**SITE ASSESSMENT**

**For Large Livestock Operation Proposals (300 Animal Units or more)**

**1.0 Purpose**

The set up, or expansion, of a livestock operation that has 300 Animal Units or more is subject to Part 7 of *The Planning Act*. This includes consideration as a conditional use by the municipal council or planning district board. It also includes a review by the Technical Review Committee (TRC) appointed by the Minister of Local Government. The Technical Review Committee Regulation requires a site assessment to help the committee do its review and allow people who will be affected by the livestock operation to comment on the proposal.

**2.0 Assistance**

For assistance in completing the Site Assessment Form please refer to the following.

For links to resources, click on the highlighted underlined items.

For additional information on a particular item, please click on the (?) "Learn More" icon.

For definitions, click on the Glossary of Terms.

For help with mapping, contact your Community and Regional Planning Regional Office.

For additional help, contact the Technical Review Coordination Unit.

**3.0 Description of Livestock Operation**

Operation legal name, if other than the owner's name:

Canada Sheep and Lamb Farms Ltd

Operation location (project site): SW28-3-8E

Rural Municipality (RM) of Stuartburn

Legal description: section, township, range or river lot(s)
SW28-3-8E

Manitoba Premises Identification Number: 16029 44E

Municipal tax roll number(s): 190900

Show the location of the operation (project site) on a location map. (See Location Map for example).

☒ Location Map attached

**4.0 Nature of Project**

☒ **New operation**

☐ **Expansion of existing operation**

State if any existing buildings will be replaced or demolished. If existing buildings will be reused or expanded, state how they will be reused or expanded.

The site will be develop. ed into a covered and paved animal confinement facility. Existing buildings will be temporarily used during construction and demolished shortly after their usefulness will have ceased.

**5.0 Proposed Type and Size of Operation**

State the proposed type and size of the operation. (See Animal Units Calculation Table.)

| Type of operation (Column B from Animal Units Calculation Table) | Existing number of animals (Column C from Animal Units Calculation Table) | Total Animal Units (Column F from Animal Units Calculation Table) |
|---|---|---|
| Lamb feeder | Existing - 0 | |
| | Proposed - 15,000 | 945 AU |
| | | |
| | | |

☒ Animal Units Calculation Table attached

**6.0 Animal Confinement Facilities**

**Outdoor Confined Livestock Area**

To ensure that it can be built in a way that the environment is protected, a permit is required for construction and expansion of confined livestock areas for operations with 300 Animal Units or more. Permits are required by the Livestock Manure and Mortalities Management Regulation (MR 42/98), under *The Environment Act*.

Confined Livestock Area: ☐ outdoor seasonal feeding area ☐ feedlot ☐ not applicable

**Indoor Barn/Animal Housing**

Indoor Animal Housing: ☐ barn ☒ other (describe) COMPLETELY COVERED PEN AREA WITH CONCRETE FLOOR, OPEN SIDES, NATURALLY VENTILATED ANIMAL CONFINEMENT FACILITY. ☐ not applicable

A permit under the Livestock Manure and Mortalities Management Regulation is not required for an indoor housing area or barn unless there is a manure storage facility within the building (an under barn storage capable of storing manure for 30 days or more).

Show all existing, proposed buildings and additions to existing buildings on the project site plan. See Project Site Plan example and the Project *Site Plan Guide* for help creating your site plan.

☒ Project Site Plan attached

**7.0 Environmental Farm Planning**

Environmental farm planning is a voluntary, confidential self-assessment process designed to help farm managers identify the environmental strengths and weaknesses of their operations.

Do you have an Environmental Farm Plan ☐ yes ☒ no

If so, is it current (completed within past 5 years) ☐ yes ☐ no

**8.0 Water**

**Project Sites Unsuitable for Development**

To protect water quality, the Nutrient Management Regulation (MR 62/2008), under *The Water Protection Act*, prohibits the set up or expansion of nutrient generating facilities in Nutrient Management Zone 4 (Agriculture Capability Class 6, 7 and unimproved organic soils) and Nutrient Buffer Zones. Nutrient generating facilities include barns, confined livestock areas and manure storage facilities.

Nutrient Buffer Zone as defined in section 3(3) of the regulation includes areas of land along water bodies such as rivers, lakes, streams and drains.

The proposed indoor housing area, barn, confined livestock area and/or manure storage facility:

will ☐
will not ☒

be located within Nutrient Management Zone 4 (Class 6, 7 and unimproved organic soils) or any Nutrient Buffer Zone.

Determine the agriculture capability class(es) of the project site, and its limitations. This information is available from Manitoba Agriculture, Food and Rural Development (MAFRD) at 204-945-3869 in Winnipeg. Alternatively, use the following link: Land Based Calculator.

**Water Source** ?

To be sustainable, a livestock operation must have access to a sufficient quantity and quality of water for livestock.

Water source for operation:

| | |
|---|---|
| ☐ pipeline (public) | ☐ water co-operative |
| ☒ proposed well | ☐ existing well |
| ☐ river | ☐ lake |
| ☐ dugout (dimensions : ____ x ___ x ____) | |

If using an existing well, provide a copy of the water well log and logs for other wells on the property. Logs can be obtained from Manitoba Conservation and Water Stewardship by calling (204) 945-7418 in Winnipeg; 1-800-214-6497 toll free.

**Source Water Analysis Reports**

Annual livestock source water monitoring analysis reports must be submitted to Manitoba Conservation and Water Stewardship for any operations of 300 Animal Units or more.

If an existing livestock operation of 300 Animal Units or more, have you submitted an annual source water monitoring report for the current calendar year? ☐ yes ☒ no n/a

Will livestock have direct access to surface water (not including dugouts)? ☐ yes ☒ no

If yes, identify:
Name of the surface water feature: _____

List any steps that will be taken to prevent direct access of livestock to the water body.

Lambs will be totally confined within the covered pens, from arrival up to slaughter

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**Water Requirements**

**Protecting the interests of domestic users and the environment, in addition to existing licensees, is the intended purpose of the water rights licensing scheme.**

**In order to protect the sustainability of water sources, all operations using more than 25,000 litres (5,499 imperial gallons) per day must possess a Water Rights Licence required by the Water Rights Regulation (MR 126/87) under *The Water Rights Act*.**

For more information on the Water Rights Licensing process, contact the Water Use Licensing Section at (204) 945-3983 in Winnipeg; 1-800-214-6497 toll free.

**Water Use** ?
To calculate the total water use, go to the Water Requirement Calculation Table.

Maximum daily use: 24,000 ☒ imperial gallons or ☐ litres
Maximum annual use: 8,760,000 ☐ acre-feet or ☐ cubic decameters

☒ Water Requirement Calculation Table attached

**Groundwater (Contamination Risk Protection)**

Improper storage and handling of manure or mortalities increases the risk of contaminating groundwater. Beneficial management practices (BMP), mitigation measures and requirements for the permit process reduce this risk. Soil testing, manure management planning and proper engineering, along with construction and management of manure storage structures reduce the risk of contaminating groundwater.

Check off the mitigation measures used for the existing components of the operation that may pose a risk of contamination. Also check off any measures that may be used with the proposed components for this expansion, if applicable:

| | Existing | Proposed |
|---|---|---|
| Manure is stored in a storage facility built by permit or registered by Manitoba Conservation and Water Stewardship | ☐ | ☐ N/A |
| Storage includes leachate collection | ☐ | ☐ N/A |
| Earthen storage has between 400 and 500 days storage | ☐ | ☐ N/A |
| Steel/concrete tank has between 250 and 500 days storage | ☐ | ☐ N/A |
| Manure storage facility meets required setbacks | ☐ | ☐ N/A |
| Field storage (solid manure) locations are changed annually | ☐ | ☒ |
| Field storage meets required setbacks | ☐ | ☒ |
| All application fields are soil tested annually for nitrate-N and Olsen phosphorus | ☐ | ☒ |
| All manure is applied according to a manure management plan | ☐ | ☒ |
| Licensed commercial manure applicator is used to apply manure | ☐ | ☐ OWNER |
| Abandoned wells have been properly sealed | ☐ | ☒ IF ENCOUNTERED |

Other:

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**Building in Flood Areas**

The Livestock Manure and Mortalities Management Regulation prohibits an operator from putting a manure storage facility within the boundaries of the 100-year flood plain elevation. Manure storage facilities that are constructed with protection for a flood-water level at least 0.6 meters higher than the 100-year flood water level are exempt.

The Designated Flood Area Regulation under *The Water Resources Administration Act* requires a Designated Flood Area Permit before a proposed structure (such as a barn) can be built within a Designated Flood Area.

The flood protection level for structures located within a Designated Flood Area is the site specific design flood level plus freeboard, as provided by the Hydraulic Forecasting Branch of Manitoba Infrastructure and Transportation. Contact the Hydrologic Forecasting Branch at (204) 945-2121 in Winnipeg; 1-800-214-6497 toll free.

The proposed site:
is ☐ is not ☒

located in a Designated Flood Area: Red River Valley Designated Flood Area or Lower Red River Designated Flood Area

**Note: At the time a permit is issued, verification is needed to ensure any proposed structure(s) are located within the 100-year flood plain elevation; or at an elevation set by Manitoba Infrastructure and Transportation.**

**Watershed Management Planning**
Integrated watershed management planning is a co-operative effort by local residents, stakeholders and governments to create a long term plan to manage water and land-based activities for watersheds.

What are the names of the watershed and sub-watershed where the livestock operation and the fields identified for manure application are located?

Name of watershed(s): Red River

Name of sub-watershed(s): Rat River

Name of Integrated Watershed Management Plan for the proposed project site, if applicable: Rat Marsh River IWMP

For more on Integrated Watershed Management Planning, call Watershed Planning and Programs at (204) 945-7408 in Winnipeg; 1-800-214-6497 toll free.

**9.0 Manure**

The Livestock Manure and Mortalities Management Regulation sets requirements for the use, management and storage of livestock manure in agricultural operations, to ensure it is handled in an environmentally sound manner. For more information on this, call Manitoba Conservation and Water Stewardship at (204) 619-2230 in Winnipeg.

Improper storage, handling and/or land application of manure can contaminate water and/or cause unacceptable odours for neighbours. The following is used to assess the manure management system.

**Manure Type**
The type of manure generated and used by the operation influences storage, handling and land application options available.

What type(s) of manure will be generated?

☒ solid ☐ semi-solid ☐ liquid

**Manure Volume or Weight**
Manure production can be estimated using the Manure Production Calculator Table. The sizing of the manure storage is the responsibility of the operator and must be constructed in accordance with the Livestock Manure and Mortalities Management Regulation. Design and construction of a manure storage facility is dependent on the type of structure; earthen manure storage facilities must have between 400 and 500 days capacity, a steel or concrete storage tank must have between 250 and 500 days capacity. This ensures the facility has sufficient capacity eliminating the need for winter application.

What will be the total volume or weight of manure generated annually by the livestock operation? (See Manure Production Calculator Table.)

liquid volume:_____ solid weight: 7 994 tons
Based on historical experience and http://www.sheep101.info/201/nutrientmgt.html

☒ Manure Production Calculator Table attached

N.B.: No data for sheep.

**Manure Storage Type and Capacity**

The type of storage system used will affect the capacity requirements for the manure storage facility or field storage area.

What type of manure storage facility will be used by the operation?

☐ under-barn concrete ☐ earthen manure storage ☐ concrete tank(s)
☐ steel tank(s) ☒ field storage ☐ molehill

Provide the dimensions of the existing and/or proposed manure storage facilities, if applicable. (See Existing and Proposed Manure Storage Facility Dimensions Table.)

☐ Existing and Proposed Manure Storage Facility Dimensions Table attached

**Odour Control Measures (project site)**

Barns and manure storage facilities can be significant sources of livestock odours. The use of manure storage covers and shelterbelts can reduce this, particularly for neighbours in the vicinity of the operation.

What odour control measures are you planning to use?

Manure storage cover: ☐ yes ☒ no

Type of cover: _____

Shelterbelt planting: ☐ yes ☐ no ☒ existing shelterbelt Some of the existing wooded area will be retained and improved.

Other measures (specify): All manure will be composted

**Manure Treatment**

Under *The Environment Act*, the director must not issue a permit for the modification, expansion, or construction of a manure storage facility accommodating an increase in the number of animal units for pigs, unless the manure is treated using anaerobic digestion or another environmentally sound treatment that is similar to or better than anaerobic digestion, according to Manitoba Conservation and Water Stewardship.

Does your proposal include anaerobic digestion or another environmentally sound treatment for manure?

☒ yes ☐ no ☐ not applicable

If yes, please describe Mechanical composting of manure in fields. Compost windrows are turned every 10 days or so, 3 to 4 times from spring to land application.

**Manure Application Method**

The Livestock Manure and Mortalities Management Regulation requires the registration of annual manure management plans for new or expanding operations with 300 Animal Units or more.

