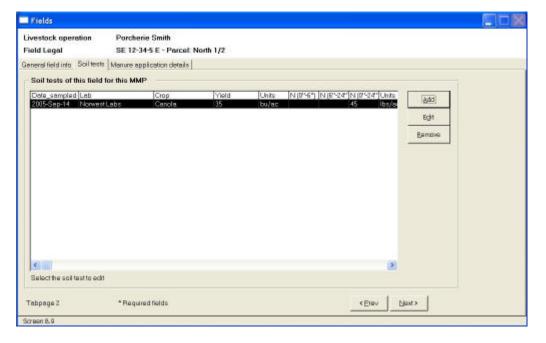




SPREAD FIELDS

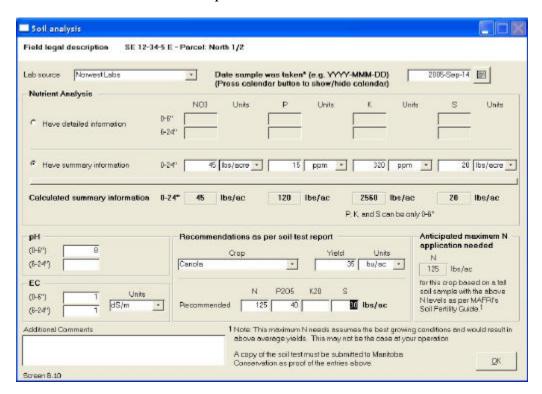
\*\* Entering Soil Test Data

The "Soil tests" tabpage shows a list of soil tests that are associated with that field, if any were entered previously. To enter information from a new soil test report from a laboratory, click on the Add button to launch the "Soil analysis" subform.



The "Soil analysis" subform allows for entering the results from soil analysis laboratory without having to convert any data, for as long as the *user* is meticulous in specifying the correct units for each data entry. MMPFiler calculates summary information for the first 60 cm (24 inch) of soil automatically, for nitrates, and converts

all units into "lbs/ac" equivalents for all nutrients. *Users* should verify the calculated values in the "Calculated summary information" boxes to ensure that values entered result in realistic values in the soil profile.



Other information required includes cropping plans and expected yield levels, as well as the recommended nutrient application suggested by the soil analysis laboratory. MMPFiler also displays the maximum nitrogen application rate suggested by Manitoba Agriculture, Food and Rural Initiatives for this crop for optimum soils and growing conditions (MAFRI, 2001), as a reference, in the "Anticipated maximum N application needed" section of the subform. Only exceptional soil, moisture and growing conditions would justify nitrogen application rates exceeding this value.

Once all information is entered, click on the <code>OK</code> button to return to the "Soil analysis" subform. Clicking on the <code>Next></code> button of the "Soil analysis" subform will take the *user* to the "Manure application details" tabpage.

Quite often, manure management plans are prepared in the summer, before harvest, or in the middle of the winter. In either case, it may not be possible to obtain soil tests in time to submit a plan for registration with Manitoba Conservation. The *user* can simply skip the "Soil analysis" subform, and proceed with the manure application details. Soil test information can be submitted at a later date, up to two weeks before the actual spreading data via a manure management plan amendment (see Chapter 9).

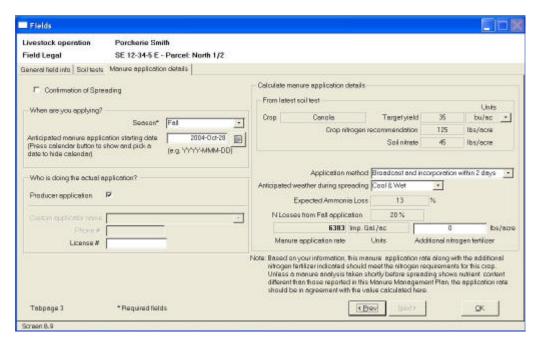


SPREAD FIELDS

Application Details

Here it is, where the *user* finally writes down the *operation*'s spreading intentions. The "Manure application details" tabpage allows for entering all the necessary details to corner the spreading plans for the selected fields. It is more important to specify approximate intentions rather than performing precise calculations of volumes and nutrients rates to be applied, as these often change to some extent when comes the time of spreading. This is because, right up to the last few days before the actual spreading, the landowner may decide to change cropping plans, or a field may no longer be available or even suitable for spreading.

The "Manure application details" subform is designed to provide the *user* with an approximate idea of how much manure could be spread on a field according to likely spreading scenarios, based on the soil analysis report's data. With this information, the *user* will be in a better position to decide how many fields would be necessary to complete the manure application.



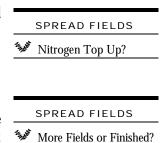
At the stage of planning manure applications, the *user* should simply indicate the season when applications are due to occur, the method of application (chosen from a list), and the most likely weather conditions. This information is used to calculate a preliminary application rate using the same approach as that of the MARC98 calculator software (MAFRI, 1998). If the soil test information was missing, no application rate calculations are done.

SPREAD FIELDS

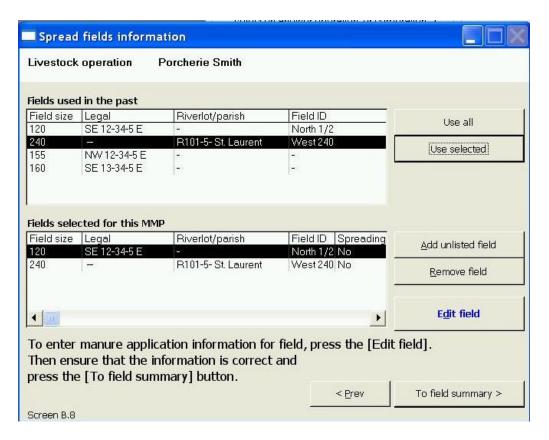
Custom Applicators

In the event that the livestock *operation* contracts out the spreading of livestock manure, the name of the custom applicator should be indicated. Starting in 2005, custom livestock manure applicators will have to obtain a license from Manitoba Agriculture, Food and Rural Initiatives; the license number will have to be included here at that time.

If the landowner has plans to add nitrogen fertilizer in addition to the amounts applied as livestock manure, this amount should be entered in the form. In that event, the calculated manure application rates are proportionally reduced, and more land will be required to apply the livestock manure available for spreading.



Clicking on the OK button returns the *user* to the <u>Spread fields information</u> form. From past experience, many *users* already have a fair idea of how many fields are necessary to handle the available manure volumes. To add another field, simply select another field form the list under the box "Fields selected for this MMP" and click on the <u>Edit field</u> button to repeat the above steps.



#### The Manure Management Plan at a Glance

By clicking on the <u>To field summary</u> button to open the <u>Field application summary</u> form, the *user* can at glance appreciate whether enough fields are listed for receiving all the volume available in the current or coming crop year.

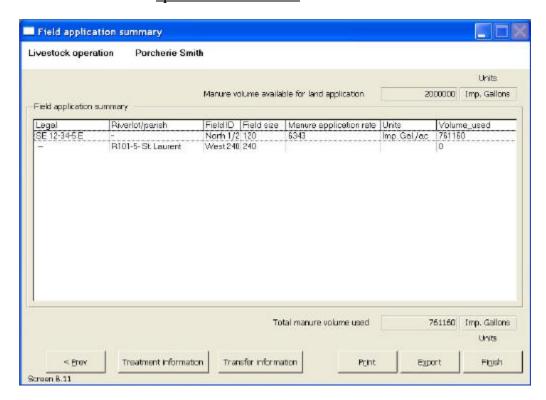
This <u>Field application summary</u> form shows the total volumes of livestock manure to apply, how much of that volume could be applied, according to the spreading information and soil test data provided. This Field application summary form, when

VOLUME SUMMARY

Application Summary

turned directly from a manure management plan in progress, shows many options for *users* that are finished with entering information.

At the bottom of the <u>Field application summary</u> form, MMPFiler reports the amounts of manure that could theoretically be applied on the listed fields for which soil test information was entered. When more fields are required, simply click on the <u><Prev</u> button to return to the Spread field information form to add other fields.



If the volume value shown in the box "Total manure volume used" is less than the "Manure volume available for land application", then more fields should be listed for receiving livestock manure for that crop year. However, this matter of fact holds only for situations where soil analysis report information was entered for each field listed in the <u>Field application summary</u> form. When soil analysis data are missing, MMPFiler does not calculate an application rate for the currently selected field.

SPREAD FIELDS

\*\* Avoiding Amendments

It is a very good practice to add more fields than actually necessary for land applying the livestock manure volumes available for spreading. By having two or three additional fields, the livestock *operation* will have more options for modifying land application plans should conditions be unfavourable for spreading on some of the listed fields. This may save the *user* the task of submitting a manure management plan amendment within few days of the actual spreading date.

When the *user* is all done with entering the manure application information, all that remains is to print, verify and submit the manure management plan.

SPREAD FIELDS

\*\* All Finished?

By clicking on the Print button, MMPFiler will set out to print the plan. Likewise, if the Export button is selected, MMPFiler will extract all the relevant information about the current manure management plan and create a "filename.mmp" file in a format acceptable to the Livestock Environmental Program of Manitoba Conservation. Turn to Chapter 8 for information relative to printing and e-filing of manure management plans.

Alternatively to or concurrently with land application of livestock manure, some *operations* may manage livestock manure by providing it to third parties or treating livestock manure. Information about these options can be entered via the Transfer information and the Treatment information functions. These functions of MMPFiler are presented in Chapter 11 and 12, respectively.

In the event that the *user* must interrupt working on a manure management plan before all the livestock manure "is spoken for" by listing sufficient fields for land application, a message will ask the *user* to confirm his/her intentions to finish working on the plan. The *user* will be able to resume data entry for the manure management plan by amending the plan later, via the <u>MMP amendment portal</u>, as described in Chapter 9.

SPREAD FIELDS

Meed a Recess?



Once all is said and done, it is time to review the information, file a copy in your cabinet folders and submit your work to Manitoba Conservation for registration.

# Printing and Submitting a Manure Management Plan

y now, the Manure Management Plan is completed! Before submitting your plan or filing it into a file cabinet, it is a good practice to review the printed version, to ensure that all the information entered is devoid of typographical mistakes and any other errors. Reviewing the printed copy will also allow for understanding the relationship between the structure of the MMPFiler database and the *Manure Management Plan Registration Form* of Manitoba Conservation. This step will further help in organizing your information for subsequent manure management plans.

After a thorough review, the plan will be ready for e-filing. This Chapter explains how to print your manure management plan and, if the *user* has Internet access, and how to electronically submit a manure management plan to Manitoba Conservation's Livestock Environmental Program.

#### Printing a Manure Management Plan

The printing function of MMPFiler can be accessed from two different menus, the <u>Field application summary</u> form and the <u>MMP amendment portal</u>. In either case, MMPFiler prints the active manure management plan and prepares reports for printing. Clicking on the <u>Print</u> button will launch the printing of the entire manure management plan on the computer's default printer.

PRINTING A MMP

Printer Default Parameters

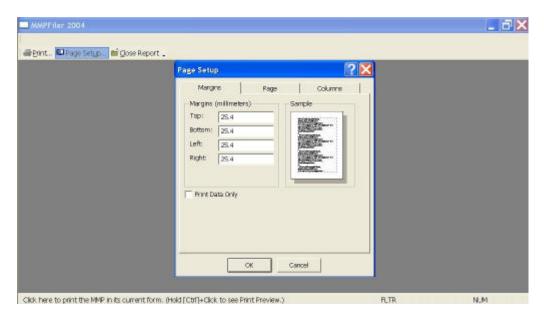
As for other software, MMPFiler will automatically choose the default printer. Manure Management Plans should print without issues on the majority of printers, provided that the printer does not have a specific requirement for a bottom margin that would exceeds 13 mm (0.5 inch).

In the event that some of the pages of a manure management plan did not print properly, the *user* may have to set specific printer parameters for printing via the "Page SetUp" function (located just under the MMPFiler header). The "Page SetUp" function is comprised of three tabpages.

PRINTING A MMP

Setting the Printer

Setting different margin sizes with the "Margins" tabpage may be useful to solve situations where the bottom part of a specific page in the manure management plan prints on a separate page.



The "Page" tabpage lets the user choose an alternative printer, to the default printer. The paper size and the print layout should not be changed as manure management plans are best printed with the default settings.

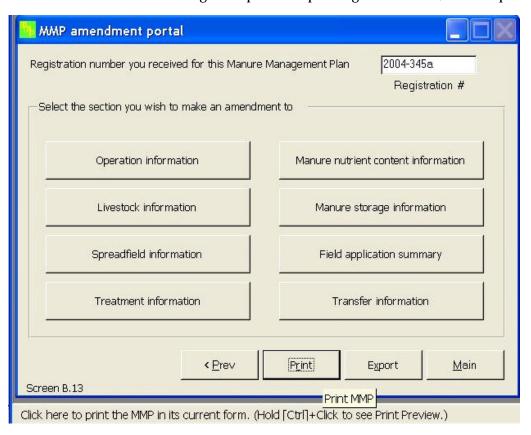


The third tabpage, "Columns", is meant for documents with multiple columns printing from databases. The default settings in the "Columns" tabpage should not be changed from the default values.

PARTIAL PRINTOUTS

Wiew and Print Sections

MMPFiler can display each section of a manure management plan on the computer screen before printing it. This function can be useful when only parts of the manure management plan need to be printed. This would be the case when preparing amendments for a manure management plan or a spreading confirmation, for example.