Does the operation currently file an annual Manure Management Plan with Manitoba Conservation and Water Stewardship? (For operations with 300 Animal Units or more, only)

☐ yes ☒ no

Manure application methods and the season in which manure is applied affect odour, nutrient availability, crop response, land base requirements and the risk of water contamination.

Proposed application method:

☒ broadcast ☐ broadcast and incorporation within 48 hours ☐ injection

The Livestock Manure and Mortalities Management Regulation prohibits the application of manure from November 10 of one year to April 10 of the following year (winter application).

Time of year for application: ☒ spring ☒ summer ☒ fall

The Livestock Manure and Mortalities Management Regulation puts restrictions on fall application of manure in the Red River Valley Special Management Area.

The proposed spread fields:

are ☐

are not ☒

in the Red River Valley Special Management Area.

**Land Available for Manure Application**

The land available for manure application includes all suitable land (owned, leased or under agreement) that is available to the operation for manure application.

Under the Livestock Manure and Mortalities Management Regulation and the Nutrient Management Regulation, application of nutrients is not permitted on Agriculture Capability Class 6, 7 and unimproved organic soils (Nutrient Management Zone 4) and within Nutrient Buffer Zones.

Areas of a field that are Class 6, 7, unimproved organic soils (Nutrient Management Zone 4) or areas within the nutrient buffer zones are considered unsuitable for manure application. In addition, fields with 60 parts per million (ppm) Olsen phosphorus (P) in the top six inches (15 centimetres) of soil cannot be included in the land base calculation.

Nutrients cannot be applied within the Nutrient Buffer Zones as outlined in the Nutrient Management Regulation (62/2008) and illustrated in the Setback Requirements From Water Features Table.

**Has the setback area for all water features been observed and excluded from land base calculations for this operation?**

☒ yes ☐ no

Use the Manure Application Field Characteristics Table to determine the following:

| | |
|---|---|
| **Total suitable area available for manure application** | 2057 acres |

Canada Sheep + Lamb Farms Ltd. will clear all trees/bush as required to facilitate cropping and manure application.

☒ Manure Application Field Characteristics Table attached

Copies of soil test reports that are no more than 12 months old must also be included with this submission.

☒ Soil test reports for the required area for manure application attached.

**Land Required for Manure Application**

Long term, land base requirements for manure application are calculated based on estimates of the quantity of nutrients (nitrogen and phosphorus) excreted by livestock and the removal of nutrients by the proposed crops.

**Phosphorus**

The quantity of phosphorus excreted by the livestock depends on the type, number and size of livestock, the quantity and availablility of phosphorus fed to the livestock and the amount retained by the livestock.

The removal of phosphorus by crops depends on the crops grown and the historical crop yield averages. (See the Crop Rotation Table).

The Livestock Manure and Mortalities Management Regulation requires that "sufficient land is available to the operator to implement an appropriate manure management plan" before Manitoba Conservation and Water Stewardship will issue a permit for a manure storage facility.

"*Certain Areas*" are defined by the Livestock Manure and Mortalities Management Regulation (M.R. 42/98) as areas where the amount of phosphorus in the manure produced annually by livestock in an area of not less than 93.24 $km^2$ is greater than two times the annual crop removal rate of $P_2O_5$ in that area. Currently the rural municipalities of Hanover and La Broquerie are considered to be "*certain areas*".

A livestock operation is considered to be located within a "*certain area*" if any part of the operation is located within the "*certain area*". This may include, but not limited to, barn(s), confined livestock area(s), field storage location(s), manure storage facility(ies), and/or spread filed(s).

In "*certain areas*" it is Manitoba Conservation and Water Stewardship policy to consider a manure storage facility permit if the operation shows it has access to sufficient suitable land to apply manure at a rate equivalent to one times the crop removal rate of phosphorus.

Is the livestock operation located in "*certain areas*"?

☐ yes ☒ no

In areas which are not considered to be "*certain areas*", Manitoba Conservation and Water Stewardship may issue a manure storage facility permit, if the operation shows it has access to sufficient suitable land to apply manure at a rate equivalent to two times the crop removal rate of phosphorus.

For more information on obtaining a manure storage facility permit, please contact Manitoba Conservation and Water Stewardship, Environmental Approvals branch at (204) 945-5081.

Use the Land Base Calculator to calculate the minimum area required for manure application.

| | |
|---|---|
| **Total minimum area required for manure application at two times crop removal, for operations outside of Hanover and La Broquerie** | **1247 acres** |
| **Total minimum area required for manure application at one times crop removal, for operations within Hanover and La Broquerie AND For the long-term sustainability of operations outside of Hanover and La Broquerie** | **2493 acres** |

For more information on completing land base calculations, call Manitoba Agriculture, Food and Rural Initiatives (MAFRI) at (204) 945-3869 in Winnipeg.

☒ Land Base Calculator attached

**Land Base Requirement Summary**

By comparing the land **available** for manure application with the land **required** for manure application, state whether sufficient suitable land for manure application:

☐ has not been identified

☒ has been identified for two times the crop removal rate of phosphorus (for operations outside of the RMs of Hanover or La Broquerie)

☐ has been identified for one times the crop removal rate of phosphorus (for operations within the RMs of Hanover and La Broquerie)

**Long-Term Environmental Sustainability**

The Government of Manitoba has included phosphorus as a nutrient by which applications of manure, synthetic fertilizer and municipal waste sludge to agricultural lands may be limited.

Over the short-term for fields with low phosphorus, regulations allow manure to be applied to meet the nitrogen requirements of the crop. This often results in over-application of phosphorus and a build-up of phosphorus in soils. When soil test phosphorus levels reach 60 ppm Olsen P, manure application rates must consider how much phosphorus will be removed in the harvested portion of the crop. At 60 to 119 ppm Olsen P, the amount of phosphorus that can be applied cannot exceed twice (two times) what the crop can remove in order to slow the build-up of soil phosphorus. Once soil test phosphorus levels reach 120 ppm Olsen P, applications of phosphorus are restricted to no more than what the crop can remove (one times) in order to stop further soil test phosphorus build-up. At 180 ppm Olsen P, no additional phosphorus may be applied.

It should be noted that soil-test phosphorus levels of 60 ppm Olsen P or greater are agronomically very high and at these levels most crops will not benefit from additional phosphorus beyond starter phosphorus. As phosphorus levels build up in soils, the concentration of phosphorus in runoff increases.

Therefore, to remain environmentally sustainable over a long-term planning horizon of 25 years or more, phosphorus applications from applied manure and other nutrient sources such as commercial fertilizers must be balanced with crop removal to avoid further build-up in soils. Consequently, sufficient land must be available in relatively close proximity to the operation to balance phosphorus applications with crop phosphorus removals (one times) so that manure treatment and export of phosphorus from the region is not required.

☒ I acknowledge that up to 2493 acres _____ acres/hectares (one times crop removal from table above) may be required for the long term environmental sustainability of the operation.

## 10.0 Mortalities (Dead Animal) Disposal

The Livestock Manure and Mortalities Management Regulation sets requirements for the use, management and storage of livestock mortalities in agricultural operations. It helps ensure livestock mortalities are handled in an environmentally sound manner. Winter application of composted mortalities is prohibited.

Type of disposal:
- ☐ rendering
- ☒ composting
- ☐ incineration (in approved incinerator only)

**Mass Mortalities**

☐ A plan for mass mortalities is in place.

What steps will be taken in the case of mass mortalities?

As part of the development of the site and start up of production, options including large scale composting, hauling to landfill and rendering will be compared, and a mass mortality plan will be prepared.

## 11.0 Project Site Description: Land Use Planning Considerations

For assistance contact your Community and Regional Planning Regional Office.

**Development Plan and Zoning Bylaw**

The Planning District or Municipal Development Plan and Zoning By-law adopted under *The Planning Act*, set policy and regulations for the use and development of land. A proposed livestock operation must comply with the requirements of this bylaw. In the absence of a By-law, the Provincial Planning Regulation under *The Planning Act* applies.

**Development Plan**

Every Development Plan must contain a livestock operation policy (LOP) that identifies areas where new or expanded livestock operations may be allowed. It must also set general standards for the location and setback of livestock operations. Identifying the Development Plan's land use designation and policies (for the planning district or municipality that affect the site) will help confirm the project site's compliance. The Development Plan designations for the spread fields (if something other than agricultural) will indicate the potential loss of the fields in the future due to possible development.

| | |
|---|---|
| Name of Planning District | N/A |
| Development Plan by-law number | 81/2008 |
| Land use designation of project site | Agriculture 1 |
| Livestock operation policies – quote supportive policy numbers | 3.3.1.1b.ii |
| Other Development Plan policies – quote supportive policy numbers | 3.3.1.2 and 3.3.1.3 |
| Non-supportive Development Plan policies | |

☒ The Development Plan livestock operation policies support the size and location of the proposed operation.

☒ The Development Plan designations support the long term use of the proposed spread fields.

**Zoning By-law**

Identifying the zoning for the project site, the proposed spread fields and the related zoning provisions, helps determine the project's compliance and the minimum separation distances needed between the operation and property boundaries and other natural features and land uses. The zoning bylaw contains specific regulations that govern location and setback of livestock operations.

What are the minimum project site requirements stated in the Zoning By-law?

| | Project site dimensions | Minimum zoning bylaw site requirements |
|---|---|---|
| Minimum site area | 138 ac | 80 ac |
| Minimum site width | 2640 ft | 600 ft |
| Minimum front yard | 438 ft | 330 ft |
| Minimum side and rear yard | 605 ft & 2940 ft; 300ft to half mile line b/w 2 south quarters of 28-3-8E, Canada Sheep & Lamb owns SW28-3-8E & SE28-3-8E | 330 ft |

If any project (front, side or rear) yard site dimensions are less than the Zoning By-law minimum, a Variation Order from the Municipality will be required.

**Separation Distances (Zoning Bylaw or Provincial Planning Regulation)**
Using the proposed size of the operation (see Animal Units Calculation Table) and the type of animal housing and manure storage facility, complete the following table.

Indicate the distance from:

a. earthen manure storage facility or b. feedlot and
c. animal confinement facility or d. non-earthen manure storage facility…

| …to the following land use features (if applicable) | Indicate minimum separation distance required in the zoning bylaw or Provincial Planning Regulation (Check appropriate box(es) | | If land use feature is less than the minimum separation distance | |
|---|---|---|---|---|
| | ☐ a. ☐ b. | ☒ c. ☐ d. | Provide actual distance | Provide location or name of feature (e.g. Red River) |
| Residence/ dwelling | | 1180 ft | Approx 700 ft | Residence @ NW corner of property |
| Designated area (non-agricultural) | 6300 ft | | Approx. 3.9 mi. | Zhoda |
| Surface water | 328 ft | | 905 ft | Roadside ditch |
| Surface watercourse | 328 ft | | approx 3695 ft | Rat River |
| Crown land | n/a | n/a | 784 ft | NE21-3-8E |
| Wildlife Management Area | n/a | n/a | approx 2.34 mi | Watson P. Davidson WMA |
| Livestock operation | n/a | n/a | approx. 1115 ft | Cattle op. on NW28-3-8E |
| Other significant features/land uses | n/a | n/a | approx. 778 ft | Zhoda International Raceway (private motocross circuit) |

If Crown Lands are located within one mile, provide coding. Information can be obtained from the Interdepartmental Operations Crown Lands Plans through the Manitoba Legislative Library or contact Manitoba Conservation and Water Stewardship at (204) 619-2230.

If undesignated Crown Lands will be used for manure spreading purposes, including the laying of pipe or clearing activity, and use will require a Crown Lands General Permit disposition for the use and access of the subject Crown Lands Parcel(s). ?

In cases where minimum separation distances are not stated in the Zoning By-law or Development Plan, the minimum separation distances in the Provincial Planning Regulation apply.

Note: If any separation distance is less than the zoning by-law minimum, a Variation Order will be required from the Municipality.

**Setback Distances (Livestock Manure and Mortalities Management Regulation)**
Using the following table to indicate the distance from:

| Feature | Structure | Minimum setback distance required | Provide actual distance (m) | Provide location or name of feature (e.g. Red River) |
|---|---|---|---|---|
| Surface watercourse, sinkhole, spring, or well | Manure storage facility | 100 m | | |
| | Field storage | 100 m | > 100 m | Various field locations |
| | Composing site | 100 m | 491 m | WEST DITCH |
| | Confined livestock area | 100 m | 276 m | Roadside ditch |
| Property Line | Manure storage facility | 100 m | | n/a |
| | Composing site | 100 m | 193m | SOUTH PROP. LINE |
| | Confined livestock area | 100 m | 177 m | NW28-3-8E |

**If any setback distances have not been met, please provide explanation below:**

_____

_____

_____

Show: a) location of the project site, location and ownership of spread fields and b) land uses and significant features including dwellings (i) within a 1 mile radius of the project site and (ii) within and adjacent to each spread field on a Land Use & Spread Field Map. (See Land Use & Spread Field Map Example).