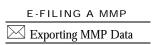
MMPFiler provides a "clue" on how to produce a "Print Preview" of a manure management plan in the information bar at the lower left corner of the software's main window. As indicated, pressing and holding down the control key (Ctrl) on the keyboard as you click on the Print button will open a series of MS ACCESS reports for viewing. The *user* can view each form and decide on whether or not it needs to be printed. To print the form, simply click on the Print... tool, located in the top left corner of the main window. When a particular section of the manure management plan is not required, simply close the "report" by clicking on the control to the report.

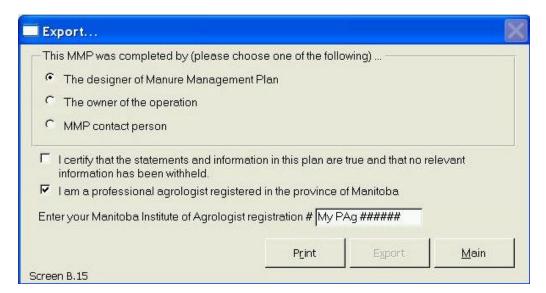
#### E-Filing of Manure Management Plans

Electronic filing of a manure management plan consists of preparing a stand-alone computer file with all of the information required by the Livestock Environmental Program of Manitoba Conservation for electronic capture of the plan's data. This is not the same as sending an electronic text document that reproduces the manure management plan registration form. MMPFiler prepares a file in a format that allows Manitoba Conservation staff to directly enter the manure management plan information into their database, virtually eliminating most possible data entry errors.

Electronic or e-filing of manure management plan has for objectives to accelerate the processing of applications for manure management plan registration. Manure management plan information can be easily e-mailed to the Livestock Environmental Program office for prompt processing.

The "export" function of MMPFiler can be accessed either via the <u>Field application summary</u> form or the <u>MMP amendment portal</u> (see Chapter 9), where the <u>Export</u> button is located. By clicking on the <u>Export</u> button, the <u>Export</u> form is opened. This <u>Export</u> form is in fact the equivalent of section F - "Certification of Manure Management Plan" of the *Manure Management Plan Registration Form* of Manitoba Conservation (see Appendix I). The *user* must fill in this form before the second <u>Export</u> button, located on this form, is enabled to launch the creation of a proper e-filing file for the active manure management plan.



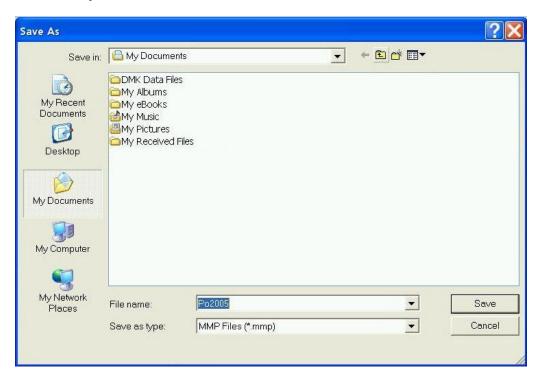


Upon clicking on the **Export** button of the **Export** form, a "Save As" menu is displayed, prompting for a location where the file should be saved. MMPFiler assigns a default e-filename to the export files for manure management plans, consisting of the first two letters of the *operation*'s name and the crop year. The *user* can and should



customize the e-filename, to minimize risks of overwriting an original manure management plan file with amendments for the same *operation* and crop year.

MMPFiler attributes its own "filetype" to manure management plan files, the "mmp" filetype. This filetype should not be changed; otherwise the manure management plan file will be rejected.



## Submitting a Manure Management Plan to Manitoba Conservation



Whether the manure management plan is e-filed, or printed for mailing or transmittal by FAX as a filled *Manure Management Plan Registration Form* (see Appendix I), the information required in Section F - "Certification of Manure Management Plan" of the manure management plan must be filled in and the proper signatures provided. When submitting a printed version of the manure management plan, the livestock operator and any professional who prepared the plan on his/her behalf must provide a signature in Section F. In the case of e-filing, the information required in the <u>Export</u> form is equivalent, although Manitoba Conservation may require signature after receipt of an electronic application for manure management plan registration.

E-FILING PROCESS

Submit via E-Mail

The actual e-filing consists of forwarding the MMPFiler document (manure management plan, amendment or confirmation report) to Manitoba Conservation via

electronic mail (E-Mail). The *MyFilename.mmp* file should be sent as an attached file to the following e-mail address:

#### mmpregistration@gov.mb.ca

The MMPFiler filename should be copied in the subject section of the electronic mail document. The correspondence should clearly state the name of the person who certified the content of the MMPFiler document.

If a manure management plan is e-filed, the *user* and the livestock operator are both responsible for keeping the original copy of the soil test reports. Electronic versions of soil test reports may be forwarded by e-mail as attached documents; only "soiltestfilename.PDF" or "soiltestfilename.ppg" documents reproducing the reports issued by soil test laboratories will be accepted. Manitoba Conservation may require from either the *user* or the livestock operator to submit these documents separately from the e-filed registration application.

E-FILING PROCESS

Soil Test Reports

Shortly after receiving a manure management plan registration form, Manitoba Conservation will review the information and issue an official receipt. However, there are times in the year where the number of manure management plans to review slows down the issuance of receipts.

E-FILING PROCESS
Receipts

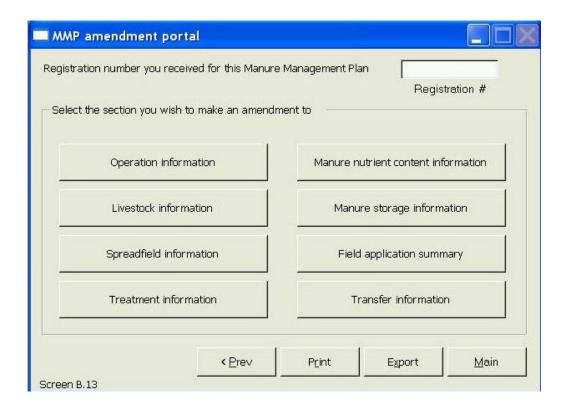
Some *users* may want a confirmation that the e-filed manure management plan successfully reached the appropriate mailbox within Manitoba Conservation. While not equivalent to the official receipt issued by Manitoba Conservation, *users* can enable the "Delivery Receipt" and "Read Receipt" options of their e-mail software when e-filing a manure management plan. The "Delivery Receipt" will return an automatic e-mail message confirming the data and time at which an e-filed plan was delivered to Manitoba Conservation's computer system. The "Read Receipt" returns a notification of the date and time at which Manitoba Conservation's staff open the e-mail message that includes the manure management plan.



For many reasons, manure managements plans are somewhat of a moving target. On that account, MMPFiler facilitates the efficient preparation of manure management plan amendments that build upon the original plan.

# Amending a Plan

here are probably a few more reasons for amending a manure management plan than choices for information to proceed with in the <a href="MMP amendment portal">MMP amendment portal</a> menu of MMPFiler. The choices offered by MMPFiler for amending a manure management plan are obviously the most common ones. The <a href="MMP amendment portal">MMP amendment portal</a> menu can be accessed by clicking on the



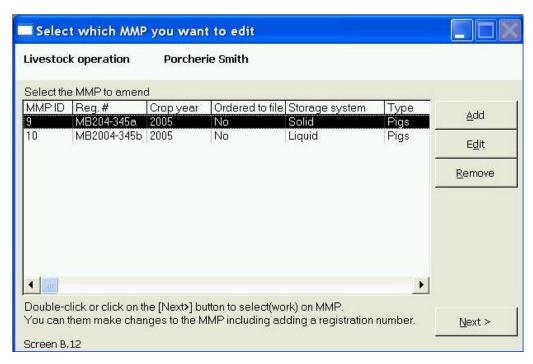
Manure Management Plan System button of the start up menu and then the Amend an existing MMP button of the subsequent menu.

*Users* may wish to resume working on a manure management plan that was set aside for some reason, to simply complete the plan. In many other situations, either the original plans for manure application did not work out, or the *user* simply needs to forward the soil test information for the fields that will receive livestock manure.

# Updating data with MMP amendment portal

Once the Amend an existing MMP button is clicked, the *user* views the <u>Select which MMP you want to edit</u> form. This form lists all manure management plans, past and current, which were prepared for the currently selected livestock operation.

Through the <u>MMP amendment portal</u>, information relative to a specific, yearly manure management plan can be modified. Changes are often recorded only for the currently selected manure management plan. Some information of *operations* that are common to all manure management plans, such as correcting mistakes in basic field information or adding fields, for example, can also be changed via the <u>MMP amendment portal</u>.



When the *user* is preparing a formal amendment for the purpose of submitting to Manitoba Conservation, the amendment must show the registration number issued by Manitoba Conservation for the original manure management plan for the crop year in question. This number must be entered in the top right corner of the



<u>MMP amendment portal</u> menu. Once entered, this number is included in the footer of the registration form's sections B to E, when printing amendments and spreading confirmation forms.

## Updating Operation's Information on a Plan

When the modifications are permanent, such as updating the owner's address, name, or any information that should be used on all manure management plans from the time of updating forward, such changes are best accomplished via the <u>Advanced options</u> menu. Details on how to use the <u>Advanced options</u> menu are presented in the section "Navigation between corporations and operations" in Chapter 6.

AMENDING A MMP

Operation Information

The Operation information option can be used to change information for a given plan in regard to "temporary" information such as a new site's contact names. The Operation information button opens a "local" version of Livestock operation form, which is extracted from the *operation*'s folder. For a discussion of the data entry features of the Livestock operation form, refer to Chapter 5, section "Operation Data". When changes to the form are completed, click on the Done button to return to the MMP amendment portal.

As a general rule, changes to the *operation* information should be limited to site contact information and comments that are valid only for the current manure management plan. Some of the *operation* information changes made via the <u>Livestock operation</u> form of the <u>MMP amendment portal</u> may not be carried to the *operation* information folder, nor any other manure management plan.

AMENDING A MMP

Operation's Livestock Inventories.

The Livestock information button allows to make limited changes to the livestock inventories of an operation, to reflect the fluctuating inventories that occur in some livestock production models. Clicking on the Livestock information button will open the Livestock information form, which allows to change the livestock numbers and even add new livestock production types. When changes to the form are completed, click on the Done button to return to the MMP amendment portal. An explanation of the function of the Livestock information form is presented in Chapter 5 at the section "Livestock Production Data".

Changes made in the <u>Livestock information</u> form are also recorded into the *operation* folder and will be accessible for subsequent manure management plans.

## Amending Livestock Manure Information

Specifically with regards to livestock manure information, two main categories of information may require updating after the production of a manure management plan, namely manure storage and manure volume, and nutrient data.

Information on these topics can easily be changed via the Manure nutrient content information and Manure storage information buttons. The Manure nutrient content information opens the Manure nutrient information form, where the livestock manure volume, nutrient content and other data can be updated. This data is applies only to the current manure management plan.

AMENDING A MMP

Manure Information

Clicking on the Manure storage information button will launch the Manure storage information form, where the *user* can update information relative to storage type, location(s), permit number, etc...

When changes to either form are completed, click on the <u>Done</u> button to return to the <u>MMP amendment portal</u>. Details on how to fill in these two forms can be found in Chapter 7, under sections "Manure Storage Information" and "Manure Nutrient Information".

## Amending Land Application Information

The most common reason for amending a manure management plan is the submission of soil analysis reports, followed by the addition of more fields for spreading of livestock manure. While these various forms are briefly discussed below, specific details on how to fill in the forms can be found in Chapter 7, under the section "Select Fields for Land Application".

Upon receipt of soil analysis reports from soil test laboratories, often times many weeks after the submission of a manure management plan, the *user* must submit the results to Manitoba Conservation to meet the registration requirements for the fields listed on the plan. This important formality can be easily accomplished by clicking on the <a href="Spreadfield information">Spreadfield information</a> button, which brings up <a href="Spread fields information">Spread fields information</a> form. Simply select the field for which a soil test report has been received and click on the <a href="Edit field">Edit field</a> button to open the "Fields" subform for this field. Clicking on the <a href="Next">Next</a> button will move you to the "Soil tests" tabpage, where the soil analysis report information can be entered. Unless changes are anticipated for the spreading of manure, click on the <a href="Next">Next</a> button to go to the "Manure application details" tabpage and click on the <a href="OK">OK</a> button to return to the Spread fields information form.

AMENDING A MMP

Soil Test Report Update

If soil analysis reports are available for other fields listed in the manure management plan, repeat the above steps. When all soil analysis reports data have been entered, click on the Done button to return to the MMP amendment portal.

In the event that changes are anticipated for any of the fields, these changes can be made at the same time as the *user* updates soil test information. To do this, simply follow the same procedure as outlined above. However, make the necessary changes once the "Manure application details" tabpage is activated. Click on the <code>OK</code> button to return to the Spread fields information form.

AMENDING A MMP

Application Changes

AMENDING A MMP

Still Have Enough

Fields?

Entering soil test analysis reports will enable MMPFiler to re-calculate or update the manure volume that can be applied on each field that has had its soil test information entered. For those fields that had no soil test information, a calculated volume will now appear in the <u>Field application summary</u> form. *Users* are encouraged to verify that enough fields are still listed to apply at least the entire volume of livestock manure available for land application, by reviewing the information in the <u>Field application summary</u> form. This form can be viewed by clicking on the <u>Field application summary</u> button of the <u>MMP amendment portal</u>.

AMENDING A MMP

Need More Fields?

In the event that a *user* wished to add fields to the manure management plan, clicking on the Spreadfield information button will bring up the Spread fields information form, where other fields can be selected or added.

## Amending Transfer or Treatment Information

The topics of transfer of livestock manure to third party and treatment processes are addressed in Chapter 11 and 12, respectively. In many ways, the tasks of updating information to the two simple forms involved for reporting such data are very similar to the procedure for entering the information a first time. The *user* can refer to the Chapters 11 and 12 for instructions on how to fill the <u>Transfer information</u> and the Treatment information forms.

# Printing, Submitting and e-filing of Amendments

The Print and Export buttons of the MMP amendment portal have the same function as those discussed for the Field Summary form described in Chapter 8 "Printing and Submitting a Manure Management Plan". Please refer to Chapter 8 for instructions relative to the printing, e-filing and submission of amendments to manure management plans.

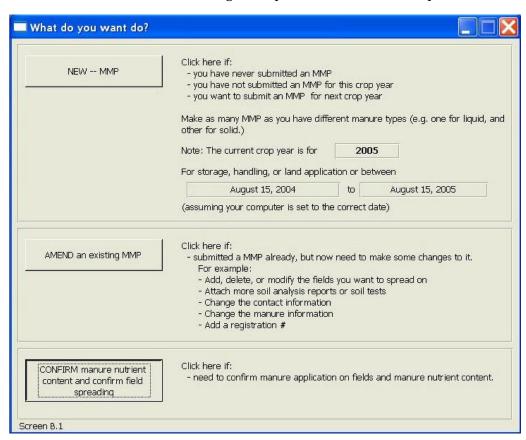


The last but not the least activity in managing livestock manure is proper accounting of where, when, what, and how much livestock manure has really been applied on the fields that were listed in the manure management plan.

# Confirmation of Land Application

A

t last, the *user* is now at a time when he/she exactly knows where and how all livestock manure has been applied, mostly exactly according to plans, but sometimes with few exceptions. More often than otherwise, not all fields listed on the manure management plan received manure, in particular when



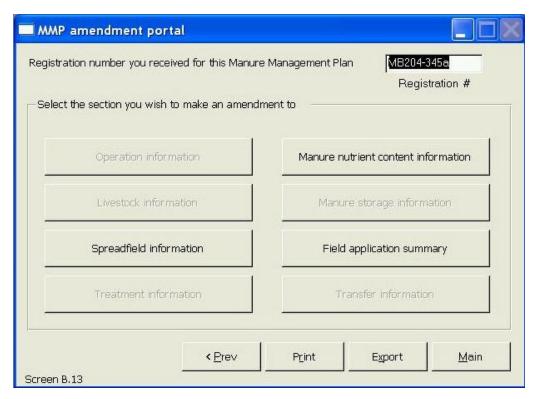
users ensure that the manure management plan is comprised of a few more fields than actually required, just in case... Other times, application mistakes happen and these should be brought up to the attention of Manitoba Conservation for advice on how to avoid environmental damage.

To prepare a land application confirmation report for Manitoba Conservation, click on the Confirm manure nutrient... spreading button. This opens the Select which MMP you want to edit form, which lists all manure management plans, past and current, which were prepared for the currently selected livestock operation. Select the

Providing timely explanations to Manitoba Conservation about any significant departures from registered manure management plans may help reduce or avoid enforcement action during subsequent audits of the plan.

manure management plan for which a confirmation is required, and click on the Next> button. This will open the MMP amendment portal.

However, this time, the <u>MMP amendment portal</u> shows only three active options allowing for changes to the manure nutrient content, spreadfield information and field application summary. If a registration number is not shown in the box located at the top right corner of the form, enter the number issued by Manitoba Conservation with the conditional receipt.

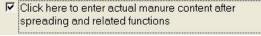


#### Confirm Manure Nutrient Content

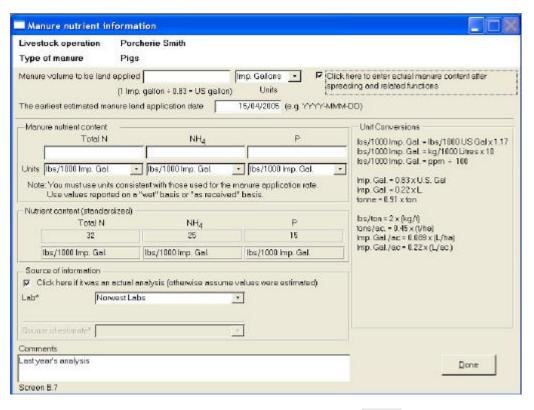
If a manure sample was taken during the land application and sent to a laboratory for nutrient content, or else if a field kit for measuring manure nutrient levels was used, the results can be entered in the <u>Manure nutrient information</u> form. Clicking on the <u>Manure nutrient content information</u> button will open the <u>Manure nutrient information</u> form. This information is optional.



To prepare a confirmation report, click on the checkbox "Click here...". This action will reset the



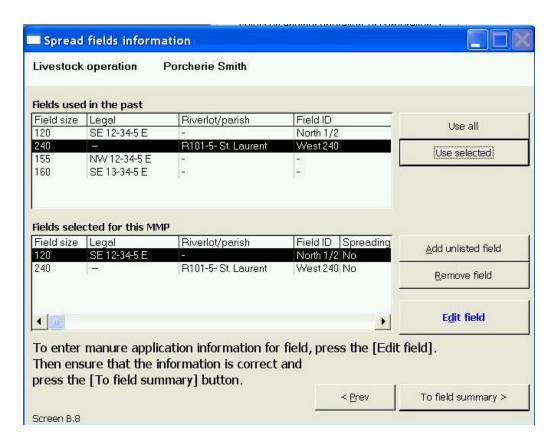
data entry boxes of this form for entering actual manure volumes that were land applied, and actual manure nutrient content of the manure. Enter the new information, along with the name of the laboratory or the type of manure measurement field kit that was used.



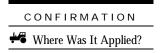
When changes to either form are completed, click on the <u>Done</u> button to return to the <u>MMP amendment portal</u>. Details on how to fill in this form can be found in Chapter 7, under the section "Manure Nutrient Information".

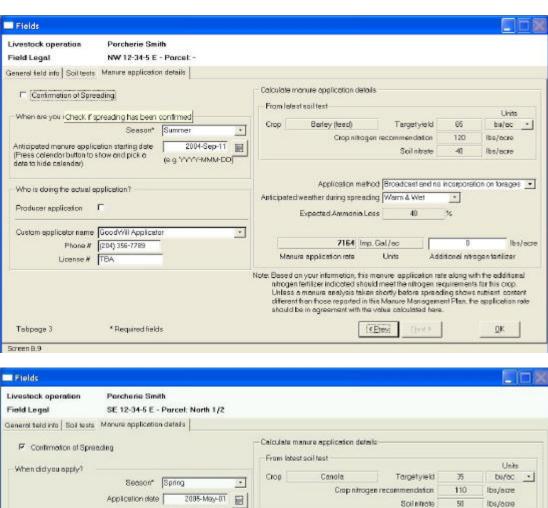
# Confirm Actual Land Application Activities

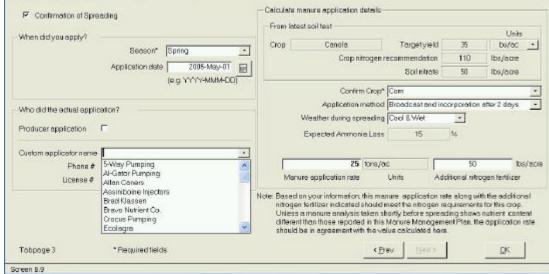
Manitoba Conservation specifically requires that livestock operators confirm the location of the fields where manure was applied and approximate application rates. Clicking on the Spreadfield information button brings up the Spread fields information form. Note that, so far, the column entitled "Spreading" for the "Fields selected for this MMP" shows "No" for all of the fields listed on the current manure management plan. This indicates that there has not been any confirmation of actual spreading on any of these fields.



To confirm that manure was applied on a field, first select the field where the manure was applied in the Spread fields information form to open the "Fields" subform. Toggle the Next button until the Manure application details is on the screen. Click on the check box Confirmation of Spreading to indicate that manure was applied to this field. Once this check box is triggered, information regarding the anticipated application date and expected application practices and even application rate are reset for updating.







CONFIRMATION

When & How?

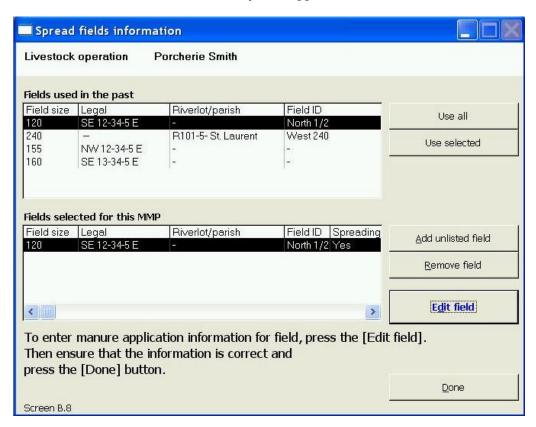
A first information to update is the actual application date. Note that the box previously labelled "Anticipated manure application starting date" has been renamed to "Application date". Enter the actual application date in this box.

Another change to this form is a new box requesting to confirm crop plans for the crop year. If the cropping plan has not changed for this field, re-enter the crop that

was stated in the soil test report; this information is conveniently shown in the information box entitled "From latest soil test", located at the top right corner of the form. As required, update the information relative to application method and general conditions during application.

As for the application rate, enter the actual application rate applied to the field, as per your field notes or report from the custom manure applicator. If the land owner or the livestock operator already plans to add fertilizer to that same field, enter the amount of nitrogen fertilizer that will be applied. Finally, update as required the information on who proceeded with the land application activities, and click the <code>OK</code> button to return to the <u>Spread fields information</u> subform.

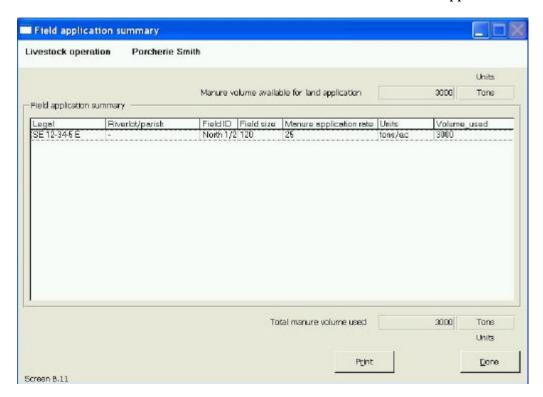
Note that, this time, the column entitled "Spreading" in the list "Fields selected for this MMP" shows "Yes" for the field for which the *user* completed a confirmation report. This indicates that manure has effectively been applied to that field.



Additional details on how to fill in this form can be found in Chapter 7, under the section "Select Fields for Land Application". When changes to either form are completed, click on the Done button to return to the MMP amendment portal.

# View the Updated Field Summary

To view the actual distribution of livestock manure among the fields which are listed in the manure management plan, click on the <u>Field application summary</u> button of the <u>MMP amendment portal</u>. This is a good way to review whether the information between various fields matches the amount of manure available for land application.



When finished, click on the **Done** button to return to the **MMP** amendment portal.

# **Printing Submitting Confirmation Reports**

From the <u>MMP amendment portal</u>, clicking on either or of the <u>Print</u> or <u>Export</u> buttons will let the *user* print the confirmation report or prepare a document for e-filing it. Refer to Chapter 8, "Printing and Submitting a Manure Management Plan" for instructions on how to print and e-file MMPFiler documents.



There are a few treatment processes, either partial or complete that are promising alternatives for managing the nutrient contained in livestock manure in some situations.

# Treatment of Livestock Manure

hile using livestock manure as a fertilizer is the most environmentally friendly way of managing livestock manure in regions where a balance exists between crop production, imports of commercial fertilizer and use of the nutrients in livestock manure, there are situations where alternative use of manure may be warranted. Some livestock operators already have embraced partial or complete livestock manure treatment technologies. In fact, treatment of livestock manure is only another approach to managing livestock manure. For this reason, *The Livestock Manure and Mortalities Management Regulation* MR42/98 requires that livestock operators who manage livestock manure via any treatment technology register a yearly manure management plan.

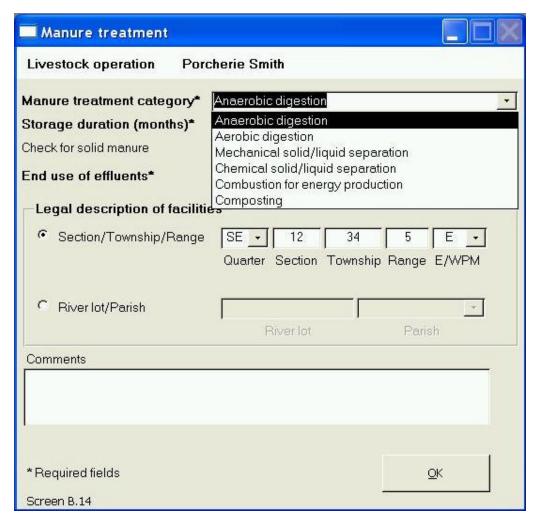
#### The Manure Treatment Form

The <u>Manure Treatment</u> form is a simple and short form where the *user* can indicate type of treatment process and the end use of treated livestock effluents. This form is the equivalent of Schedule B of the *Manure Management Plan Registration Form* (see Appendix I)

MANURE TREATMENT

Treatment Category

While very few complete treatment processes for livestock manure are in use in Manitoba, there are few general types of treatment alternatives that are used elsewhere or are in an advanced stage of development. Some of these treatment processes categories are listed in the "Manure transfer category" data entry box. If the choices do not reflect adequately the livestock manure treatment process or technology, *users* can type in an alternate treatment process description.