## 12.0 Truck Haul Routes and Access Points

One consideration with new or expanding livestock operations is the potential impact on existing public roads (municipal and provincial), access and the need for improvements or mitigation. Complete the following table.

| Vehicle Type | Estimated Average Number of times per day accessing | | Access from PTH/PR onto site will mainly require a Left or Right Hand Turn Please check one | | | | Access onto PTH/PR from site will mainly require a Left or Right Hand Turn Please check one | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Provincial Trunk Highway (PTH) | Provincial Road (PR) | Provincial Trunk Highway (PTH) | | Provincial Road (PR) | | Provincial Trunk Highway (PTH) | | Provincial Road (PR) | |
| | | | LEFT | RIGHT | LEFT | RIGHT | LEFT | RIGHT | LEFT | RIGHT |
| Truck or passenger | 10 | 6 | | X | | X | X | | X | |
| Tractor Trailer | 4 | 1 | | X | | X | X | | X | |
| Other – Specify Farm machinery | 1 | 2 | | X | X | | X | | | X |

Identify what roads and access points will be used for the proposed operation? (See Truck Haul Routes and Access Points Map for an example).

For help with mapping, contact your Community and Regional Planning Regional Office.

☒ Truck Haul Routes and Access Points Map attached

## 13.0 Conservation Data Centre Report

A Conservation Data Centre Report must be requested and the response attached to this site assessment. The request may be submitted electronically at:
www.gov.mb.ca/conservation/cdc

Were rare species identified in the Conservation Data Centre Report?

☐ Yes
☒ No

## 14.0 Supporting Documents

Check off the supporting documents included in this submission:

- [X] Contact Information and Privacy and Publication Notice
- [X] Location Map (shows proposed project within rural municipality)
- [X] Animal Units Calculation Table
- [X] Water Requirement Calculation Table
- [X] Manure Production Calculator Table
- N/A [ ] Existing and Proposed Manure Storage Facility Dimensions Tables (if applicable)
- [X] Manure Application Field Characteristics Table
- [X] Crop Rotation Table
- [X] Recent manure application field soil sample results (Nitrate- N lb/ac at 0-6 and 6-24 inch depths, Phosphorus – ppm at 0-6 inch depth)
- [X] Land Base Calculator
- [X] Project Site Plan (proposed operation showing current and proposed structures)
- [X] Land Use and Spread Field Map (location and ownership of operation, spread fields, location and distance to non-agricultural uses, development plan designation, zoning for project site and spread fields)
- [X] Truck Haul Routes and Access Points Map (with routes and access points on municipal/provincial roads and/or provincial trunk highways)
- [X] Response from the Conservation Data Centre
- [ ] Other, please specify:

_____

_____

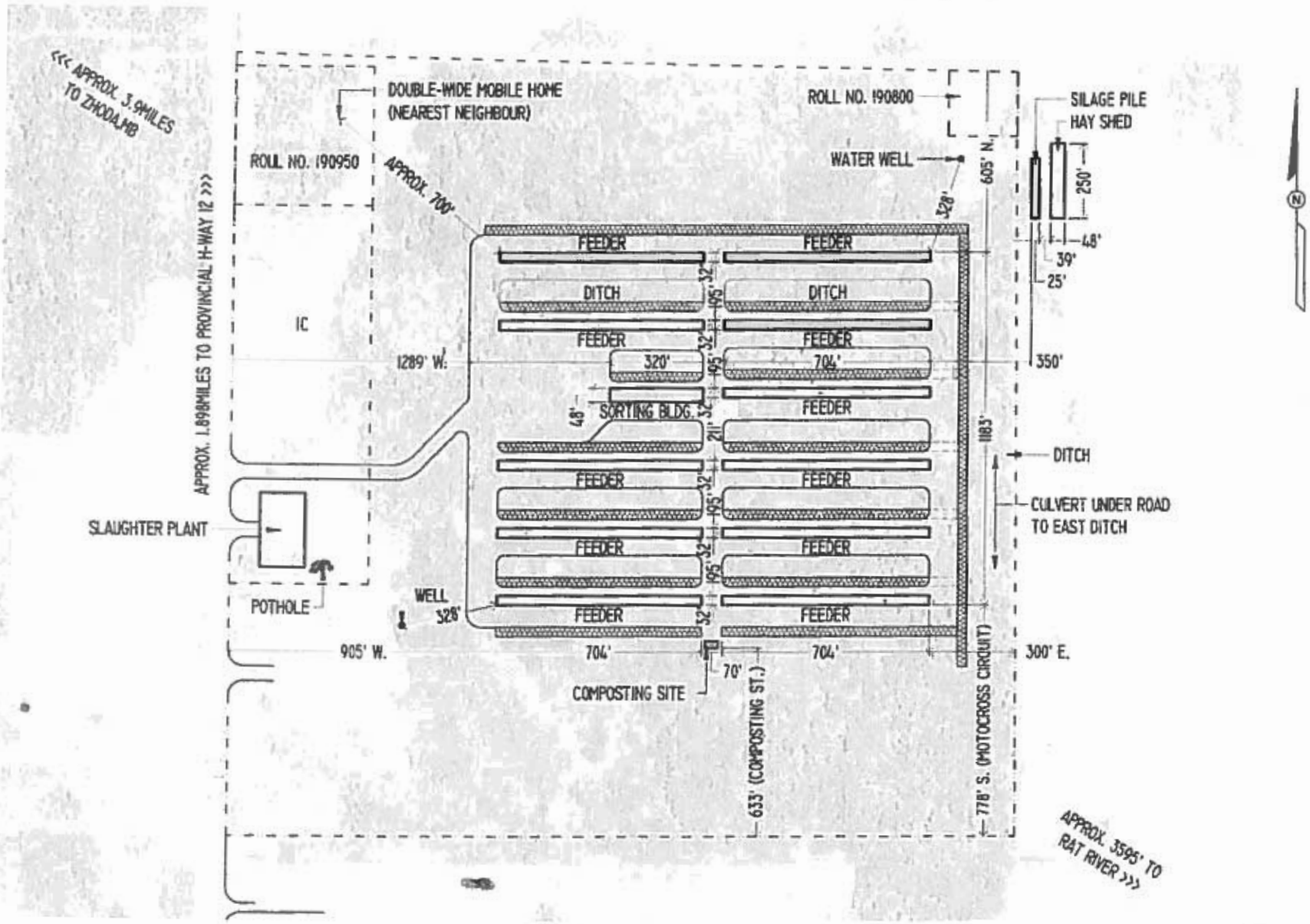
_____

## 15.0 Declaration

I do hereby verify that the information contained in the Site Assessment and all required Supporting Documents is accurate and complete to my knowledge

Date: January 20/16

Signature: _____




South-Man Engineering

| | |
|---|---|
| PROJECT NAME: CANADA SHEEP & LAMB | BUILDING AREA: N/A |
| SHEET TITLE: SITE DEVELOPMENT PLAN | DRAWN BY: R. FLORES, SOUTH-MAN ENGINEERING |
| DATE DRAWN: OCTOBER 2015 | DRAWING SCALE: N.T.S. |
| | SHEET NUMBER: SP |

No. 145

# R.M. OF STUARTBURN

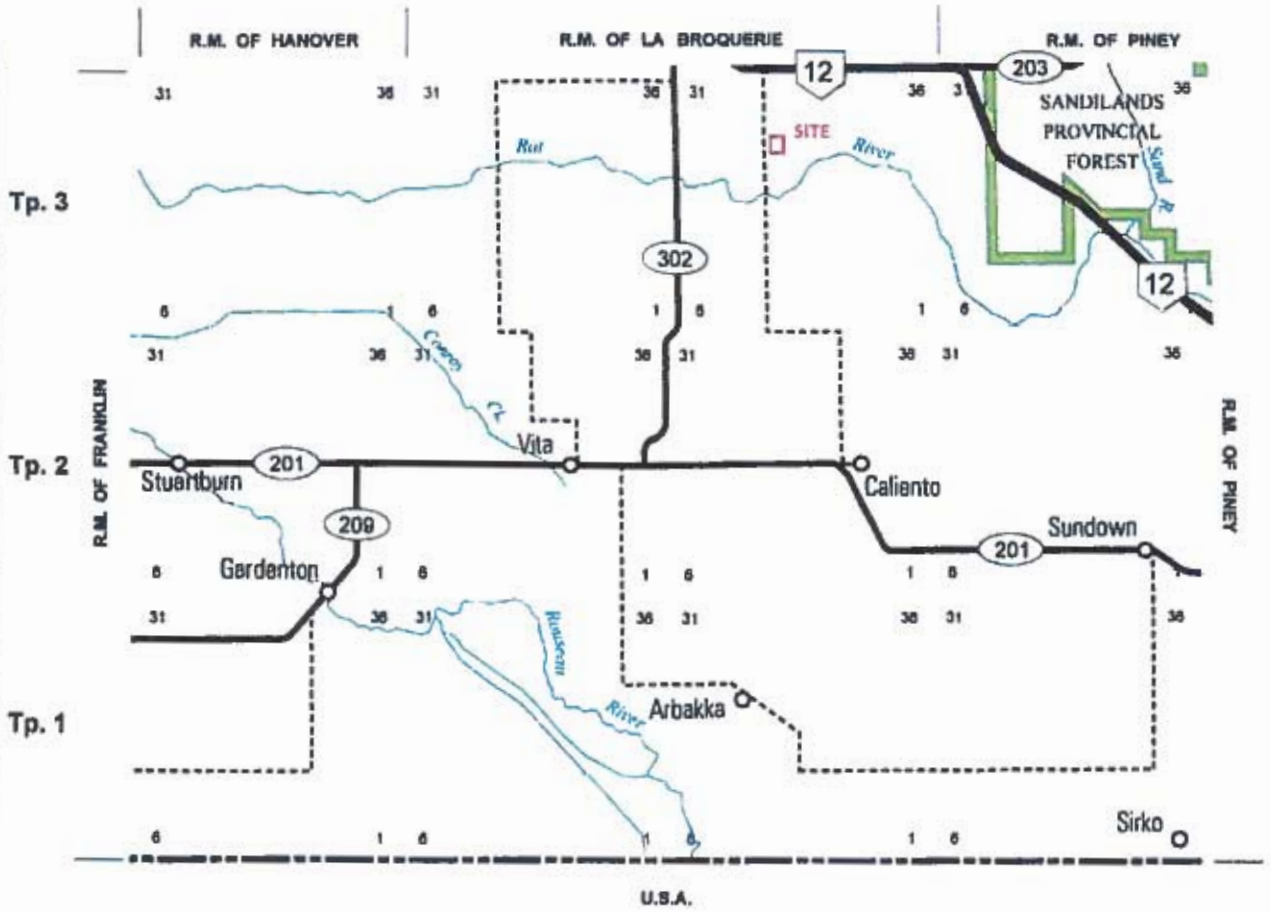
MAP REVISED:-

MANITOBA
TRANSPORTATION AND GOVERNMENT SERVICES
HIGHWAY PLANNING AND DESIGN BRANCH
DRAFTING SECTION
WINNIPEG
DECEMBER, 2003

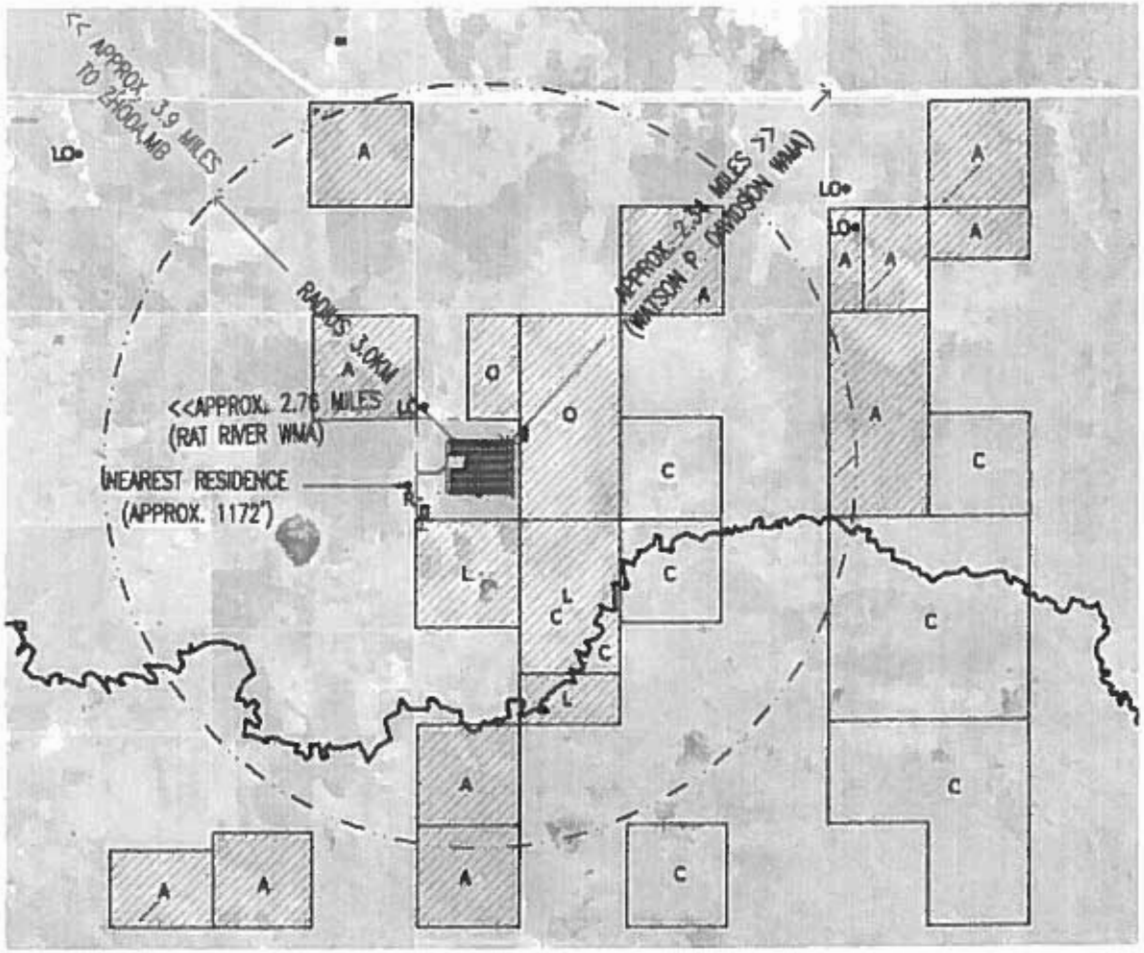
0 5
SCALE IN KILOMETRES

LEGEND

PROVINCIAL TRUNK HIGHWAYS 12
PROVINCIAL ROADS 201
ACCESS ROADS
MAIN MARKET ROADS




Rge. 6E. Rge. 7E. Rge. 8E. Rge. 9E.



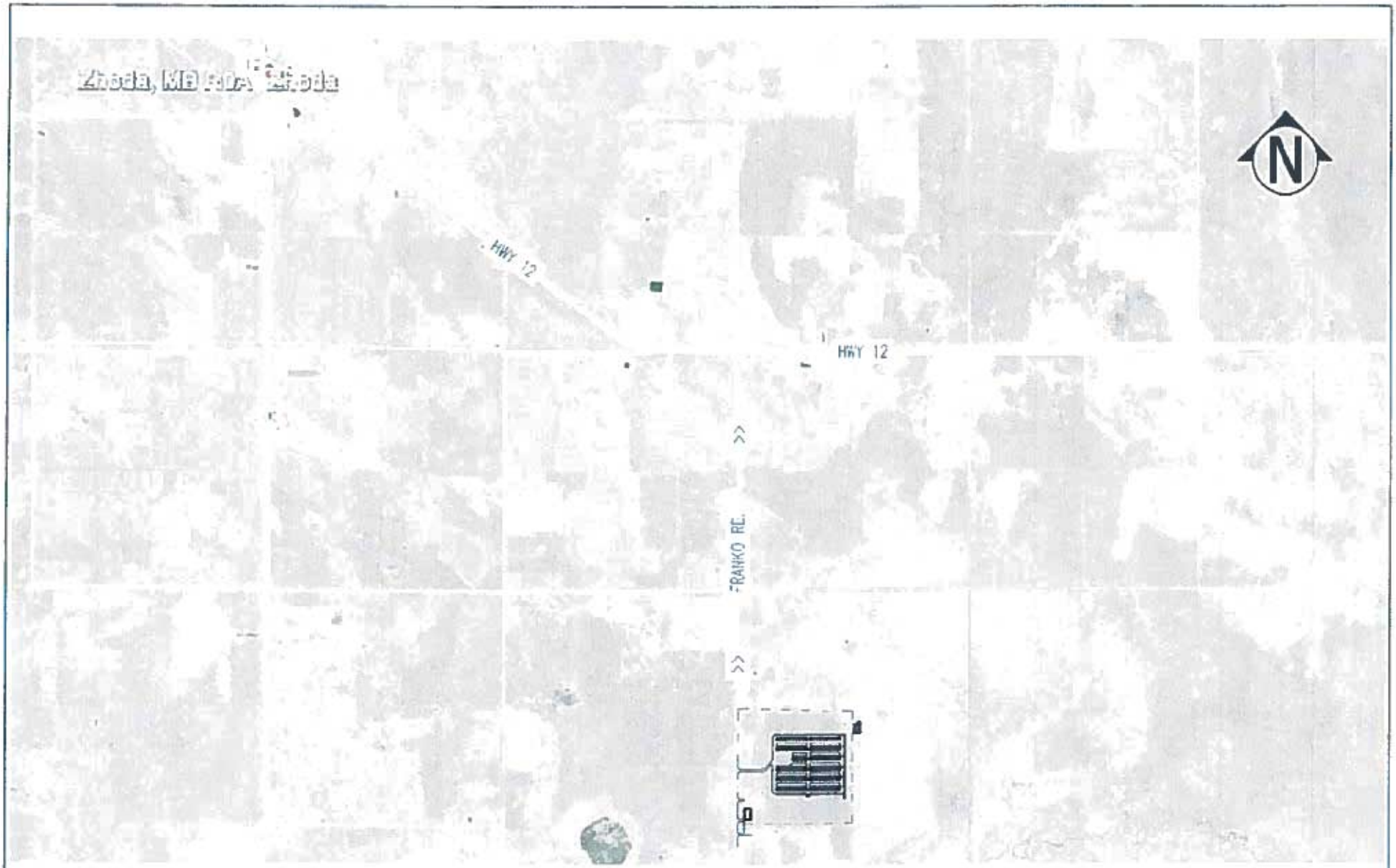

N

LEGEND:

- LO- LIVESTOCK OPERATIONS
- O- SPREAD FIELDS (OWNED)
- A- SPREAD FIELDS (AGREEMENT)
- L- SPREAD FIELDS (LEASE)
- R- RESIDENCE
- C- CROWN
- ——— 3km NOTIFICATION AREA FOR THE PUBLIC CONDITIONAL USE HEARING

South-Man Engineering

| | |
|---|---|
| PROJECT NAME: CANADA SHEEP & LAMB | BUILDING AREA: N/A |
| SHEET TITLE: LAND USE & SPREAD FIELD MAP | DRAWN BY: P.FERRER/R. FLORES SOUTH-MAN ENGINEERING |
| DATE DRAWN: JANUARY 2016 | DRAWING SCALE: N.T.S. |
| | SHEET NUMBER: SP-2 |




South-Man Engineering

| | |
|---|---|
| PROJECT NAME: CANADA SHEEP & LAMB | BUILDING AREA: N/A |
| SHEET TITLE: TRUCK HAUL ROUTE | DRAWN BY: P.FERRER SOUTH-MAN ENGINEERING |
| DATE DRAWN: JUNE 2015 | DRAWING SCALE: N.T.S. |
| SHEET NUMBER: SP-3 | |

# Animal Units Calculation Table

| A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|
| Animal Type | Type of Operation | Existing Number of Animals | Proposed Additional Number of Animals | Animal Units per Head | Total Animal Units | Annual Confinement Period (Days) |
| Dairy [1] | Mature cows (lactating and dry) including associated livestock | | | 2 | - | |
| | Mature cows (lactating and dry) | | | 1.35 | - | |
| | Heifers (0 to 3 months) | | | 0.16 | - | |
| | Heifers (4 to 13 months) | | | 0.41 | - | |
| | Heifers (> 13 months) | | | 0.87 | - | |
| | Bulls | | | 1.35 | - | |
| | Veal calves | | | 0.13 | - | |
| Beef | Beef cows including associated livestock | | | 1.25 | - | |
| | Backgrounder | | | 0.5 | - | |
| | Summer pasture / replacement heifers | | | 0.625 | - | |
| | Feeder cattle | | | 0.769 | - | |
| Pigs | Sows - farrow to finish (234-254 lbs) | | | 1.25 | - | |
| | Sows - farrow to weanling (up to 11 lbs) | | | 0.25 | - | |
| | Sows - farrow to nursery (51 lbs) | | | 0.313 | - | |
| | Boars (artificial insemination units) | | | 0.2 | - | |
| | Weanlings, Nursery (11-51 lbs) | | | 0.033 | | |
| | Growers / Finishers (51-249 lbs) | | | 0.143 | - | |
| Chickens | Broilers | | | 0.005 | - | |
| | Roasters | | | 0.01 | - | |
| | Layers | | | 0.0083 | - | |
| | Pullets | | | 0.0033 | - | |
| | Broiler breeder pullets | | | 0.0033 | - | |
| | Broiler breeder hens | | | 0.01 | - | |
| Turkeys | Broilers | | | 0.01 | - | |
| | Heavy Toms | | | 0.02 | - | |
| | Heavy Hens | | | 0.01 | - | |
| Horses | Mares | | | 1.333 | - | |
| Sheep | Ewes | | | 0.2 | - | |
| | Feeder lambs | - | 15,000 | 0.063 | 945.00 | |
| Other Livestock | Type: | | | | - | |
| | Type: | | | | - | |
| | | | | Total AUs | 945.00 | |

**Footnotes:**

[1] There are 2 methods for calculating animal units for dairy (Farm Practices Guidelines for Dairy Producers in Manitoba, 1995). You can enter the total number of mature cows in the milking herd under the "Mature cows (lactating and dry) including associated livestock" category and the animal units will be calculated by multiplying this number by 2. This calculation assumes 85 lactating, 15 dry, 12 heifers (0 to 3 months), 36 heifers (4 to 13 months) and 50 heifers (> 13 months) for an operation with 100 mature cows. "Associated livestock" includes all of the heifer calves and replacement heifers. Alternatively, you can enter animal numbers in the individual categories (mature cows, heifers (0 to 3 months), heifers (4 to 13 months) and heifers (> 13 months)) and they will be summed at the bottom of the table. Bulls and veal calves are always calculated separately.

**For all other livestock or operation types please inquire with your**
Manitoba Agriculture, Food and Rural Initiatives GO office to determine the animal units per head.
www.gov.mb.ca/agriculture/contact/agoffices.html

# Water Requirement Calculation Table

| Livestock | Number | IG/day per animal in winter | IG/day per animal in summer | IG/day (Imperial gallons per day) |
|---|---|---|---|---|
| Beef/Dairy/Bison | | | | |
| Feeder/heifer/steer (600 lb.) | | 5 | 9 | - |
| Feeder (900 lb.) | | 7 | 12 | - |
| Feeder (1250 lb.) | | 10 | 15 | - |
| Cow/calf pair | | 12 | 15 | - |
| Dry cow | | 10 | 12 | - |
| Milking cow | | 25 | 30 | - |
| Bison | | 8 | 10 | - |
| Horses | | | | |
| Horses | | 8 | 11 | - |
| Hogs | | | | |
| Sow (Farrow/wean) | | 6.5 | | - |
| Dry Sow/Boar | | 4 | | - |
| Feeder | | 3 | | - |
| Nursery (33 lb.) | | 2 | | - |
| Chickens | | | | |
| Broilers | | 0.035 | | - |
| Roasters/Pullets | | 0.04 | | - |
| Layers | | 0.055 | | - |
| Breeders | | 0.07 | | - |
| Turkeys | | | | |
| Turkey Growers | | 0.13 | | - |
| Turkey Heavies | | 0.16 | | - |
| Sheep/Goats | | | | |
| Sheep/Goats | | 2 | | - |
| Ewes/Does | | 3 | | |
| Lambs/Kids (90 lb.) | 15000 | 1.6 | | 24000 |
| | | TOTAL (IG/day) | | 24000 |

For beef, dairy, bison and horse enterprises:

Use summer numbers if appropriate for the operation.

Otherwise base projections on winter values.

Always use the greater of the two values.

Enter this number on page 7 of Application Form.

**Other consumption values:**

Normal household consumption:
40-55 IG/day per person or
(180-250 l/day/person)

Hydrant flow:
10 imperial GPM (45 l/min)

| Unit Conversions | | |
|---|---|---|
| Total per day | Total per year | Unit |
| 24000 | 8760000 | IG |
| 109104 | 39822960 | litres |
| 109.104 | 39822.96 | cubic decametres ($dam^3$) |

Enter this number on page 7 of Application Form.