Many treatment technologies require or imply that livestock manure be stored for a specific duration, while others produce solid or liquid effluents that require land applications. In either case, some manure related products need to be stored at a location for some time. The storage duration for effluents must be entered in the "Storage duration" data entry box.

MANURE TREATMENT

Storage of Effluents

The location of the untreated livestock manure storage facilities must be entered through the Manure Storage Information form, as per the instructions in Chapter 7. Where effluents required long term storage facilities, the additional storage structures must be identified via the <u>Manure Storage Information</u> form.

Almost every treatment processes either separate or generate solids that must be managed. If that is the case, the check box "Check for solid manure" must be checked.

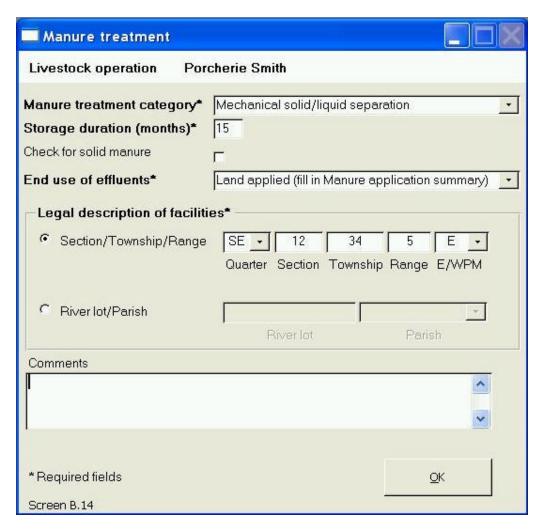
MANURE TREATMENT

MANURE TREATMENT

Use of Effluents

While manure may be treated, considerable volumes of effluent, liquid or solid, will likely remain. The data entry box "End use of effluents" offers a list of common end use of treated livestock manure effluents. If the choices do not reflect adequately the actual use of treated livestock manure effluents, *users* can type in an alternate treatment process description. Unless indicated in writing by Manitoba Conservation, any effluent (solid or liquid) resulting from treatment of livestock manure must be either land applied or transferred to a third party for other use.

Where effluents are to be land applied, information relative to the spread fields must be provided in the manure management plan, as described in Chapter 7, "Preparing a New Manure Management Plan". When part or all of the effluents are transferred to a third party for any end use, the Manure transfer form (see Chapter 12) must also be completed.



MANURE TREATMENT

Facilities Location

The site at which any livestock manure treatment facilities are located must be indicated. Users can enter this information in the Manure transfer form using the same conventions and methods as used throughout MMPFiler.

This is one of the few forms of MMPFiler that warrants adding specific comments to ensure that the type manure treatment process and end use of the resulting effluent are as clearly described as can be. *Users* are encouraged to add any details that would help in this regard.

MANURE TREATMENT

¿ Comments

# Chapter 1

There are some instances where arrangements are made between livestock producers and neighbouring crop growers or businesses for handling, processing or applying livestock manure without any planning input from the livestock operator. In that situation, the manure management planning responsibilities may be shared with a third party.

# Transfer of Livestock Manure

ome livestock producers have engaged into arrangements that essentially divest them from any livestock manure management activities. In some instances, a third party picks up livestock manure in the producer's backyard to use it as substrate for compost consumed in greenhouses or mushroom operations. In other instances, the livestock manure is land applied under the full control of the third party.

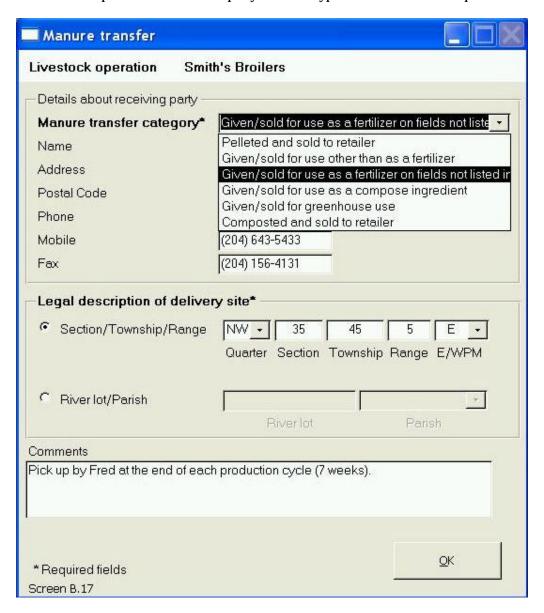
Regardless of the situations, recent changes to *The Livestock Manure and Mortalities Management Regulation* MR42/98 require that livestock operators with 300 animal units or more register a manure management plan with Manitoba Conservation. The current requirements for information pertain mainly to accurate information about the third party involved and what happens to the livestock manure. This information is necessary to ascertain an environmentally sound use of livestock manure.

## The Manure Transfer Form

The <u>Manure Transfer</u> form is a simple and short form where the *user* can indicate the end use of the livestock manure and the coordinates of the receiving third party. This form is the equivalent of Schedule C of the *Manure Management Plan Registration Form* (see Appendix I)

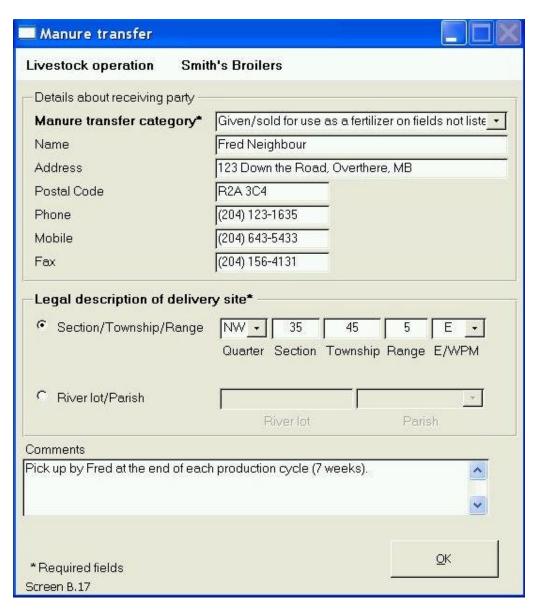
There are a few possible arrangements for alternatives to land application of livestock manure, depending on the type of manure and local opportunities. A number of choices are presented to the *user* in the list of the "Manure transfer category" data entry Type of Transfer box. If the choices listed do not reflect adequately the type of arrangement between the livestock operator and the third party, users can type in an alternate description.

TRANSFER



Most importantly, Manitoba Conservation requires exact information as to who is the third party taking possession of the livestock manure and where the manure is stored. Users can enter this information in the Manure transfer form using the same Third Party: Coordinates conventions and methods as used throughout MMPFiler.

TRANSFER



TRANSFER Comments

This is another one of the few forms of MMPFiler that warrants adding specific comments to ensure that type of manure transfer arrangement is clear, and that the end use of the manure complies with *The Livestock Manure and Mortalities Management Regulation* MR 42/98. *Users* are encouraged to add any details that would help in this regard.

# Appendix I

The official registration form for annual manure management plan required by Manitoba Conservation is reproduced below. This form is the July 2004 version of the form. The user is encouraged to verify on-line at the Livestock Environmental Program website <a href="http://www.gv.mb.ca/conservation/regoperations/livestock/index.html">http://www.gv.mb.ca/conservation/regoperations/livestock/index.html</a> for any updates that would have been made to that form after 2004. When updates are made, users can inquire with the Livestock Environmental Program for any associated updates to MMPFiler that will implement the changes into the software.

The Manure Management Plan Registration Form

# LIVESTOCK MANURE AND MORTALITIES MANAGEMENT REGULATION

**Manure Management Plan** 



All livestock operations in Manitoba with 300 animal units (A.U.) or more are required under Section 13(1) of the *Livestock Manure and Mortalities Management Regulation* under *The Environment Act*, to submit an annual manure management plan to Manitoba Conservation. The plan must be submitted by July 10 for fertilization programs beginning in the fall, and by February 10 for fertilization programs beginning in the spring.

#### **Section A – Operation Information** Name of Operation **Mailing Address** Postal Code\_ **Location of Operation** Qtr. Sec. Twp. Rge. E/WPM or River Lot/Parish Rural Municipality G.P.S. in Decimal Degrees (if available) Name of Contact **Contact Numbers** Business Residence Cellular Facsimile Owner (legal name) Corp File # if app. **Mailing Address** Postal Code\_ **Contact Numbers** Residence Business Cellular Facsimile Affiliate (legal name) NB: Confirmation of manure spread including actual application rates, analysis of manure, field maps, coordinates (if available), field access location, contact numbers of field owners/operations must be submitted after manure is spread. Additional MMP's may not be registered unless this information is received by Manitoba Conservation. Manure management plan required to comply with a Director's Order or an Environment Officer Order. ☐ Yes If yes, Order number: \_\_ FOR DEPARTMENT USE ONLY Received by: Office: Date received: No 🗌 Yes $\square$ Follow-up required Nature of follow-up\_

Please complete this form and forward to the Environmental Livestock Program, Manitoba Conservation, Box 46, 200 Saulteaux Crescent, Winnipeg MB R3J 3W3. Phone: 204-945-3789/Fax: 204-948-2420

Personal information is collected under the authority of *The Environment Act*, the *Livestock Manure and Mortalities Management Regulation*, and will be used to issue receipts, for surveys, administration and enforcement purposes. Information collected is protected by the privacy provisions of *The Freedom of Information and Protection of Privacy Act*. If you have any questions, contact the Access &

Proprietary (confidential) information will be protected in accordance with Manitoba law.

Privacy Coordinator, 1383 Whyte Avenue, Winnipeg MB R3E 1V7; 1-204-945-4170.

# **Section B - Animal Unit Inventory**

Animal Type and Subtype <sup>1</sup>	A.U. Produced by One Livestock		Number of Livestock of Each Subtype	A.U. for Each Livestock Subtype
Eg. Beef – Feedlot Cattle	.769	X	500	385
		X		
		X		
		X		
		X		
		X		
		X		

<sup>&</sup>lt;sup>1</sup>Refer to Animal Unit Worksheet –Schedule A. Retain Schedule A for your records. If additional room is required, the operator may choose to submit a copy of Schedule A. **USE ONLY CATEGORIES LISTED IN THE WORKSHEET.** 

# **Section C – Manure Storage Systems Information**<sup>1</sup>

Type of livestock manure stored		Semi-	-solid (paste like; (handled with fro	ed as liquid; 0-5% dry matter) 5-25% dry matter) ont loader; over 25% dry	
Location of central manure storage fa	cilities				
Legal description of the location(s):	G.P.S. Coordinates (Decimal Degrees) (if available)		Anticipated Storage Time (months)	Construction Permit Number(s) <sup>2</sup> or Registration Number(s) <sup>3</sup> for storage	
Location of solid manure field storage	: (comple	te only if yo	u have field sto	orage)	
Field Storage Site #1:					
Legal Location:		Anticipated Storage duration (months)			
Field Storage Site #2 :					
Legal Location:		Anticipated Storage duration (months)			
Field Storage Site #2:					
Legal Location:		Anticipated	Storage duration	(months)	

<sup>&</sup>lt;sup>1</sup> Use additional pages if necessary

<sup>&</sup>lt;sup>2</sup> A construction permit has been required by Manitoba Conservation for construction of earthen manure storage structures since 1994 and for all other types of constructed manure storage structures since 1998. You may inquire about your permit number at your Manitoba Conservation regional office (see last page).

<sup>&</sup>lt;sup>3</sup> Registration numbers will be issued by Manitoba Conservation for earthen manure storage structures built before 1994 and all other constructed storage structures built prior to 1998.

# **Section D – Manure Information for Land Application**

(One type per page; reproduce pages 4 and 5 as necessary)

Type of Livesteel	Total A II of this Type
Type of Livestock	Total A.U. of this Type
Volume of Manure to be Land Applied	
	Imp. Gallons (liquid manure)
	Tons (solid manure)
	☐ Cubic feet
Manure Analysis	<u></u>
Total <b>nitrogen</b> content in the manure	lb/1000 gal
<b>NH</b> <sub>4</sub>	on
<b>Total P</b>	on
% Dry Matter	
The nitrogen value stated above is:	
☐ Actual (Please attach manure analysis report with this form). ☐ Estimated	
Estillated	
If estimated, please indicate your source of information:	
Farm Practices Guidelines for Beef/Dairy/Hog/Poult	ry Producers in Manitoba
Average values published by analytical laboratory (sp	•
Other source (specify):	
Earliest Anticipated Manure application starting date <sup>1</sup> :	
(N	Ionth / Day / Year)

<sup>1</sup>This is the earliest date the first spread of manure will occur on this plan.

Note: If manure is to be treated, please complete and attach Schedule B – Manure Treatment If manure is to be transferred to another party, please complete and attach Schedule C – Transfer of Manure or Effluent to a Second Party.

**"transfer"** excludes situations in which a contractor is hired, or the operator volunteers to land apply the manure from this operation. In this case, Section E - Field Application Summary must be completed.