*Conversion Factor: 1 IGPM = 4.546 l/m*

| Animal Type (A) | Animal Sub-type (B) | Daily Manure Production | | | | Production Period [1] (Days) (G) | Number of Animals [2] (Capacity) (H) | Total Manure Volume ($ft^3$) (FxGxH) | Total Manure Volume for Semi-Solid and Liquid Manure (Imp Gal) |
|---|---|---|---|---|---|---|---|---|---|
| | | References (C) | Manure Type (D) | Default Manure Production ($ft^3$/animal/day) (E) | Operation Manure Production [1] ($ft^3$/animal/day) (F) | | | | |
| Dairy (milking cows[4] and associated livestock) | Free Stall | Table 6, pg 59, FPGs for Dairy 1995 | Semi-Solid [5] | 3.5 | | | | - | 0.0 |
| | | | Solid | 3.4 | | | | - | |
| | | | Liquid [5] | 3.5 | | | | - | 0.0 |
| | Tie Stall | | Semi-Solid [5] | 3.6 | | | | - | 0.0 |
| | | | Solid | 3.5 | | | | - | |
| | | | Liquid [6] | 3.6 | | | | - | 0.0 |
| | Loose Housing | | Solid | 3.0 | | | | - | |
| | Milking Parlour Manure and Washwater | | Liquid | 0.5 | | | | | |
| Beef | Beef cows including associated livestock | pg 117, FPGs for Hogs 1998 | Solid | 1.2 | | | | - | |
| | Backgrounder (200 day) | | Solid | 0.73 | | | | - | |
| | Summer pasture / replacement heifers | | Solid | 0.85 | | | | - | |
| | Feeder cattle | | Solid | 1.1 | | | | - | |
| Pigs | Sows - farrow to finish (234 - 254 lbs) | MAFRI website, FPGs for Pigs 2007 | Liquid | 2.3 | | | | - | 0.0 |
| | Sows - farrow to wean (up to 11 lbs) | | Liquid | 0.8 | | | | - | 0.0 |
| | Sows - farrow to nursery (51 lbs) | | Liquid | 1 | | | | - | 0.0 |
| | Weanlings, Nursery (11 - 51 lbs) | | Liquid | 0.1 | | | | - | 0.0 |
| | Grower / Finisher (51 - 249 lbs) | | Liquid | 0.25 | | | | - | 0.0 |

| Animal Type | Type of Operation | | Yearly Manure Production | | Production Period [2] (Days) | Number of Birds [3] (Capacity) | Total Manure Volume ($ft^3$) (F/365xGxH) | Total Manure Volume for Semi-Solid and Liquid Manure (Imp Gal) |
|---|---|---|---|---|---|---|---|---|
| | | | Default Manure Production ($ft^3$/year/bird space) | Operation Manure Production [1] ($ft^3$/year/bird space) | | | | |
| Chickens | Broilers – floor [6] | Table 3, pg 85, FPGs for Poultry 2000 | 1.23 | | | | | |
| | Broiler breeder hens [7] | | 2.3 | | | | | |
| | Broiler breeder pullets [8] | | 0.99 | | | | | |
| | Roosters – floor [6] | | 1.16 | | | | | |
| | Layers – cage [9] | | 2.33 | | | | | |
| | Layers – floor [7] | | 1.68 | | | | | |
| | Layers – solid pack [9] | | | | | | | |
| | Pullets – cage [9] | | 0.71 | | | | | |
| | Pullets – floor [6] | | 0.75 | | | | | |
| | Pullets – solid pack [9] | | | | | | | |
| Turkeys | Broilers [6] | Table 3, pg 85, FPGs for Poultry 2000 | 2.83 | | | | | |
| | Heavy toms [6] | | 5.58 | | | | | |
| | Heavy hens [6] | | 3.32 | | | | | |

**Manure production for feeder lambs**

| # lambs | Avg weight | Unit Manure* Production | Daily Manure Production | Feedlot Occupancy | Yearly production | |
|---|---|---|---|---|---|---|
| | *lbs* | $\frac{lbs}{day \cdot 1000_{lbs\ live\ wt}}$ | *lbs* | *days* | *lbs/yr* | *t/yr* |
| 15000 | 73 | 40 | 43800 | 365 | 15987000 | 7994 |

* from: Nutrient management on sheep farms, http://www.sheep101.info/201/nutrientmgt.html

**Sizing of a manure storage facility in accordance with all requirements of the *Livestock Manure and Mortalities Management Regulation* (M.R. 42/98) is the responsibility of the operator.**

**Instructions and footnotes:**

[1] ENTER the manure production estimate for your operation. If no estimate is available, use the default value provided in colum E. References for default daily and yearly manure production are provided in column C.

[2] ENTER the number of days worth of manure that will be produced. For earthen manure storage facilities the minimum storage requirement is 400 days. For steel and concrete manure storage facilities the minimum storage requirement is 250

[3] ENTER the total number of animals or birds that the operation can hold (e.g. barn or feedlot capacity).

[4] Milking cows includes all lactating and dry cows.

[5] Default manure production estimates for semi-solid and liquid dairy manure include manure and washwater from the milking parlour.

[6] 2 inches of wood shavings or 4 inches of straw placed on floor. Manure and litter removed from barn at 25% moisture content, with a density of 20 lb/$ft^3$

[7] One-third litter floor, two-thirds slatted floor. Manure and litter removed from barn at 40% moisture content, with a density of 25 lb/$ft^3$

[8] Manure removed from barn at 90% moisture content with a density of 59 lb/$ft^3$

[9] Poultry operations using litter (solid pack) must provide an estimate of yearly manure production

## MANURE APPLICATION FIELD CHARACTERISTICS TABLE

| | A | B | C | D | E | F | G | H | I | J | K |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Field | Legal Description | Rural Municipality | O/L/A | Total Acreage | Setbacks, including features | Net Acreage for Manure Application | Agriculture Capability Class and Subclass | Soil Nitrate (lb/acre) 0-24 inches | Soil Phosphorus (ppm Olsen P) 0-6 inches | Development Plan Designation | Zoning |
| 1 | NE 28-3-8E | Stuartburn | O | 161 | Prop. lines, Water, cl 6, O | 18 | 4M5M | 18 | 10 | DP81/2008: LD | ZBL98/2011: LD |
| 2 | E½-NW 28-3-8E | Stuartburn | O | 78.5 | Prop lines, cl 6 soil | 57 | 4M5M | 5 | 25 | DP81/2008: A1 | ZBL98/2011: A1 |
| 3 | SE 28-3-8E | Stuartburn | O | 160.5 | Prop lines, cl 6 O soils | 103 | 4M | 6 | 16 | DP81/2008: LD | ZBL98/2011: LD |
| 4 | SW 28-3-8E | Stuartburn | O | 153 | Prop lines, future feedlot | 80 | 4M | 7 | 14 | DP81/2008: A1 | ZBL98/2011: A1 |
| 5 | N½-SE35-3-8E | Stuartburn | A | 80 | Prop. lines, cl 6 | 12 | 4M | 5 | 4 | DP81/2008: A1 | ZBL98/2011: A1 |
| 6 | NW26-3-8E | Stuartburn | A | 160 | Prop. lines, cl 6 soil | 69 | 4M | 20 | 5 | DP81/2008: A1/LD | ZBL98/2011: A1 / LD |
| 7 | SW26-3-8E | Stuartburn | A | 160 | Prop. lines, water, cl 6 | 3 | 3MI | 2 | 7 | DP81/2008: LD | ZBL98/2011: LD |
| 8 | SW35-3-8E | Stuartburn | A | 160 | Prop lines, cl 6 | 110 | 4M | 2 | 5 | DP81/2008: A1 | ZBL98/2011: A1 |
| 9 | NE21-3-8E | Stuartburn | L | 160 | Prop lines, surf water, bush | 85 | 4M3MI | 2 | 13 | DP81/2008: LD | ZBL98/2011: LD |
| 10 | SE21-3-8E | Stuartburn | L | 80 | Prop lines, bush | 32 | 4M3MI | 2 | 19 | DP81/2008: LD | ZBL98/2011: LD |
| 11 | NW21-3-8E | Stuartburn | L | 160 | Prop lines, surf water, cl 6 | 105 | 4M | 11 | 23 | DP81/2008: A1 | ZBL98/2011: A1 |
| 12 | SE32-3-8E | Stuartburn | A | 80 | Prop lines, surf water, cl 6 | 49 | 4M | 13 | 2.2 | DP81/2008: A1 | ZBL98/2011: A1 |
| 13 | NE32-3-8E | Stuartburn | A | 160 | Property lines, surf water | 155 | 4M5W | 6 | 13 | DP81/2008: A1 | ZBL98/2011: A1 |
| 14 | NE29-3-8E | Stuartburn | A | 160 | Prop lines, surf water, cl 6 | 112 | 5W4M | 7 | 6 | DP81/2008: A1 | ZBL98/2011: A1 |
| 15 | SE18-3-8E | Stuartburn | A | 120 | Prop lines, surf. Water | 100 | 3M2MP | 13 | 3 | DP81/2008: A1 | ZBL98/2011: A1 |
| 16 | SW17-3-8E | Stuartburn | A | 160 | Prop lines, surf. Water | 155 | 2MP5W3M | 6 | 6 | DP81/2008: A1 | ZBL98/2011: A1 |
| 17 | SW36-2-10E | Piney | A | 147 | Prop. lines, Water, O soils | 45 | 2MP | 18 | 5 | Piney DP 81/2008: [illegible] | Piney ZBL98/2012: [illegible] |
| 18 | SW34-3-8E | Stuartburn | A | 160 | Prop lines, surf water, O soils | 146 | 5W4M | 8 | 4 | DP81/2008: A1 | ZBL98/2011: A1 |
| 19 | NE 35-3-8E | Stuartburn | A | 160 | Prop lines, surf water, cl 6 | 38 | 4M | 6 | 8 | DP81/2008: A1 | ZBL98/2011: A1 |
| 20 | NE20-1-8E | Stuartburn | A | 160 | Prop lines | 155 | 3M5W3P | 5 | 15 | DP81/2008: A1 | ZBL98/2011: A1 |
| | | | | | **Total Net Acreage for Manure Application:** | 1629 | | | | | |

A. Enter the legal description for each parcel of land that will receive manure: Sec, Twp, Rge or River Lot (including parish).
B. Identify the Rural Municipality in which the parcel is located.
C. Indicate how the land has been secured for manure application: O – Own / L – Lease / A – Agreement
D. Enter the total acreage for the parcel.
E. Enter setbacks from surface water or groundwater features that reduce the land available for manure application; include identification of type of feature (e.g. 8m, Order 3 drain).
F. Enter the net long-term acreage available for manure application for the parcel after taking into account setbacks and excluding Class 6, 7 and unimproved organic soils.
G. Enter the agriculture capability class and subclass ratings for the acreage available for manure application.
H. Provide soil test results for nitrate-N in lb/ac at the 0-24 inch depth. Soil test results must be no more than 12 months old and must be completed by an accredited soil-testing
I. Provide soil test results for phosphorus ppm Olsen P at 0-6 inch depth. Soil test results must be no more than 12 months old and must be completed by an accredited soil-testing
J. Please indicate the Development Plan and its by-law number in addition to the map designation for each field
K. Please indicate the Zoning By-law and its by-law number in addition to the zoning for each field

## MANURE APPLICATION FIELD CHARACTERISTICS TABLE

| | A | B | C | D | E | F | G | H | I | J | K |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Field | Legal Description | Rural Municipality | O/L/A | Total Acreage | Setbacks, including features | Net Acreage for Manure Application | Agriculture Capability Class and Subclass | Soil Nitrate (lb/acre) 0-24 inches | Soil Phosphorus (ppm Olsen P) 0-6 inches | Development Plan Designation | Zoning |
| 1 | SW20-1-8E | Stuartburn | A | 160 | Prop lines | 155 | 5W3M | 7 | 13 | DP81/2008: LD | ZBL98/2011: LD |
| 2 | SE20-1-8E | Stuartburn | A | 160 | Prop lines | 130 | 5W3M | 5 | 7 | DP81/2008: A1 | ZBL98/2011: A1 |
| 3 | SW6-1-8E | Stuartburn | A | 160 | Prop lines | 143 | 5W3MI | 8 | 6 | DP81/2008: LD | ZBL98/2011: LD |
| 4 | | | | | | | | | | | |
| 5 | | | | | | | | | | | |
| 6 | | | | | | | | | | | |
| 7 | | | | | | | | | | | |
| 8 | | | | | | | | | | | |
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| 14 | | | | | | | | | | | |
| 15 | | | | | | | | | | | |
| 16 | | | | | | | | | | | |
| 17 | | | | | | | | | | | |
| 18 | | | | | | | | | | | |
| 19 | | | | | | | | | | | |
| 20 | | | | | | | | | | | |
| | | | | | Total Net Acreage for Manure Application: | 428 | | | | | |

A. Enter the legal description for each parcel of land that will receive manure: Sec, Twp, Rge or River Lot (including parish).
B. Identify the Rural Municipality in which the parcel is located.
C. Indicate how the land has been secured for manure application: O – Own / L – Lease / A – Agreement
D. Enter the total acreage for the parcel.
E. Enter setbacks from surface water or groundwater features that reduce the land available for manure application; include identification of type of feature (e.g. 8m, Order 3 drain).
F. Enter the net long-term acreage available for manure application for the parcel after taking into account setbacks and excluding Class 6, 7 and unimproved organic soils.
G. Enter the agriculture capability class and subclass ratings for the acreage available for manure application.
H. Provide soil test results for nitrate-N in lb/ac at the 0-24 inch depth. Soil test results must be no more than 12 months old and must be completed by an accredited soil-testing
I. Provide soil test results for phosphorus ppm Olsen P at 0-6 inch depth. Soil test results must be no more than 12 months old and must be completed by an accredited soil-testing
J. Please indicate the Development Plan and its by-law number in addition to the map designation for each field
K. Please indicate the Zoning By-law and its by-law number in addition to the zoning for each field

| Nutrients Excreted | lbs |
|---|---|
| Nitrogen | 106880 |
| P2O5 | 63732 |
| | |
| **Crop Nutrient Use** | **lb/ac** |
| Nitrogen Uptake | 94.6 |
| P2O5 Removal | 25.6 |
| | |
| **Land Base Requirements** | **acres** |
| Acres Available | 1436 |
| Acres for Nitrogen Uptake | 1130 |
| Acres for 2 x P2O5 Removal | 1247 |
| Acres for 1 x P2O5 Removal | 2493 |

| Sheep/Operation Type | Storage Type | Volatilization | Animal Numbers | Weight In lb | Weight Out lb | Ave Weight lb | Days on Feed | Cycles per Year | N Excreted per Flock adjusted for Loss lb/flock/yr | P2O5 Excreted Per Flock lb/flock/yr |
|---|---|---|---|---|---|---|---|---|---|---|
| Ewes | Field Storage | 40% | 0 | 120 | 170 | 145 | 365 | 1 | 0 | 0 |
| Replacement Ewes | Field Storage | 40% | 0 | 45 | 80 | 63 | 210 | 1 | 0 | 0 |
| Rams | Field Storage | 40% | 0 | 100 | 200 | 150 | 365 | 1 | 0 | 0 |
| Lambs | Field Storage | 40% | 0 | 8 | 45 | 27 | 70 | 1.4 | 0 | 0 |
| Ewes, plus assoc livestock | Field Storage | 40% | 0 | na | na | na | na | na | 0 | 0 |
| Feeder | Compost | 40% | 15000 | 45 | 100 | 73 | 91 | 4 | 106880 | 63732 |

| Crop | Removal P2O5 | Removal N | Uptake N | Units | Yield | Units | Acreage | Removal P2O5 (lb) | Removal N (lb) | Uptake N (lb) |
|---|---|---|---|---|---|---|---|---|---|---|
| Alfalfa | 13.8 | 58 | 58 | lb/ton | 2.159 | ton/ac | 452 | 13467 | 56600 | 56600 |
| Barley Grain | 0.42 | 0.97 | 1.39 | lb/bu | | bu/ac | | - | - | - |
| Barley Silage | 11.8 | 34.4 | 34.4 | lb/ton | | ton/ac | | - | - | - |
| Canola | 1.04 | 1.93 | 3.19 | lb/bu | | bu/ac | | - | - | - |
| Corn Grain | 0.44 | 0.97 | 1.53 | lb/bu | 87.6 | bu/ac | 84 | 3238 | 7138 | 11258 |
| Corn Silage | 12.7 | 31.2 | 31.2 | lb/ton | 3.11 | tons/ac | 237 | 9361 | 22997 | 22997 |
| Dry Edible Beans | 1.39 | 4.17 | | lb/cwt | | cwt/ac | | - | - | - |
| Fababeans | 1.79 | 5.02 | 8.4 | lb/cwt | | cwt/ac | | - | - | - |
| Flax | 0.65 | 2.13 | 2.88 | lb/bu | | bu/ac | | - | - | - |
| Grass Hay | 10 | 34.2 | 34.2 | lb/ton | 1.419 | tons/ac | 531 | 7535 | 25769 | 25769 |
| Lentils | 1.03 | 3.39 | 5.08 | lb/cwt | | cwt/ac | | - | - | - |
| Oats | 0.26 | 0.62 | 1.07 | lb/bu | | bu/ac | | - | - | - |
| Pasture (grazed) | 10 | 34.2 | 34.2 | lb/ton | 0.5 | ton/ac | | - | - | - |
| Peas | 0.69 | 2.34 | 3.06 | lb/bu | | bu/ac | | - | - | - |
| Potatoes | 0.09 | 0.32 | 0.57 | lb/cwt | | cwt/ac | | - | - | - |
| Rye | 0.45 | 1.06 | 1.67 | lb/bu | | bu/ac | | - | - | - |
| Soybeans | 0.84 | 3.87 | 5.2 | lb/bu | 28 | bu/ac | 132 | 3105 | 14304 | 19219 |
| Sunflower | 1.1 | 2.8 | | lb/cwt | | cwt/ac | | - | - | - |
| Wheat - Spring | 0.59 | 1.5 | 2.11 | lb/bu | | bu/ac | | - | - | - |
| Wheat - Winter | 0.51 | 1.04 | 1.35 | lb/bu | | bu/ac | | - | - | - |
| | | | | | | Sub Total | 1436 | 36705 | 126807 | 135844 |
| | | | | | | Estimated Average Removal/Uptake (lb/ac) | | 25.6 | 88.3 | 94.6 |
| | | | | | | Additional Acres | | | | |
| | | | | | | Crop Planned on Additional Acres | | | | |
| | | | | | | Total Suitable Acres Available for Manure | 1436 | | | |

**Note:** Additional acres include acres that are suitable and available for manure application but are seeded to crops that are not included in the table. Include the crop to be grown in the row below.

Last revised August 20, 2014

| Species | Animal Category/Operation type | N (lb/year) | P2O5 (lb/year) |
|---|---|---|---|
| Pigs | Gestating Sow | 0 | 0 |
| | Nursing Sow | 0 | 0 |
| | Gilts | 0 | 0 |
| | Boars | 0 | 0 |
| | Sows, farrow to 5 kg | 0 | 0 |
| | Sows, farrow to 23 kg | 0 | 0 |
| | Sows, farrow to finish | 0 | 0 |
| | Weanlings | 0 | 0 |
| | Growers/finishers | 0 | 0 |
| Beef | Mature Cows (>2 years old) | 0 | 0 |
| | Bred Heifer (14 mo - 2 years) | 0 | 0 |
| | Replacement Heifers (7 mo-14 mo) | 0 | 0 |
| | Unweaned Calves (0-7 mo) | 0 | 0 |
| | Bulls | 0 | 0 |
| | Mature Cows and Bred Heifers, plus associated livestock | 0 | 0 |
| | Feedlot Cattle - long keep | 0 | 0 |
| | Feedlot Cattle - short keep | 0 | 0 |
| | Backgrounders - pasture | 0 | 0 |
| | Backgrounders - confined | 0 | 0 |
| Dairy | Lactating cow | 0 | 0 |
| | Dry cow | 0 | 0 |
| | Calf, 0-3 months | 0 | 0 |
| | Calf, 4-13 months | 0 | 0 |
| | Replacements, >13 months | 0 | 0 |
| | Mature Cows, plus assoc livestock | 0 | 0 |
| Sheep | Ewes | 0 | 0 |
| | Replacement Ewes | 0 | 0 |
| | Rams | 0 | 0 |
| | Lambs | 0 | 0 |
| | Ewes, plus assoc livestock | 0 | 0 |
| | Feeder | 106880 | 63732 |
| Chickens | Broilers | 0 | 0 |
| | Broiler Breeder Pullets | 0 | 0 |
| | Broiler Breeder Hens | 0 | 0 |
| Layers | Layer Pullets | 0 | 0 |
| | Layer Hens | 0 | 0 |
| | Breeder Pullets | 0 | 0 |
| | Breeder Hens | 0 | 0 |
| Turkeys | Broiler Hens (0-9 wks) | 0 | 0 |
| | Hens (0-11 wks) | 0 | 0 |
| | Heavy Hens (0-14 wks) | 0 | 0 |
| | Light Toms (0-12 wks) | 0 | 0 |
| | Toms (0-13 wks) | 0 | 0 |
| | Heavy Toms (0-15 wks) | 0 | 0 |
| | Breeding Hen Growers (0-30 wks) | 0 | 0 |
| | Breeding Hens (30-60 wks) | 0 | 0 |
| | Breeding Tom Grower (0-18 wks) | 0 | 0 |
| | Breeding Tom Grower (0-30 wks) | 0 | 0 |
| | Breeding Tom (30-60 wks) | 0 | 0 |
| | Total | 106880 | 63732 |

Note: Be sure all livestock species on your farm are represented in this table. Not just the proposed expansion.

**Sylvio Tessier**

From: "Friesen, Chris (CWS)" <Chris.Friesen@gov.mb.ca>
Date: Thursday, July 16, 2015 12:01 PM
To: "Sylvio Tessier" <sylvio.tessier@mymts.net>
Subject: FW: Lamb Feedlot Proposal

Sylvio
In response to phone message - I believe the response below is for the same request. If not, please let me know.

Chris Friesen
Coordinator
Manitoba Conservation Data Centre
204-945-7747
chris.friesen@gov.mb.ca
http://www.gov.mb.ca/conservation/cdc/

-----Original Message-----
From: Friesen, Chris (CWS)
Sent: May-29-15 1:05 PM
To: 'Sylvio Tessier'
Subject: Lamb Feedlot Proposal

Sylvio

Thank you for your information request. I completed a search of the Manitoba Conservation Data Centre's rare species database and found no occurrences at this time for your area of interest.

The information provided in this letter is based on existing data known to the Manitoba Conservation Data Centre at the time of the request. These data are dependent on the research and observations of CDC staff and others reflect our current state of knowledge. An absence of data in any particular geographic area does not necessarily mean that species or ecological communities of concern are not present; in many areas, comprehensive survey Therefore, this information should be regarded neither as a final statement on the occurrence of any species of concern, nor as a substitute for on-site surveys for species as part of environmental assessments.

Because the Manitoba CDC's Biotics database is continually updated and because information requests are evaluated by type of action, any given response is only appropriate for its respective request. Please contact the Mar natural heritage information if more than six months pass before it is utilized.

Third party requests for products wholly or partially derived from Biotics must be approved by the Manitoba CDC before information is released. Once approved, the primary user will identify the Manitoba CDC as data co using Biotics data, as follows as: Data developed by the Manitoba Conservation Data Centre, Wildlife Branch, Manitoba Conservation and Water Stewardship.

This letter is for information purposes only - it does not constitute consent or approval of the proposed project or activity, nor does it negate the need for any permits or approvals required by the Province of Manitoba.

We would be interested in receiving a copy of the results of any field surveys that you may undertake, to update our database with the most current knowledge of the area.

If you have any questions or require further information please contact me directly at (204) 945-7747.

Chris Friesen
Coordinator
Manitoba Conservation Data Centre
204-945-7747
chris.friesen@gov.mb.ca
http://www.gov.mb.ca/conservation/cdc/

-----Original Message-----
From:
Sent: May-19-15 8:48 AM
To: Friesen, Chris (CWS)
Subject: WWW Form Submission

Below is the result of your feedback form. It was submitted by WWW Information Request () on Tuesday, May 19, 2015 at 08:48:08

---

DocumentID: Manitoba_Conservation

Project Title: Lamb Feedlot Proposal

City: Winnipeg

Province/State: MB

Phone: 204-290-7797

Fax: 204-668-9204

Email: sylvio.tessier@mymts.net

Project Description: Hi Chris,

We're working on a proposal for a new livestock operation in the RM of Stuartburn. Could you please verify if there would be any rare or endangered species on that quarter section or general area?

We're a bit behind the ball with this one, so if you can squeeze this request in good time, we'd be much obliged.

Thanks.

Sylvio Tessier, P.Eng.
South-Man Engineering.