## **Section E - Field Application Summary**

Crop year for which manure will be application to the company of t	olied: If no Man	Form: SOLID or heck here:	LIQUID
Legal Description			
Field ID			
G.P.S. COORDINATES (4 corners of the field) Coordinates in Decimal Degrees (If available)			
Legal Owner's name and phone			
Field Size <sup>1</sup> (acres)			
Soil Class and Subclass <sup>2</sup>			
Proposed Crop			
0 – 24 inch depth soil nitrate (NO <sub>3</sub> -N) in lbs/acre			
Target Yield ( bus/acre, lbs/acre, tons/acre)			
Crop Nitrogen Recommendation <sup>4</sup> (lbs/acre)			
Manure Application Rate Choose: gal/acre or tons/acre			
Application Season (Spring/Fall/Summer)			
Application Start Date (day / month / year)			
Application Method <sup>5</sup>			
Additional Nitrogen Fertilizer <sup>7</sup> (lbs N/acre)			
Applicator <sup>6</sup> – Name, Phone, Licence			

Fields to be manured must be soil sampled and the analytical reports submitted to Manitoba Conservation. Sound soil sampling procedures, as outlined on Page 4 of the Detailed Instructions, are required to obtain an accurate soil nutrient assessment.

Note: Plan must be certified by operator on Page 5. If the plan is prepared for the operator, it must be certified by a Professional Agrologist on Page 5. Incorrect/incomplete information voids this Manure Management Plan.

<sup>&</sup>lt;sup>1</sup> Indicate only the available acres for manure spreading (exclusive of setbacks from surface water courses, etc.).

<sup>&</sup>lt;sup>2</sup> Must list correct Agricultural Capability Class including subclass (limiting factor(s)) as determined by **PUBLISHED MANITOBA SOIL SURVEY REPORT, or electronic data distributed by Manitoba Land Initiative website. Use the worst class manure**will be spread on.

<sup>&</sup>lt;sup>3</sup>As shown on the soil analysis report appended to this form. If soil analysis reports are not available at the time of submitting the form, they <u>must</u> be forwarded to Manitoba Conservation 14 days <u>before</u> application of manure to allow for processing.

<sup>&</sup>lt;sup>4</sup> Indicate the recommended nitrogen (N) application rate suggested by the soil fertility guide, or the soil analysis report, whichever is lower.

<sup>&</sup>lt;sup>5</sup> Choose 1 of the following and put the corresponding letter on the form: A. Broadcast and incorporate after 2 days, B. Broadcast + Incorporate after 3 days. C. Broadcast and incorporate within 2 days. D. Broadcast and no incorporation. E. Broadcast and no incorporation on forages. F. Injection. G. Irrigation and incorporation within 3 days. H. Irrigation and no incorporation. NB: Aerway or similar is considered broadcast + Incorporate for purpose of plan.

<sup>&</sup>lt;sup>6</sup>Applicator information required if applicator is not the operator.

<sup>&</sup>lt;sup>7</sup>Additional Fertilizer + Manure Application must not result in soil NO<sub>3</sub> above the regulated limit in that crop year.

# **Section F - Certification of Manure Management Plan**

Note: The Plan must be certified or it is VOID. Mark ap	opropriate box with "X".
I certify that the information contained in this plan	n is true and that no relevant information has been withheld.
Date	
	Signature of Operator
Plan Prepared by:  Operator	
Other	
If other than operator:	
I certify that the information contained in this plan	n is true and that no relevant information has been withheld.
Date	
	Signature of Professional Agrologist
	who prepared plan
Address and phone number of Professional Agrolo	ogist:
Stamp:	

# FOR ADDITIONAL INFORMATION, PLEASE CONTACT ONE OF THE FOLLOWING REGIONAL OFFICES

Red River Region	Western Region			
123 Main Street, Suite 160	1129 Queens Ave.			
Winnipeg MB R3C 1A5	Brandon MB R7A 1L9			
Telephone: (204) 945-7100	Telephone: (204) 726-6061			
Facsimile: (204) 948-2338	Facsimile: (204) 726-6567			
Red River Region	Eastern Region			
Unit 5, 284 Reimer Avenue	Air Services, Provincial Highway #502			
Box 2019	Lac du Bonnet MB R0E 1A0			
Steinbach MB R5G 1N6	Telephone: (204) 345-1447			
Telephone: (204) 346-6060	Facsimile: (204) 345-1440			
Facsimile: (204) 326-2472				
Interlake Region	Interlake Region			
$75 - 7^{th}$ Ave.	Lower Level, 446 Main St.			
Gimli MB R0C 1B9	Selkirk MB R1A 1V7			
Telephone: (204) 642-6095	Telephone: (204) 785-5208			
Facsimile: (204) 642-6108	Facsimile: (204) 785-5024			
To report environmental emergencies call 944-4888 (24 hours)				

# DETAILED INSTRUCTIONS FOR COMPLETING MANURE STORAGE AND HANDLING PLANS & SCHEDULES

Whenever a check box appears, mark the appropriate boxes with  $\boxtimes$  to indicate choice.

The plan must be signed on the certification page by the person preparing the plan, or the plan is void. Manure management plans may be completed by the operator or by a Professional Agrologist working on behalf of the operator.

Throughout the plan, G.P.S. coordinates are requested, if available. These coordinates are not essential for registration, but help to ensure the field(s) are accurately identified. It is recommended that G.P.S. coordinates be provided as an amendment if not available at the time of the initial plan submission.

If you require technical assistance, please contact your local Manitoba Agriculture, Food and Rural Initiatives District Office or consult a Professional Agrologist.

#### **Section A – Operation Information**

- **G.P.S.** Provide G.P.S. in decimal degrees if available.
- Corporate file # All registered corporations have a corporate file number. Please provide if available.
- Affiliate If the operation is affiliated with a larger corporation, list the larger corporation here.
- Manure management plan required to comply with a Director's Order or an Environment Officer
  Order If the operation was ordered to file a plan by Manitoba Conservation as a condition of the Order,
  indicate and insert Order Number.

#### **Section B - Animal Unit (A.U.) Inventory**

- Use the worksheet in Schedule A to determine your animal units.
  - Determine the category in which your livestock operation fits.
  - Calculate and indicate the A.U.'s for each type of livestock in your operation.
  - If you are unsure as to which category your livestock operation fits into, contact your Regional Agricultural Representative office or Regional Manitoba Conservation office.
  - Do not double count animals.
- In Section B, only fill in the animal units of the species that combines to a total of 300 A.U. or greater.
- At the top of Section D, fill in the total A.U.'s from that animal type in the box provided.
- Those ordered to file by director's order or Environment Officer's Order must submit Schedule A.

#### **Section D – Manure Information for Land Application**

- Ensure one page is submitted for each type of livestock in your operation with 300 or more animal units (A.U.)
- Manure analysis section:
  - Ensure manure nitrogen ("N<sub>total</sub>") content is filled out on this form.
  - If manure has been sampled, attach a copy of the analysis report.
    - Indicate the total nitrogen, total P, NH<sub>4</sub> and % solids if available.
  - If manure nitrogen content is being estimated, please use a reliable source of information and indicate this source on the plan.
  - If you require assistance arriving at this estimate, please contact your Regional Manitoba Agriculture, Food and Rural Initiatives office or Regional Manitoba Conservation office.
  - If the manure is being checked in the field by a custom applicator, please indicate this along with the method used by the applicator.

#### **Section E - Field Application Summary**

- Ensure one page is submitted for each type of livestock operation with 300 or more animal units (A.U.).
- Ensure one page is submitted for each type of manure e.g 1 page for solids, one page for liquids.
- If no manure is to be spread in this plan year, indicate this by checking no manure

#### **Crop Year**

• This is the year in which the nutrients will be taken up. Manure is to be used like a fertilizer. For example, a fall application in 2004 (after August 15) on a field used for a cereal will be used as a fertilizer in the 2005 growing season. Therefore crop year would be 2005.

#### **Legal Description**

• Indicate the legal location as ¼ Section, Township, Range or River Lot(s) and Parish, e.g. SW 30-14-3W or RL 110-115 Baie St. Paul

#### **G.P.S.** Coordinates

• If available, provide G.P.S. coordinates of spread field. Format should be decimal degrees, with Latitude above Longitude: e.g. one corner would be :

#### Field Size Column

• Indicate only the field acreage on which manure will be applied, considering recommended setbacks and excluding land that may not be suitable for application (e.g. low areas, brush, sink holes, etc.).

#### Soil Class and Subclass Column

- This refers to the soil class as described under the heading "Soil Capability Classification for Agriculture" in *The Canada Land Inventory* Report no. 2, published in 1972 by the Government of Canada, Department of the Environment.
- Both Class (1-7) and subclass (limiting factor(s)) must be included for the plan to be registered.
- This information is available from Manitoba Agriculture, Food and Rural Initiatives (MAFRI), and may also be available at <a href="http://geoapp2.gov.mb.ca/website/mafri/">http://geoapp2.gov.mb.ca/website/mafri/</a>
- For those with GIS mapping software, the information is available through the Manitoba Land Initiative at <a href="http://mli.gov.mb.ca">http://mli.gov.mb.ca</a>.

#### Soil Nitrate Nitrogen Column

- This information can be obtained from the soil analysis report.
- Ensure soil testing procedures as indicated on the attached sheet have been followed.
- Ensure you attach a copy of the soil analysis reports to this plan. Alternatively, you may submit the soil test up to 14 days prior to manure application.

#### **Target Yield Column**

- Indicate an anticipated target yield for the crop year that is reasonable on that site.
- Contact your Regional Agricultural Representative office or refer to Manitoba Crop Insurance Data should you have difficulty in estimating this target yield.

#### **Crop Nitrogen Recommendation Column**

• This information can be obtained from the MAFRI Soil Fertility Guide, available from your local MAFRI office. In the event one is provided with your soil test report, use the lower of the two values.

#### **Manure Application Rate Column**

• Report your intended application rate in gallons per acre (or tons per acre). Your Regional Agricultural Representative, or a professional agrologist can also be of assistance for this step.

#### • Application Method Column

• Choose one of the following and put the corresponding letter on the form: A. Broadcast and incorporate after 2 days, B. Broadcast + Incorporate after 3 days. C. Broadcast and incorporate within 2 days. D. Broadcast and no incorporation. E. Broadcast and no incorporation on forages. F. Injection. G. Irrigation and incorporation within 3 days. H. Irrigation and no incorporation. NB: Aerway or similar is considered broadcast + Incorporate for purpose of plan.

#### • Additional Nitrogen Fertilizer Column

- If applicable, please indicate the amount of commercial fertilizer that will be applied in addition to the manure.
- Note that fertilizer and manure application must not result in soil nitrate in excess of regulated limits.

Manure Management Plans must be submitted by July 10 for fertilization programs beginning in the fall and by February 10 for fertilization programs beginning in the spring. Plans submitted after the July or February dates will be subject to a \$100.00 administration fee.

Submit completed and signed Manure Management Plans, together with all the required analysis reports to the Environmental Livestock Program, Manitoba Conservation, Box 46, 200 Saulteaux Crescent, Winnipeg MB R3J 3W3 (Phone: 204-945-3789/Fax: 204-948-2420).

#### **Laboratories Acceptable to the Director**

As of June 28, 2004, the following Laboratories (alphabetical order) are approved for use in analyzing soil for nitrate levels:

A & L Laboratories Agvise Laboratories Cantest Enviro-Test Laboratories Norwest Labs

This list is subject to change pending a comprehensive review of methods and reporting format. Consultants or other laboratories may subcontract to these laboratories. Manure Management Planners are advised to check Manitoba Conservation's website at <a href="http://www.gov.mb.ca/conservation/regoperations/livestock/">http://www.gov.mb.ca/conservation/regoperations/livestock/</a> for current listings.

As Western Ag. Laboratories and Midwest Laboratories subcontract soil nitrate analysis to one of the above, they are considered acceptable as long as reporting requirements meet the expectations of Manitoba Conservation.

Note: Plans must be certified by operator on Page 5. If the plan is prepared for the operator, it must be certified by a Professional Agrologist on Page 5. Incorrect/incomplete information voids this Manure Management Plan.

#### TRADITIONAL COMPOSITE SOIL SAMPLING PROCEDURE

Other acceptable soil sampling procedures include the "Benchmark" soil sampling procedure, the "Grid" soil sampling procedure and the "Landscape Directed" soil sampling procedure. Additional information on these procedures can be obtained from your local Manitoba Agriculture Food and Rural Initiatives office. Note that soil samples for manure management plans must be to the 60 cm (2 ft) depth. The Soil Fertility Guide produced by Manitoba Agriculture, Food and Rural Initiatives is the only guide for fertility recommendations officially recognized by Manitoba Conservation. Recommendations from Laboratories or input dealers should only be used when application rates are lower than in this guide.

Reliable results can only be made if the samples are fully representative of the field or area from which they are taken. In addition, proper sampling and sample handling procedures must be followed.

#### **Selecting Areas to Sample**

Soil sampling is normally done on an individual field basis with a single composite sample representing the whole field. Individual fields that are not uniform should be divided into smaller sampling units with a single composite sample representing each unit. The soil in each of these sampling units should have the same colour, texture, cropping history and fertilizer or manure treatments. Look for differences in slope, erosion, crop growth and yield. Any area that is different in these features and which is large enough to have manure applied at a different rate should be sampled separately. Problem areas such as saline spots, poorly drained potholes, and eroded knolls should not be sampled unless they represent a significant portion of the field. If they do, obtain separate samples. All abnormal areas such as old manure piles, burn piles, haystacks, corrals, fence rows or farmstead sites should also be avoided as well as locations of past chemical or fertilizer spills. Samples should not be taken along headlands, within 15 metres (50 ft) of field borders or shelterbelts or within 45 metres (150 ft) of built up roads. If the field has been cultivated, take the sample from the compacted soil in the wheel track.