Information Requested: Any potential endangered species that could be affected

Format Requested: E-mail is fine

Location: SW28-3-8E

action: Submit

---

FarmersEdge

Farmers Edge Laboratories
1357 Dugald Road
Winnipeg, Manitoba Canada
R2J 0H3
Phone: 1 204 233 4099

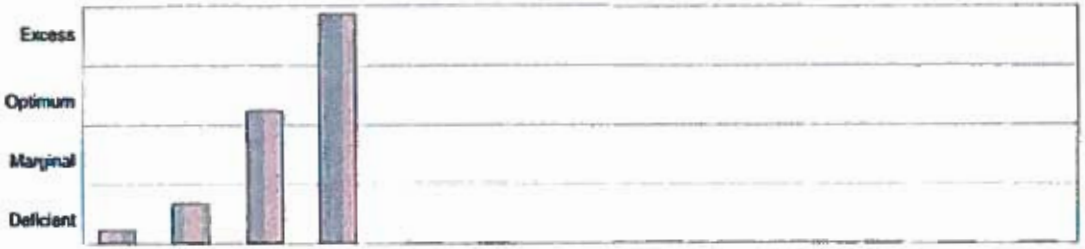
**Report To:** Four Oak Ag Solutions
Box 131
Kleefeld, Manitoba R0A 0V0

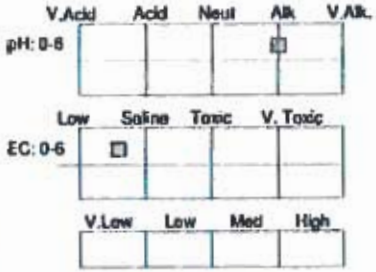
**Attention:** Marcus Dueck
**Client ID:** 14-0027

**Grower:** CANADA SHEEP & LAMB
**Grower Field Name:**
**Reference Field Name:**
**Legal Location:** NE 28-3-8 E1
**Total Acres:**
**Sampler:** MARCUS

**Lot Number:** 150507_015
**Date Sampled:** 2015/05/07
**Received Date:** 2015/05/07
**Date Reported:** 2015/05/08

| Sample ID | Depth | N ppm | P* ppm | K ppm | S ppm | Ca ppm | Mg ppm | Na ppm | B ppm | Cu ppm | Fe ppm | Mn ppm | Zn ppm | Cl ppm | pH | EC dS/m | OM % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 150507_015-01 | 0-6 | 3 | 10.0 | 230 | 21 | | | | | | | | | | 8.0 | 1.12 | |
| 150507_015-02 | 6-24 | 2 | | | 8 | | | | | | | | | | | | |




| | N | P | K | S |
|---|---|---|---|---|
| 0-6 lb/Ac: | 7 | 20 | 460 | 42 |
| 6-24 lb/Ac: | 11 | | | 47 |
| Total lb/Ac measured: | 18 | 20 | 460 | 89 |
| Estimated lb/Ac to 24 inch: | 18 | | | 89 |

CEC (meq/100g):
Base Saturation (%):
Ca Base Saturation (%):
K Base Saturation (%):
Mg Base Saturation (%):
Na Base Saturation (%):
Sand (%):
Silt (%):
Clay (%):
Texture:

| Recommendation: | Comments: |
|---|---|
| | * Bicarbonate-Extractable (Olsen) Phosphate |

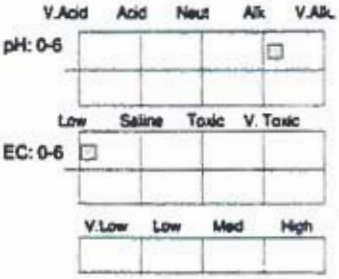
FarmersEdge

(2)

Farmers Edge Laboratories
1357 Dugald Road
Winnipeg, Manitoba Canada
R2J 0H3
Phone: 1 204 233 4099

| | | | | | |
|---|---|---|---|---|---|
| **Report To:** | 4 Oak Ag Solutions<br>Box 131<br>Kleefeld, Manitoba R0A 0V0 | **Grower:** | CANADA SHEEP & LAMB | **Lot Number:** | 140819_006 |
| | | **Grower Field Name:** | NW 28-3-8 E | **Date Sampled:** | 2014/08/19 |
| | | **Reference Field Name:** | East half | **Received Date:** | 2014/08/19 |
| | | **Legal Location:** | NW 28-3-8 E1 | **Date Reported:** | 2014/08/20 |
| **Attention:** | Marcus Dueck | **Total Acres:** | | | |
| **Client ID:** | 14-0027 | **Sampler:** | MARCUS | | |

| Sample ID | Depth | N ppm | P* ppm | K ppm | S ppm | Ca ppm | Mg ppm | Na ppm | B ppm | Cu ppm | Fe ppm | Mn ppm | Zn ppm | Cl ppm | pH | EC dS/m | OM % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 140819_006-01 | 0-6 | 2 | 25.0 | 76 | 6 | | | | | | | | | | 8.4 | 0.29 | |
| 140819_006-02 | 6-24 | <1 | | | 3 | | | | | | | | | | | | |


| | N | P | K | S |
|---|---|---|---|---|
| 0-6 lb/Ac: | 4 | 50 | 152 | 12 |
| 6-24 lb/Ac: | <6 | | | 16 |
| Total lb/Ac measured: | 5 | 50 | 152 | 28 |
| Estimated lb/Ac to 24 inch: | 5 | | | 28 |

CEC (meq/100g): Ca Base Sat. (%): Mg Base Sat. (%):
Base Saturation (%): K Base Sat. (%): Na Base Sat (%):

Sand (%): Silt (%): Clay (%): Texture:

Lab Comments:

* Bicarbonate-Extractable (Olsen) Phosphate

## Fertility Recommendation

Previous Crop: Grass (hay) ☑ Straw Removed ☑ Continuous Cropping ☐ Irrigated

| Yield Type | Rain Required (Inch) | Yield | % Yield Reduction | N | P2O5 | K2O | S | B | Cu | Fe | Mn | Zn | Cl |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Grass (hay)** | | | | | | | | | | | | | |
| Calculated Yield | 10.1 (Wet) | 81 cwt | 0 | 135 | 50 | 60 | 5 | | | | | | |
| Calculated Yield | 7.8 (Average) | 61 cwt | 0 | 130 | 40 | 50 | 0 | | | | | | |
| Calculated Yield | 4.8 (Dry) | 40 cwt | 0 | 70 | 30 | 40 | 0 | | | | | | |

Fertility recommendations are based on spring banding of N, S and seed placement of P, K. Consider total seed row fertilizer with regard to seedling damage.
Potato, Sugar Beet and Grass yield units are cwt/acre, harvested at 15% moisture. Dividing cwt/ac by 20 converts yield units to tons/ac.
High nitrogen rates may be more effective as split application.
For forages, P2O5 and K2O recommendations are for broadcast application. For banded or spoke wheel placement, the rate may be reduced by 1/3 to 1/2.
The rate of P2O5 application is higher than the maximum recommended seed-placed P2O5 rate for the first crop (> 20 lbs/acre). The remaining may be banded.
The rate of Phosphorus application is based on seed-placement. Broadcasting and incorporation requirement on the average is 2.5 times that of seed-placement.



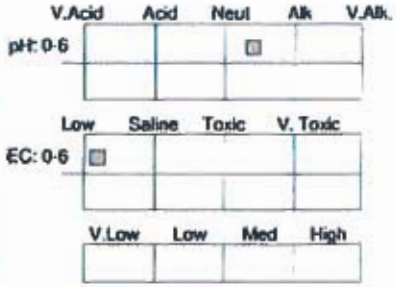
ALP

NAPT 2013

Farmers Edge Laboratories
1357 Dugald Road
Winnipeg, Manitoba Canada
R2J 0H3
Phone: 1 204 233 4099

| | | | | | |
|---|---|---|---|---|---|
| **Report To:** | Four Oak Ag Solutions | **Grower:** | CANADA SHEEP & LAMB | **Lot Number:** | 150424_061 |
| | Box 131 | **Grower Field Name:** | 3 | **Date Sampled:** | 2015/04/23 |
| | Kleefeld, Manitoba R0A 0V0 | **Reference Field Name:** | | **Received Date:** | 2015/04/24 |
| | | **Legal Location:** | SE 28-3-8 E1 | **Date Reported:** | 2015/04/27 |
| **Attention:** | Marcus Dueck | **Total Acres:** | 160 | | |
| **Client ID:** | 14-0027 | **Sampler:** | MARCUS | | |

| Sample ID | Depth | N ppm | P* ppm | K ppm | S ppm | Ca ppm | Mg ppm | Na ppm | B ppm | Cu ppm | Fe ppm | Mn ppm | Zn ppm | Cl ppm | pH | EC dS/m | OM % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 150424_061-01 | 0-6 | 3 | 16.0 | 100 | 3 | | | | | | | | | | 7.4 | 0.28 | |
| 150424_061-02 | 6-24 | <1 | | | <2 | | | | | | | | | | | | |


| | N | P | K | S |
|---|---|---|---|---|
| 0-6 lb/Ac: | 5 | 32 | 200 | 5 |
| 6-24 lb/Ac: | <6 | | | <12 |
| Total lb/Ac measured: | 6 | 32 | 200 | 7 |
| Estimated lb/Ac to 24 inch: | 6 | | | 7 |

CEC (meq/100g): Ca Base Saturation (%): Mg Base Saturation (%):
Base Saturation (%): K Base Saturation (%): Na Base Saturation (%):

Sand (%): Silt (%): Clay (%): Texture:

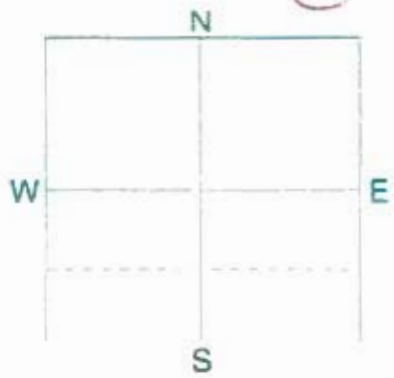
| Recommendation: | Comments: |
|---|---|
| | * Bicarbonate-Extractable (Olsen) Phosphate |

(A)

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

# SOIL TEST REPORT

FIELD ID **SW 28-03-08E**
SAMPLE ID
FIELD NAME **SW 28-03-08E**
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Grass/Pasture**




**SUBMITTED FOR:**
**Canada Sheep and Lamb**

**SUBMITTED BY:** **DU4426**
**FOUR OAK AG SOLUTION**
**31119 RD 27E**
**BOX 131**
**KLEEFELD, MB** **R0A 0V0**

REF # **1012151** BOX # **0**
LAB # **NW91397**

Date Sampled **09/29/2014** Date Received **10/08/2014** Date Reported **4/16/2015**

| Nutrient In The Soil | | Interpretation |
|---|---|---|
| Nitrate | 0-6" 4 lb/ac<br>6-24" 3 lb/ac<br>0-24" 7 lb/ac | |
| Phosphorus | Olsen 14 ppm | |
| Potassium | 67 ppm | |
| Chloride | | |
| Sulfur | 0-6" 24 lb/ac<br>6-24" 36 lb/ac | |
| Boron | | |
| Zinc | 1.47 ppm | |
| Iron | | |
| Manganese | | |
| Copper | 0.32 ppm | |
| Magnesium | | |
| Calcium | | |
| Sodium | | |
| Org.Matter | 2.2 % | |
| Carbonate(CCE) | | |
| Sol. Salts | 0-6" 0.19 mmho/cm<br>6-24" 0.1 mmho/cm | |

| 1st Crop Choice | | |
|---|---|---|
| Corn-Grain | | |
| YIELD GOAL | | |
| 150 BU | | |
| SUGGESTED GUIDELINES | | |
| Broadcast | | |
| LB/ACRE | | APPLICATION |
| N | 173 | |
| $P_2O_5$ | 67 | Broadcast |
| $K_2O$ | 134 | Broadcast |
| Cl | | |
| S | 15 | Broadcast (Trial) |
| B | | |
| Zn | 0 | |
| Fe | | |
| Mn | | |
| Cu | 0 | |
| Mg | | |
| Lime | | |

| 2nd Crop Choice | | |
|---|---|---|
| Corn-Silage | | |
| YIELD GOAL | | |
| 14 Tons | | |
| SUGGESTED GUIDELINES | | |
| Broadcast | | |
| LB/ACRE | | APPLICATION |
| N | 139 | |
| $P_2O_5$ | 60 | Broadcast |
| $K_2O$ | 109 | Broadcast |
| Cl | | |
| S | 15 | Broadcast (Trial) |
| B | | |
| Zn | 0 | |
| Fe | | |
| Mn | | |
| Cu | 0 | |
| Mg | | |
| Lime | | |

| 3rd Crop Choice | | |
|---|---|---|
| Grass/Pasture | | |
| YIELD GOAL | | |
| 6 Tons | | |
| SUGGESTED GUIDELINES | | |
| Broadcast | | |
| LB/ACRE | | APPLICATION |
| N | 173 | |
| $P_2O_5$ | 25 | Broadcast |
| $K_2O$ | 88 | Broadcast |
| Cl | | |
| S | 15 | Broadcast (Trial) |
| B | | |
| Zn | 0 | |
| Fe | | |
| Mn | | |
| Cu | 0 | |
| Mg | | |
| Lime | | |

| Soil pH | Buffer pH | Cation Exchange Capacity | % Base Saturation (Typical Range) | | | | |
|---|---|---|---|---|---|---|---|
| | | | % Ca | % Mg | % K | % Na | % H |
| 0-6" 7.4<br>6-24" 7.3 | | | | | | | |

Crop 1: Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 60 K2O = 41 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.