Sample one location per 2 hectares (5 acres) to a depth of 60 cm (2 ft). In all cases, however, a minimum of 15 sample locations per individual field or sampling unit should be taken. A single composite sample is then formed from 15 or more samples.

#### **Equipment and Supplies**

Special augers or probes designed for soil sampling must be used. These may be hand or hydraulic powered and are often available from fertilizer dealers. Independent firms may also be available to custom sample fields. Use two clean, labeled plastic pails for collecting samples. Information sheets, sample containers and shipping boxes are available from the lab conducting the analysis.

Note that all mechanical and hydraulic samplers may yield poor samples on very dry or very wet soils. In all cases avoid getting the topsoil in the subsoil samples, or subsoil in the topsoil samples. For example, in very dry soils, be careful not to let topsoil spill into the hole before taking deeper samples.

#### **Handling Samples**

Take care to keep samples clean and uncontaminated. Clean the probe, take a few samples from the new field and discard them before proceeding with actual sampling. Send samples to the laboratory immediately. If this is not possible or if a delay of more than 48 hours is anticipated, freeze or dry the samples. Follow these steps to dry samples:

- mix the soil in each container thoroughly, breaking lumps to less than 12 mm (1/2 inch);
- remove about 0.5 litre (1 pint) of soil and spread on a piece of clean paper;
- completely dry at a temperature of not more than 30°C (do not dry in an oven at a high temperature since this can change the phosphorus, potassium, and sulphur levels);
- care should be taken to avoid contamination of the samples with foreign materials such as commercial fertilizer, manure, salt, baking soda, water, dust, etc. (e.g. samples should not be dried on old fertilizer or feed bags or in areas where fertilizers have been handled);
- a fan may be used to ensure constant air flow over samples and enhance drying.

Once the sample is thoroughly dry, fill the soil sample cartons. Label each carton with the correct field number and sample depth. Complete an information sheet for each field.

## SCHEDULE A - ANIMAL UNIT WORKSHEET

	A.U. Produced by One Livestock		Number of Livestock of Each Type	A.U. for Each Livestock Type
Dairy				
Milking Cows				
(including associated livestock)	2.000	X		=
Beef				+
Beef Cows <sup>2</sup> , inc. associated livestock	1.250	X		=
Backgrounder <sup>4</sup>	0.500	X	l <u> </u>	=
Summer pasture/replacement heifers <sup>3</sup>	0.625	X		=
Feedlot cattle <sup>4</sup>	0.769	X		=
Hogs				
Sows, farrow to finish	1.250	X		=
Sows, farrow to weanling	0.313	X		=
Sows, farrow to nursery	0.250	X		=
Weanlings	0.033	X		=
Grower/finishers	0.143	X		=
Boars (artificial insemination operations)	0.200	X		=
Chickens			<u> </u>	-
Broilers	0.0050	X		<u></u>
Roasters	0.0100	X		
Layers	0.0083	X		
Pullets	0.0033	X		
Broiler Breeder Pullets	0.0033	X		
Broiler Breeder Hens	0.0100	X		
Turkeys			<u> </u>	
Broilers	0.010	X		
Heavy Toms	0.020	XX		
Heavy Hens	0.010			
Horses (PMU)				
Mares, including associated livestock	1.333	X		
Sheep			1	
Ewes, including associated livestock	0.200	XX		
Feeder lambs	0.063			ļ

or livestock specialist

<sup>&</sup>lt;sup>1</sup>One animal unit is defined as the number of livestock required to excrete 73 kg (160 lbs) of nitrogen in a 12 month period; please refer to the Farm Practices Guidelines for Beef/Dairy/Hog/Poultry Producers in Manitoba for more information.

<sup>&</sup>lt;sup>2</sup>Do not include calves or replacement heifers; e.g. for 100 cow calf pairs with 30 replacement heifers, simply enter 100.

<sup>&</sup>lt;sup>3</sup> Weaned calves; do not include cow numbers.

<sup>&</sup>lt;sup>4</sup> Cattle on finishing rations intended for slaughter.

## SCHEDULE B - MANURE TREATMENT

	COMPLETE THIS SEC	TION OUT OF	NLY IF TREATIN	NG MANURE		
Legal Location of facilities: Effluent Storage Duration (months):						
Manure Treatment Cate	egory (Choose 1)	:				
☐ Anaerobic Digestion	☐ Aerobic Digestion ☐ Mechanical Solid/Liquid ☐ Chemical Solid/Liquid				uid	
		Sepa	ration	Separation		
☐Combustion for Energy	$\Box$ Composting	$\Box$ O	ther (Specify)	:		
Production						
End use of Effluents (Er	d products of tro	eatment)		_		
	□N 1: :1 cci			☐ Reused in the livestock operat	tion	
Liquid effluent:	•	□ No liquid effluent		facilities		
1	☐ Land applied (fill in section		on E)	Other (describe)		
Solid effluent:				☐ Reused in the livestock operat	ion	
	□No solid efflue			facilities		
	$\Box$ Land applied (	fill in section	on E)	☐ Other (describe)		
Note: If effluents are transf	erred to a third part	v. complete	transfer form			
	1	J / 1				
SCHEDIUE C - TE	ANSFER OF	MANITR	E OR EFF	LUENT TO A SECOND P	'A RTV	
					AKII	
				OR EFFLUENT TO A SECOND PARTY	I	
<b>Manure Transfer Categ</b>			for use as a fertilizer on fields not listed in section E <sup>1</sup>			
				mpost Ingredient		
			for Greenhouse Use			
				r use other than as a fertilizer		
		Pelleted and	d Sold to Retailer			
□ Composted		Composted	and Sold to Retailer			
		Other				
<b>Details about Receiving</b>	•					
Details about Receiving	1 ar ty		1			
<b>.</b> ,						
Name			Name			
4 11						
Address			Address			
<del></del>						
Tel.			Tel.			
Cell		Cell				
Fax			Fax			
Legal Location of Delive	erv Site(s):		Legal Loc	cation of Delivery Site(s):		
	J ~=-=(~)·			, , , , , , , , , , , , , , , , , , ,		
	-					
			1			

<sup>&</sup>lt;sup>1</sup> Land application of manure from this operation must be accounted for. If the operation is involved in this land application either directly or indirectly, the lands should be listed in section E.

<sup>&</sup>lt;sup>2</sup>If there are more than two receiving parties, attach additional sheets containing the appropriate information.

# Appendix II

To report error messages, seek assistance, or ask for help when the information requested does not seem to match the information lists or categories provided by MMPFiler, the user can contact the Livestock Environmental Program of Manitoba Conservation at the address below.

### Manitoba Conservation Contact Information

MMP registration Livestock Environmental Program Headquarters Operations Manitoba Conservation Box 46 – 200 Saulteaux Crescent Winnipeg, MB R3J 3W3

Tel.: (204) 945-3789 Fax: (204) 948-2420

e-mail: mmpregistration@gov.mb.ca

# Appendix III

MMPFiler is largely based on the agronomic knowledge developed over the years in Maniotba in regards to managing livestock manure. During MMPFiler's development, many sources of information have been consulted...

#### References Cited

- MAFRI, 1998a. Farm Practices Guidelines for Beef/Dairy/Hogs/Poultry Producers in Manitoba. (Series published and updated from 1998 onward). Manitoba Agriculture, Food and Rural Initiatives, Publications Distribution, 8th Floor, 401 York Avenue, Winnipeg Manitoba R3C 0P8, or <a href="https://www.gov.mb.ca/agriculture/livestock">www.gov.mb.ca/agriculture/livestock</a>
- MAFRI, 1998b. MARC98 Manure Application Rate Calculator Software. Manitoba Agriculture, Food and Rural Initiatives, Publications Distribution, 8th Floor, 401 York Avenue, Winnipeg Manitoba R3C 0P8, or can be downloaded from <a href="https://www.gov.mb.ca/agriculture/livestock">www.gov.mb.ca/agriculture/livestock</a>
- MAFRI, 2001. The Soil Fertility Guide. Manitoba Agriculture, Food and Rural Initiatives, Publications Distribution, 8th Floor, 401 York Avenue, Winnipeg Manitoba R3C 0P8, or <a href="http://www.gov.mb.ca/agriculture/soilwater">http://www.gov.mb.ca/agriculture/soilwater</a>. 46 pp.
- MAFRI, 2004. Tri-Provincial Manure Application and Use Guidelines. Manitoba Agriculture, Food and Rural Initiatives, Publications Distribution, 8th Floor, 401 York Avenue, Winnipeg Manitoba R3C 0P8, or <a href="https://www.gov.mb.ca/agriculture/livestock">www.gov.mb.ca/agriculture/livestock</a>. 71pp.

	Appendix IV	
Printout San	nple of a Manure Management Pla	ın

# LIVESTOCK MANURE AND MORTALITIES MANAGEMENT REGULATION M.R. 42/98

#### Manure Management Plan

Manitoba Conservation



All livestock operations in Manitoba with 400 animal units (A.U.) or more are required under Section 13(1) of the *Livestock Manure and Mortalities Management Regulation* under *The Environment Act*, to submit an annual manure management plan to Manitoba Conservation. The plan must be submitted by July 10 for fertilization programs beginning in the fall, and by February 10 for fertilization programs beginning in the spring.

#### **Section A – Operation Information**

Name of Operation	Porcherie Smith									
Mailing Address	1234 Hwy 305		So	mewhere						
3	Manitoba	Pos	stal code R1A 2I	33						
Location of Operation	SE 12 34 5									
200anon or operanon	Qtr Sec Twp Rge E/WPM or River Lot/Paris									
	La Broquerie	Latitud	e 98.1237 L	ongitude 49.5555						
	Rural Municipality	tural Municipality GPS in Decimal Degree								
Name of Contact	Jean	Smith								
Cantact Numbers	Business	Home	Cellular	Facsimile						
Contact Numbers	(204) 123-4567	(204) 890-1234	(204) 567-8901 Cellular	(204) 234-5678						
	Business	Home	Facsimile							
Owner (legal name)	Jean	Smith		12345687						
Mailing Address	4567 Hwy 305			orp File # if app newhere						
	Manitoba	Pos	stal co R1A 4B5							
Contact Numbers	(204) 123-4567	(204) 890-1234	(204) 567-8901	(204) 234-5678						
	Business	Home	Cellular	Facsimile						
Affiliate (legal name)	Livestock Inc.									
GPS coordinates, showing access, contact spread. Details of required information are registered unless this information is receif Manure management plan required to comply	e provided with y ved by Manitoba	our conditional r Conservation.	eceipt. Additior	nal MMPs will not be						
Yes If yes, Order number:										
FOR GOVERNMENT USE ONLY										
Received by:		Date:								
Office:										
		<del>_</del>								
Follow-up Required: Yes	No									
Follow-up Required: Yes  Nature of follow-up	No									
	No									
	No									
	No									

Please complete this form and forward to the Environmental Livestock Program, Manitoba Conservation, Box 46, 200 Saulteaux Crescent, Winnipeg MB R3J 3W3. Phone: 204-945-3789/Fax: 204-948-2420

#### Section B - Animal Unit Inventory

Species	Туре	A.U. Produced by One Livestock	Number of Livestock	A.U. for Each Livestock	
Pigs	Sows, farrow to finish	1.2500 X	100	125	

One animal unit is defined as the number of livestock required to excrete 73 kg (160 lbs) of nitrogen in a 12 month period; please refer to the Farm Practices Guidelines for Beef/Dairy/Hog/Poultry Producers in Manitoba for more information.

<sup>&</sup>lt;sup>2</sup> Do not include calves or replacement heifers; e.g. for 100 cow calf pairs with 30 replacement heifers, simply enter 100.

<sup>&</sup>lt;sup>3</sup> Weaned calves; do not include cow numbers

<sup>&</sup>lt;sup>4</sup> Cattle on finishing rations intended for slaughter.

### **Section C - Manure Storage Information**

Type of livestock manure stored Liquid  ☐ Field storage  ✓ Central storage											
Legal	GPS Coordinates	Anticipated Storage duration (months) (for field storage)	Construction Permit Number(s) or Registration Number(s) for storage								
SE 12-34-5 E	Latitude Longitude Decimal degrees	14									

#### **Section D - MANURE INFORMATION FOR LAND APPLICATION**

(One type per page; reproduce section D and section E for each type of livestock with 300 A.U. or more on the farm as necessary.)

Type of livestock Pigs										
Volume of manure to be land applied	1500000	Imp. Gallons								
Manure Analysis  ☐ Actual (1) ✓ Estimated (2)  Total nitrogen conte	ent in manure32	lbs/1000 lmp. G								
NH4 ppm P 8 lbs/1000 lmp. Gal.  (1)Please attach manure analysis report wi (2)If estimated, please indicate your source Other source (specify): Farm Practice										
Earliest anticipated manure application starting date: 1 10/01/2004 (MM/DD/YYYY)										

<sup>1</sup> This is the earliest date the first spread of manure will occur on this plan.

#### **Section E - Field Application Summary**

(One type per page; reproduce section D and section E for each type of livestock wih 300 A.U. or more on the farm as necessary.)

Crop year for \	Crop year for which manure will be applied: 2005													
Livestock type: Pigs				Manure form isL			quid If no manure is to be applied, check here for "none"					none"		
Legal	Field ID	GPS CC (4 field c Coordina Decimal D	corners ates in	Legal Owner + Phone	Field size <sup>1</sup> acres	Soil texture, <sup>2</sup> soil class <sup>5</sup> limiting factors	Soil NO3-N <sup>3</sup> (0-24") Ibs/acre		Crop, Crop N rec. <sup>4</sup> (lbs/ac)	Manure application rate	Application season & date	Application method 6	Additional N fertilizer <sup>7</sup> (lbs N/acre)	Applicator (with phone #) (license #)
NW 12-34-5 E	-			Jean Smith	155	Loam 3	40	65	Barley (feed)	6940	Fall	Injection	0	GoodWill Applicator
				(204) 123-4567		mw		bu/ac	120	Imp. Gal./ac	2004-Oct-01			(204) 356-7789 l <u>icense</u>
SW 12-34-5 E	North 1/2	98.1237 49.5555	98.124 49.5556	Jean Smith	120	Clay loam	45	5	Canola		Fall	Injection	0	Goodwill Applicator
		98.127 49.556	98.128 49.5565	(240) 123-4567		me		bu/ac	100	Imp. Gal./ac	2004-Oct-01			(204) 356-7789 l <u>icense</u>
49.556    49.5565									oose one of to er 3 days, Bro incorporation	he following: Bro padcast and incorp n on forages, Injectilizer + Manure A	padcast and incorp poration within 2 oction, Irrigation an	7 PUBLISHED SO oration after 2 days days, Broadcast and id incorporation wit must not result in So	s, Broadcast and in I no incorporation, thin 3 days, Irrigat	ncorporation Broadcast and tion and no

Fields to be manured must be soil sampled and the analytical reports submitted to Manitoba Conservation. Sound soil sampling procedures, as outlined page 7 of this form, are required to obtain an accurate soil nutrient assessment.

Note: Plan must be certified correct by operator on Page 5. If the plan is prepared for the operator, it must be certified correct by a Professional Agrologist on Page 5. Incorrect/Incomplete information voids this Manure Management Plan.

# 

#### MANITOBA CONSERVATION - REGIONAL OFFICES

Headquarters Operations 200 Saulteaux Crescent Winnipeg MB R3J 3W3	PH 945-2100 Fax 948-2420	Red River Region 555 Main Street Winkler MB R6W 1C4	PH 325-1750 Fax 325-1758	Western Region 204 - 1011 Rosser Ave Brandon MB R7A 0L5	PH 726-6064 Fax 726-6567
Red River Region Unit 5, 284 Reimer Ave Box 21450 Steinbach MB R0A 2T3	PH 346-6060 Fax 326-2472	Red River Region 25 Tupper St. N. Porage la Prairie MB R1N 3K1 PH	PH 239-3187 Fax 239-3185	Eastern Region Prov. Hwy #502 Lac du Bonnet MB R0E 1A0	PH 345-1486 Fax 345-1440
Red River Region 123 Main St., Suite 160 Winnipeg MB R3C 1A5	PH 947100 Fax 948-2420	Western Region 27 Second Ave SW Dauphin MB R7N 3E5	PH 622-2030 Fax 638-8626	Northwest Region 3rd _Ross Ave The Pas MB R9A 1M4	PH 627-8307 Fax 623-1773
Interlake Region 446 Main St. Selkirk MB R1A	PH 785-5030 Fax 785-5024	Western Region 201 Fourth Ave S Swan River MB	PH 734-3436 Fax 734-5615		

To report environmental emergencies call 944-4888 (24 hours)

#### **Schedule B - Manure Treatment**

Treatment category Effluent storage duration	
Solid effluent □ Liquid effluen ☑	
End use of effluent	=
Legal location of facilities	=
<u>Comments</u>	

#### Schedule C - Transfer of manure to a second party

Manure transfer category Given/sold for use as a fertilizer on fields not listed in Manure a

Details about receiving party

Name Fred Neighbour

Address 123 Down the Road, Overthere, MB

Postal Code R2A 3C4

Phone (204) 123-16

Mobile (204) 643-54

Fax (204) 156-41

Legal location of facilities NW 35-45-5 E

#### **Comments**

Pick up by Fred at the end of each production cycle (7 weeks).

#### TRADITIONAL COMPOSITE SOIL SAMPLING PROCEDURE

Other acceptable soil sampling procedures include the "Benchmark" soil sampling procedure, the "Grid" soil sampling procedure, and the "Landscape Directed" soil sampling procedure. Additional information on these procedures can be obta from your local Manitoba Agriculture and Food office or your Regional Manitoba Conversation offices.

#### Note that soil samples for manure management plans must be to the 60 cm (2 ft) depth.

The Soil Fertility Guide produced by Manitoba Agriculture, Food and Rural Initiatives is the only guide for fertility recommendations officially recognized by Manitoba Conservation. Recommendations from Laboratories or input dealers should only be used when application rates are lower than in this guide.

Reliable results can only be made if the samples are fully representative of the field or area from which they are taken. In addition, proper sampling and sample handling procedures must be followed.

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- mix the soil in each container thoroughly, breaking lumps to less than 12 mm (1/2 inch);
- remove about 0.5 liter (1 pint) of soil and spread on a piece of clean paper;
- completely dry at a temperature of not more that 30C
  - (do not dry in a oven at a high temperature since this can change the phosphorus, potassium, sulphur level
- care should be taken to avoid contamination of the samples with foreign materials such as commercial fertilizer, manur salt, baking soda, water, dust, etc. (e.g. samples should not be dried on old fertilizer or feed bags or in areas where fertilizers have been handled);
- a fan may be used to ensure constant air flow over samples and enhance drying.

Once the sample is throughly dry, fill the soil sample cartons. Label each carton with the correct field number and sample depth. Complete an information sheet for each field.

# DETAILED INSTRUCTIONS FOR COMPLETING MANURE STORAGE AND HANDLING PLANS & SCHEDULES

Whenever a check box appears, mark the appropriate boxes with to indicate choice.

The plan must be signed on the certification page by the person preparing the plan, or the plan is void. Manure managemer plans may be completed by the operator or by a Professional Agrologist working on behalf of the operator.

Throughout the plan, G.P.S. coordinates are requested, if available. These coordinates are not essential for registration, bu help to ensure the field(s) are accurately identified. It is recommended that G.P.S. coordinates be provided as an amendment if not available at the time of the initial plan submission.

If you require technical assistance, please contact your local Manitoba Agriculture, Food and Rural Initiatives District Office consult a Professional Agrologist.

#### **Section A - Operation Information**

- G.P.S. Provide G.P.S. in decimal degrees if available.
- Corporate file # All registered corporations have a corporate file number. Please provide if available.
- Affiliate If the operation is affiliated with a larger corporation, list the larger corporation here.
- Manure management plan required to comply with a Director's Order or an Environment Officer Order

  If the operation was ordered to file a plan by Manitoba Conservation as a condition of the Order, indicate and insert

  Order Number.

#### Section B - Animal Unit (A.U.) Inventory

- Use the worksheet in Schedule A to determine your animal units.
  - Determine the category in which your livestock operation fits.
  - Calculate and indicate the A.U.'s for each type of livestock in your operation.
  - If you are unsure as to which category your livestock operation fits into, contact your Regional Agricultural Representative office or Regional Manitoba Conversation office.
  - Do not double count animals.
- In Section B, only fill in the animal units of the species that combines to a total of 300 A.U. or greater
- At the top of Section D, fill in the total A.U.'s from that animal type in the box provided.
- Those ordered to file by director's order or Environment Officer's Order must submit Schedule A.

#### Section D - Manure Information for Land Application

- Ensure that one page is submitted for each type of livestock in your operation with 300 or more animal units (A.U.)
- Manure Analysis Section:
  - Ensure manure nitrogen ("N total") content is filled out on this form.
  - If manure has been sampled, attach a copy of the analysis report.
    - Indicate the total nitrogen, total P, NH4, and % of solids if available.
  - If manure nitrogen content is being estimated, please use a reliable source of information and indicate this source on the plan.
  - If you require assistance arriving at this estimate, please contact your Regional Agricultural, Food and Rural Initiatives office or Regional Manitoba Conversation office.
  - If the manure is being checked in the field by a custom applicator, please indicate in this along with the method used by the applicator.

#### **Section E - Field Application Summary**

- Ensure one page is submitted for each type of livestock operation with 300 or more animal units (A.U.)
- Ensure one page is submitted for each type of manure e.g 1 page for solids, one page for liquids.
- If no manure is to be spread in this plan year, indicate this by checking no manure

#### "Crop Year" Column

■ This is the year in which the nutrients will be taken up. Manure is to be used like a fertilizer. For example, a fall applicatio in 2004 (after August 15) on a field used for a cereal will be used as a fertilizer in the 2005 growing season. Therefore crop year would be 2005.

#### "Legal Description" Column

■ Indicate the legal location as ¼ Section, Township, Range or River Lot(s) and Parish, e.g. SW 30-14-3W or RL 110-115 Baie St. Paul.

#### "G.P.S. Coordinates" Column

■ If available, provide G.P.S. coordinates of spread field. Format should be decimal degrees, with Latitude above Longitude: e.g. one corner would be :

Latitude = N Longitude = W 49.13716 097.55209

#### "Field Size" Column

■ Indicate only the field acreage on which manure will be applied, considering recommended setbacks and excluding land that may not be suitable for application (e.g. low areas, brush, sink holes, etc.).

#### "Soil Class and Subclass" Column

- This refers to the soil class as described under the heading "Soil Capability Classification for Agriculture" in *The Canada Land Inventory*Report no. 2, published in 1972 by the Government of Canada, Department of the Environment.
- Both class (1-7) and subclass(limiting factor(s)) must be included for the plan to be registered.
- This information is available from Manitoba Agriculture, Food and Rural Initiatives (MAFRI), and may also be available at <a href="http://geoapp2.gov.mb.ca/website/mafri/">http://geoapp2.gov.mb.ca/website/mafri/</a>
- For those with GIS mapping software, the information is available throught the Manitoba Land Initiative at <a href="http://mli.gov.mb.ca">http://mli.gov.mb.ca</a>

#### "Soil Nitrate" Column

- This information can be obtained from the soil analysis report.
- Ensure soil-testing procedures as indicated on the attached sheet have been followed.
- Ensure you attach a copy of the soil analysis reports to this plan. alternatively, you may submit the soil test up to 14 day prior to manure application

#### "Target Yield" Column

- Indicate anticipated target yield for the crop year on that site.
- Contact your Regional Agricultural Representative office or Regional Manitoba Conversation office, should you have difficulty in estimating this target yield.

#### "Crop Nitrogen Recommendation" Column

■ This information can be obtained from the MAFRI Soil Fertility Guide, available from your local MAFRI office. In the event one is provided with your soil test report, use the lower of the two values.

#### "Manure Application Rate" Column

■ Report your intended application rate in gallons per acre (or tons per acre). Your Regional Agricultural Representive office or a professional agrologist can also be of assistance for this step.

#### "Application Method" Column

■ Choose one of the following and put the corresponding letter on the form: A. Broadcast and incorporate after 2 days, B. Broadcast + Incorporate after 3 days. C. Broadcast and incorporate within 2 days. D. Broadcast and no incorporation. E Broadcast and no incorporation on forages. F. Injection. G. Irrigation and incorporation within 3 days. H. Irrigation and r incorporation. NB: Aerway or similar is considered broadcast + Incorporate for purpose of plan.

#### "Additional Nitrogen Fertilizer" Column

- If applicable, please indicate the amount of commercial fertilizer that will be applied in addition to the manure.
- Note that fertilizer and manure application must not result in soil nitrate in excess of regulated limit

Manure Management Plans must be submitted by July 10 for fertilization programs beginning in the fall and by February 10 fertilization programs beginning in the spring. Plans submitted after the July or February dates will be subject to a \$100.00 administration fee.

Submit completed and signed Manure Management Plans, together with all the required analysis reports to the **Environmental Livestock Program, Manitoba Conservation, Box 46, 200 Saulteaux Crescent, Winnipeg MB R3J 3W3** (Phone: 204-945-3789/Fax: 204-948-2420).

#### **Laboratories Acceptable to the Director**

As of June 28, 2004, the following Laboratories (alphabetical order) are approved for use in analyzing soil for nitrate lev

A & L Laboratories Agvise Laboratories Cantest Environ-Test Laboratories Norwest Labs

This list is subject to change pending a comprehensive review of methods and reporting format. Consultants or other laboratories may subcontract to these laboratories. Manure Management Planners are advised to check Manitoba Conservation's website at <a href="http://www.gov.mb.ca/conservation/regoperations/livestockfor">http://www.gov.mb.ca/conservation/regoperations/livestockfor</a> current listings.

As Western Ag. Laboratories and Midwest Laboratories subcontract soil nitrate analysis to one of the above, they are considered acceptable as long as reporting requirements meet the expectations of Manitoba Conservation.

Note: Plans must be certified by operator on Page 5. If the plan is prepared for the operator, it must be certified by a Professional Agrologist on page 5. Incorrect/incomplete information voids this Manure Management Plan.

Please ensure that this Manure Management Plan, completed and signed, is submitted along with all the required analysis reports to the Environmenta Livestock Program at Manitoba Conservation, Box 46, 200 Saulteaux Crescent, Winnipeg MB R3 (Phone: 204 945-3789/Fax: 204-948-2420) at least 60 days prior to the beginning of land application.

## Appendix V

# Printout Sample of an Amendment to a Manure Management Plan

In addition to section A (first page) only the pages of the manure management plan where information as been updated or changed need to be submitted to Manitoba Conservation to file an amendment to a manure management plan. For example, to amend a plan by adding one or more fields for land application of manure, an application for amendment will include the Operation Information report (section A) and the Field Application Summary (section E).

# LIVESTOCK MANURE AND MORTALITIES MANAGEMENT REGULATION M.R. 42/98

#### Manure Management Plan

Manitoba Conservation



All livestock operations in Manitoba with 400 animal units (A.U.) or more are required under Section 13(1) of the *Livestock Manure and Mortalities Management Regulation* under *The Environment Act*, to submit an annual manure management plan to Manitoba Conservation. The plan must be submitted by July 10 for fertilization programs beginning in the fall, and by February 10 for fertilization programs beginning in the spring.

#### **Section A – Operation Information**

Name of Operation	Porcherie Smith									
Mailing Address	1234 Hwy 305		So	mewhere						
3	Manitoba	Pos	stal code R1A 2I	33						
Location of Operation	SE 12 34 5									
200anon or operanon	Qtr Sec Twp Rge E/WPM or River Lot/Paris									
	La Broquerie	Latitud	e 98.1237 L	ongitude 49.5555						
	Rural Municipality	tural Municipality GPS in Decimal Degree								
Name of Contact	Jean	Smith								
Cantact Numbers	Business	Home	Cellular	Facsimile						
Contact Numbers	(204) 123-4567	(204) 890-1234	(204) 567-8901 Cellular	(204) 234-5678						
	Business	Home	Facsimile							
Owner (legal name)	Jean	Smith		12345687						
Mailing Address	4567 Hwy 305			orp File # if app newhere						
	Manitoba	Pos	stal co R1A 4B5							
Contact Numbers	(204) 123-4567	(204) 890-1234	(204) 567-8901	(204) 234-5678						
	Business	Home	Cellular	Facsimile						
Affiliate (legal name)	Livestock Inc.									
GPS coordinates, showing access, contact spread. Details of required information are registered unless this information is receif Manure management plan required to comply	e provided with y ved by Manitoba	our conditional r Conservation.	eceipt. Additior	nal MMPs will not be						
Yes If yes, Order number:										
FOR GOVERNMENT USE ONLY										
Received by:		Date:								
Office:										
		<del>_</del>								
Follow-up Required: Yes	No									
Follow-up Required: Yes  Nature of follow-up	No									
	No									
	No									
	No									

Please complete this form and forward to the Environmental Livestock Program, Manitoba Conservation, Box 46, 200 Saulteaux Crescent, Winnipeg MB R3J 3W3. Phone: 204-945-3789/Fax: 204-948-2420

#### **Section E - Field Application Summary**

(One type per page; reproduce section D and section E for each type of livestock wih 300 A.U. or more on the farm as necessary.)

Crop year for v	Crop year for which manure will be applied: 2005													
Livestock type: Pigs					Ма	nure form is _	Lie	Liquid If no manure is to be applied, check here for "none"						
Legal	Field ID	GPS CC (4 field c Coordina Decimal D	corners ates in	Legal Owner + Phone	Field size <sup>1</sup> acres	Soil texture, <sup>2</sup> soil class <sup>5</sup> limiting factors	Soil NO3-N <sup>3</sup> (0-24") lbs/acre	Targey yield	Crop, Crop N rec. <sup>4</sup> (lbs/ac)	Manure application rate	Application season & date	Application method 6	Additional N fertilizer <sup>7</sup> (lbs N/acre)	Applicator (with phone #) (license #)
NW 12-34-5 E	-			Jean	155	Loam	40	65	Barley (feed)	6940	Fall	Injection	0	GoodWill Applicator
	-			Smith (204) 123-4567		3 mw		bu/ac	120	Imp. Gal./ac	2004-Oct-01			(204) 356-7789 license
SW 12-34-5 E	L	98.1237	98.124	Jean	120	Clay loam	45	5	Canola		Fall	Injection	0	Goodwill Applicator
	1/2	49.5555 98.127	49.5556 98.128	Smith		3		hu/oo	100	Imp. Cal /aa	2004 Oct 04			(204) 356-7789
	-	49.556	49.5565	(240) 123-4567		me		bu/ac	100	imp. Gai./ac	2004-Oct-01			(204) 356-7769 l <u>icense</u>
SE 12-34-5 W	L	98.1237	98.124	Jean	120	Clay loam					Fall	Broadcast	0	Allan Caners
	1/2	49.5555	49.5556	Smith		3						and incorporation		
	-	98.127 49.556	98.128 49.5565	(240) 123-4567		me					2004-Aug-31	after 2 days		(204) 213-4556 license
1 Indicate only the a	vailable a	cres for manu	re spreading (	exclusive of setbacks from	n surfac	e water courses, etc.).		5 Mu	st list correc	AG. Capability	AS STATED BY	PUBLISHED SO	OIL SURVEY RI	<u>EPOR</u> T
		-		port, you must indicate th							•	oration after 2 days		•
	•			rm. If soil analysis repor								days, Broadcast and id incorporation wit	•	
	_			arded to Manitoba Conse suggested in the soil ana			manure.		litional Ferti nat crop year		application Rate m	nust not result in So	il NO3- above the	e regulated limit

Fields to be manured must be soil sampled and the analytical reports submitted to Manitoba Conservation. Sound soil sampling procedures, as outlined page 7 of this form, are required to obtain an accurate soil nutrient assessment.

Note: Plan must be certified correct by operator on Page 5. If the plan is prepared for the operator, it must be certified correct by a Professional Agrologist on Page 5. Incorrect/Incomplete information voids this Manure Management Plan.

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# Appendix VI

Printout Sample for a Confirmation Report

In addition to section A (first page) only the pages of the manure management plan where information as been updated or changed need to be submitted to Manitoba Conservation. Most often but not exclusively, a confirmation report will be comprised of Operation Information report (section A), Manure Nutrient Information report (section D), and the Field Application Summary (section E). A signed certification page should also be included.

# LIVESTOCK MANURE AND MORTALITIES MANAGEMENT REGULATION M.R. 42/98

#### Manure Management Plan

Manitoba Conservation



All livestock operations in Manitoba with 400 animal units (A.U.) or more are required under Section 13(1) of the *Livestock Manure and Mortalities Management Regulation* under *The Environment Act*, to submit an annual manure management plan to Manitoba Conservation. The plan must be submitted by July 10 for fertilization programs beginning in the fall, and by February 10 for fertilization programs beginning in the spring.

#### **Section A – Operation Information**

Name of Operation	Porcherie Smith									
Mailing Address	1234 Hwy 305		So	mewhere						
3	Manitoba	Pos	stal code R1A 2I	33						
Location of Operation	SE 12 34 5									
200anon or operanon	Qtr Sec Twp Rge E/WPM or River Lot/Paris									
	La Broquerie	Latitud	e 98.1237 L	ongitude 49.5555						
	Rural Municipality	tural Municipality GPS in Decimal Degree								
Name of Contact	Jean	Smith								
Cantact Numbers	Business	Home	Cellular	Facsimile						
Contact Numbers	(204) 123-4567	(204) 890-1234	(204) 567-8901 Cellular	(204) 234-5678						
	Business	Home	Facsimile							
Owner (legal name)	Jean	Smith		12345687						
Mailing Address	4567 Hwy 305			orp File # if app newhere						
	Manitoba	Pos	stal co R1A 4B5							
Contact Numbers	(204) 123-4567	(204) 890-1234	(204) 567-8901	(204) 234-5678						
	Business	Home	Cellular	Facsimile						
Affiliate (legal name)	Livestock Inc.									
GPS coordinates, showing access, contact spread. Details of required information are registered unless this information is receif Manure management plan required to comply	e provided with y ved by Manitoba	our conditional r Conservation.	eceipt. Additior	nal MMPs will not be						
Yes If yes, Order number:										
FOR GOVERNMENT USE ONLY										
Received by:		Date:								
Office:										
		<del>_</del>								
Follow-up Required: Yes	No									
Follow-up Required: Yes  Nature of follow-up	No									
	No									
	No									
	No									

Please complete this form and forward to the Environmental Livestock Program, Manitoba Conservation, Box 46, 200 Saulteaux Crescent, Winnipeg MB R3J 3W3. Phone: 204-945-3789/Fax: 204-948-2420

#### **Section E - Field Application Summary**

(One type per page; reproduce section D and section E for each type of livestock wih 300 A.U. or more on the farm as necessary.)

Crop year for v	Crop year for which manure will be applied:													
Livestock type: Pigs					Ма	nure form is _	Li	quid	d If no manure is to be applied, check here for "none"					
Legal	Field ID	GPS COORDS (4 field corners Coordinates in Decimal Degrees)		Legal Owner + Phone	Field size <sup>1</sup> acres	Soil texture, <sup>2</sup> soil class <sup>5</sup> limiting factors	Soil NO3-N <sup>3</sup> (0-24") lbs/acre	Target yield	Crop, Crop N rec. <sup>4</sup> (lbs/ac)	Manure application rate	Application season & date	Application method 6	Additional N fertilizer <sup>7</sup> (lbs N/acre)	Applicator (with phone #) (license #)
NW 12-34-5 E	-			Jean	155	Loam	40	65	Barley (feed)	6940	Fall	Injection	0	GoodWill Applicator
	-			Smith (204) 123-4567		3 mw		bu/ac	120	Imp. Gal./ac	2004-Nov-02			(204) 356-7789 license
SW 12-34-5 E	L	98.1237	98.124	Jean	120	Clay loam	45	5	Canola		Fall	Injection	0	Goodwill Applicator
	1/2	49.5555 98.127	49.5556 98.128	Smith		3		hu/oo	100	Imp. Cal /aa	2004-Nov-03			(204) 256 7790
	=	49.556	49.5565	(240) 123-4567		me		bu/ac	Ju/ac 100	imp. Gai./ac 2	2004 1407-03			(204) 356-7789 license
SE 12-34-5 W	<u> </u>	98.1237	98.124	Jean	120	Clay loam					Fall	Broadcast	0	Allan Caners
	1/2	49.5555	49.5556	Smith		3						and incorporation		(
	-	98.127 49.556	98.128 49.5565	(240) 123-4567		me					2004-Aug-31	after 2 days		(204) 213-4556 license
1 Indicate only the a	vailable a	cres for manu	re spreading (e	exclusive of setbacks from	m surface	e water courses, etc.).		5 Mu	st list correc	t AG. Capability	AS STATED BY	PUBLISHED SO	DIL SURVEY R	<u>EPOR</u> T
		•		port, you must indicate the						_	•	oration after 2 days lays, Broadcast and		•
	•			<ul> <li>rm. If soil analysis report</li> <li>arded to Manitoba Conse</li> </ul>			manura				•	d incorporation wit	•	
	Ū			suggested in the soil ana	-		manurc.		litional Ferti nat crop year		application Rate m	nust not result in So	il NO3- above the	e regulated limit

Fields to be manured must be soil sampled and the analytical reports submitted to Manitoba Conservation. Sound soil sampling procedures, as outlined page 7 of this form, are required to obtain an accurate soil nutrient assessment.

Note: Plan must be certified correct by operator on Page 5. If the plan is prepared for the operator, it must be certified correct by a Professional Agrologist on Page 5. Incorrect/Incomplete information voids this Manure Management Plan.

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# Section F - Certification of Manure Management Plan I certify that the statements and information in this plan are true and that no relevant information he been withheld. Signature of Operator \_\_\_\_\_\_\_ Date (YYYY/MM/DD) \_\_\_\_\_\_\_\_\_ Plan prepared by person other than Operator Signature of P. Ag. \_\_\_\_\_\_\_\_ Prepared by: Date (YYYY/MM/DD) \_\_\_\_\_\_\_\_ P. Ag. Number \_\_\_\_\_\_\_ Phone Number and Contact info of above Certified Correct (P. Ag. Stamp):

#### MANITOBA CONSERVATION - REGIONAL OFFICES

Headquarters Operations 200 Saulteaux Crescent Winnipeg MB R3J 3W3	PH 945-2100 Fax 948-2420	Red River Region 555 Main Street Winkler MB R6W 1C4	PH 325-1750 Fax 325-1758	Western Region 204 - 1011 Rosser Ave Brandon MB R7A 0L5	PH 726-6064 Fax 726-6567
Red River Region Unit 5, 284 Reimer Ave Box 21450 Steinbach MB R0A 2T3	PH 346-6060 Fax 326-2472	Red River Region 25 Tupper St. N. Porage la Prairie MB R1N 3K1 PH	PH 239-3187 Fax 239-3185	Eastern Region Prov. Hwy #502 Lac du Bonnet MB R0E 1A0	PH 345-1486 Fax 345-1440
Red River Region 123 Main St., Suite 160 Winnipeg MB R3C 1A5	PH 947100 Fax 948-2420	Western Region 27 Second Ave SW Dauphin MB R7N 3E5	PH 622-2030 Fax 638-8626	Northwest Region 3rd _Ross Ave The Pas MB R9A 1M4	PH 627-8307 Fax 623-1773
Interlake Region 446 Main St. Selkirk MB R1A	PH 785-5030 Fax 785-5024	Western Region 201 Fourth Ave S Swan River MB	PH 734-3436 Fax 734-5615		

To report environmental emergencies call 944-4888 (24 hours)