Crop 2: Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 50 K2O = 116 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.

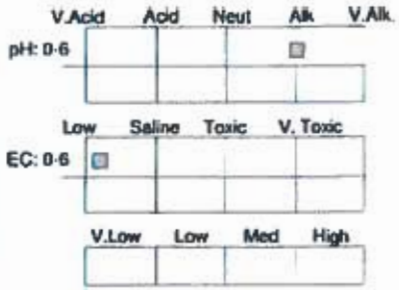
Crop 3: Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 72 K2O = 270 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.

FarmersEdge

Farmers Edge Laboratories
1357 Dugald Road
Winnipeg, Manitoba Canada
R2J 0H3
Phone: 1 204 233 4099

| | | | | | |
|---|---|---|---|---|---|
| **Report To:** | Four Oak Ag Solutions | **Grower:** | CANADA SHEEP & LAMB | **Lot Number:** | 150424_062 |
| | Box 131 | **Grower Field Name:** | 5 NORTH HALF | **Date Sampled:** | 2015/04/23 |
| | Kleefeld, Manitoba R0A 0V0 | **Reference Field Name:** | | **Received Date:** | 2015/04/24 |
| | | **Legal Location:** | SE 35-3-8 E1 | **Date Reported:** | 2015/04/27 |
| **Attention:** | Marcus Dueck | **Total Acres:** | 80 | | |
| **Client ID:** | 14-0027 | **Sampler:** | MARCUS | | |

| Sample ID | Depth | N ppm | P* ppm | K ppm | S ppm | Ca ppm | Mg ppm | Na ppm | B ppm | Cu ppm | Fe ppm | Mn ppm | Zn ppm | Cl ppm | pH | EC dS/m | OM % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 150424_062-01 | 0-6 | 2 | 4.2 | 32 | 3 | | | | | | | | | | 8.0 | 0.32 | |
| 150424_062-02 | 6-24 | <1 | | | <2 | | | | | | | | | | | | |


| | N | P | K | S |
|---|---|---|---|---|
| 0-6 lb/Ac: | 4 | 8 | 64 | 5 |
| 6-24 lb/Ac: | <6 | | | <12 |
| Total lb/Ac measured: | 5 | 8 | 64 | 7 |
| Estimated lb/Ac to 24 inch: | 5 | | | 7 |

CEC (meq/100g):
Ca Base Saturation (%):
Mg Base Saturation (%):
Base Saturation (%):
K Base Saturation (%):
Na Base Saturation (%):

Sand (%):
Silt (%):
Clay (%):
Texture:

| Recommendation: | Comments: |
|---|---|
| | * Bicarbonate-Extractable (Olsen) Phosphate |



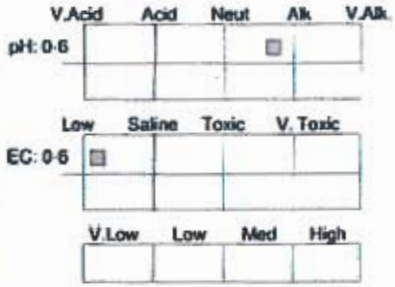
ALP

NAPT 2013

Farmers Edge Laboratories
1357 Dugald Road
Winnipeg, Manitoba Canada
R2J 0H3
Phone: 1 204 233 4099

| | | | | | |
|---|---|---|---|---|---|
| **Report To:** | Four Oak Ag Solutions | **Grower:** | CANADA SHEEP & LAMB | **Lot Number:** | 150424_063 |
| | Box 131 | **Grower Field Name:** | 6 | **Date Sampled:** | 2015/04/23 |
| | Kleefeld, Manitoba R0A 0V0 | **Reference Field Name:** | | **Received Date:** | 2015/04/24 |
| | | **Legal Location:** | NW 26-3-8 E1 | **Date Reported:** | 2015/04/27 |
| **Attention:** | Marcus Dueck | **Total Acres:** | 160 | | |
| **Client ID:** | 14-0027 | **Sampler:** | MARCUS | | |

| Sample ID | Depth | N ppm | P* ppm | K ppm | S ppm | Ca ppm | Mg ppm | Na ppm | B ppm | Cu ppm | Fe ppm | Mn ppm | Zn ppm | Cl ppm | pH | EC dS/m | OM % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 150424_063-01 | 0-6 | 2 | 5.1 | 50 | 4 | | | | | | | | | | 7.7 | 0.31 | |
| 150424_063-02 | 6-24 | 3 | | | 3 | | | | | | | | | | | | |


| | N | P | K | S |
|---|---|---|---|---|
| 0-6 lb/Ac: | 4 | 10 | 100 | 8 |
| 6-24 lb/Ac: | 16 | | | 17 |
| Total lb/Ac measured: | 20 | 10 | 100 | 25 |
| Estimated lb/Ac to 24 inch: | 20 | | | 25 |

CEC (meq/100g): Ca Base Saturation (%): Mg Base Saturation (%):
Base Saturation (%): K Base Saturation (%): Na Base Saturation (%):

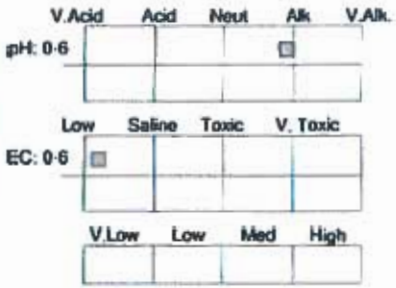
Sand (%): Silt (%): Clay (%): Texture:

| Recommendation: | Comments: |
|---|---|
| | * Bicarbonate-Extractable (Olsen) Phosphate |

Farmers Edge Laboratories
1357 Dugald Road
Winnipeg, Manitoba Canada
R2J 0H3
Phone: 1 204 233 4099

| | | | | | |
|---|---|---|---|---|---|
| **Report To:** | Four Oak Ag Solutions | **Grower:** | CANADA SHEEP & LAMB | **Lot Number:** | 150424_064 |
| | Box 131 | **Grower Field Name:** | 7 | **Date Sampled:** | 2015/04/23 |
| | Kleefeld, Manitoba R0A 0V0 | **Reference Field Name:** | | **Received Date:** | 2015/04/24 |
| | | **Legal Location:** | SW 26-3-8 E1 | **Date Reported:** | 2015/04/27 |
| **Attention:** | Marcus Dueck | **Total Acres:** | 160 | | |
| **Client ID:** | 14-0027 | **Sampler:** | MARCUS | | |

| Sample ID | Depth | N ppm | P* ppm | K ppm | S ppm | Ca ppm | Mg ppm | Na ppm | B ppm | Cu ppm | Fe ppm | Mn ppm | Zn ppm | Cl ppm | pH | EC dS/m | OM % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 150424_064-01 | 0-6 | <1 | 7.0 | 49 | 3 | | | | | | | | | | 7.9 | 0.32 | |
| 150424_064-02 | 6-24 | <1 | | | 4 | | | | | | | | | | | | |


| | N | P | K | S |
|---|---|---|---|---|
| 0-6 lb/Ac: | <2 | 14 | 98 | 7 |
| 6-24 lb/Ac: | <6 | | | 25 |
| Total lb/Ac measured: | 2 | 14 | 98 | 32 |
| Estimated lb/Ac to 24 inch: | 2 | | | 32 |

CEC (meq/100g):
Ca Base Saturation (%):
Mg Base Saturation (%):
Base Saturation (%):
K Base Saturation (%):
Na Base Saturation (%):

Sand (%):
Silt (%):
Clay (%):
Texture:

| Recommendation: | Comments: |
|---|---|
| | * Bicarbonate-Extractable (Olsen) Phosphate |

FarmersEdge

Farmers Edge Laboratories
1357 Dugald Road
Winnipeg, Manitoba Canada
R2J 0H3
Phone: 1 204 233 4099

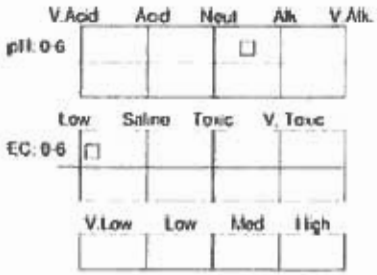
**Report To:** Four Oak Ag Solutions
Box 131
Kleefeld, Manitoba R0A 0V0

**Attention:** Marcus Dueck
**Client ID:** 14-0027

**Grower:** CANADA SHEEP & LAMB
**Grower Field Name:** 8
**Reference Field Name:**
**Legal Location:** SW 35-3-8 E1
**Total Acres:** 160
**Sampler:** MARCUS

**Lot Number:** 150424_065
**Date Sampled:** 2015/04/23
**Received Date:** 2015/04/24
**Date Reported:** 2015/04/27

| Sample ID | Depth | N ppm | P* ppm | K ppm | S ppm | Ca ppm | Mg ppm | Na ppm | B ppm | Cu ppm | Fe ppm | Mn ppm | Zn ppm | Cl ppm | pH | EC dS/m | OM % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 150424_065-01 | 0-6 | <1 | 4.5 | 61 | 3 | | | | | | | | | | 7.5 | 0.29 | |
| 150424_065-02 | 6-24 | <1 | | | <2 | | | | | | | | | | | | |


| | N | P | K | S |
|---|---|---|---|---|
| 0-6 lb/Ac: | <2 | 9 | 122 | 6 |
| 6-24 lb/Ac: | <6 | | | <12 |
| Total lb/Ac measured: | 2 | 9 | 122 | 8 |
| Estimated lb/Ac to 24 inch: | 2 | | | 8 |

CEC (meq/100g):
Ca Base Saturation (%):
Mg Base Saturation (%):
Base Saturation (%):
K Base Saturation (%):
Na Base Saturation (%):

Sand (%):
Silt (%):
Clay (%):
Texture:

| Recommendation | Comments |
|---|---|
| | * Bicarbonate Extractable (Olsen) Phosphate |

FarmersEdge

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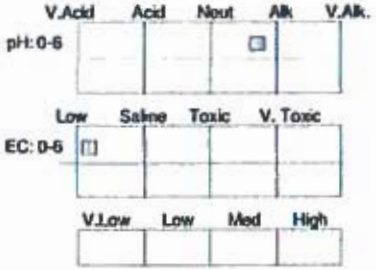
Winnipeg, Manitoba Canada
R2J 0H3
Phone: 1 204 233 4099

| | | | | | |
|---|---|---|---|---|---|
| **Report To:** | Four Oak Ag Solutions | **Grower:** | CANADA SHEEP & LAMB | **Lot Number:** | 150424_068 |
| | Box 131 | **Grower Field Name:** | 11 | **Date Sampled:** | 2015/04/23 |
| | Kleefeld, Manitoba R0A 0V0 | **Reference Field Name:** | | **Received Date:** | 2015/04/24 |
| | | **Legal Location:** | NE 21-3-8 E1 | **Date Reported:** | 2015/04/27 |
| **Attention:** | Marcus Dueck | **Total Acres:** | 160 | | |
| **Client ID:** | 14-0027 | **Sampler:** | MARCUS | | |

| Sample ID | Depth | N ppm | P* ppm | K ppm | S ppm | Ca ppm | Mg ppm | Na ppm | B ppm | Cu ppm | Fe ppm | Mn ppm | Zn ppm | Cl ppm | pH | EC dS/m | OM % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 150424_068-01 | 0-6 | <1 | 13.0 | 42 | 2 | | | | | | | | | | 7.7 | 0.25 | |
| 150424_068-02 | 6-24 | <1 | | | <2 | | | | | | | | | | | | |


| | N | P | K | S |
|---|---|---|---|---|
| 0-6 lb/Ac: | <2 | 26 | 84 | 4 |
| 6-24 lb/Ac: | <6 | | | <12 |
| Total lb/Ac measured: | 2 | 26 | 84 | 6 |
| Estimated lb/Ac to 24 inch: | 2 | | | 6 |

CEC (meq/100g):
Base Saturation (%):
Ca Base Saturation (%):
K Base Saturation (%):
Mg Base Saturation (%):
Na Base Saturation (%):
Sand (%):
Silt (%):
Clay (%):
Texture:

| Recommendation: | Comments: |
|---|---|
| | * Bicarbonate-Extractable (Olsen) Phosphate |

FarmersEdge

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1357 Dugald Road
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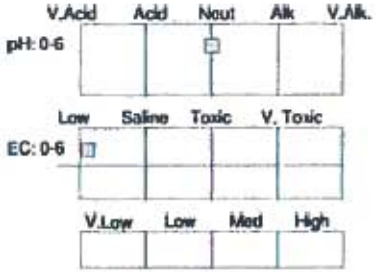
R2J 0H3
Phone: 1 204 233 4099

| | | | | | |
|---|---|---|---|---|---|
| **Report To:** | Four Oak Ag Solutions | **Grower:** | CANADA SHEEP & LAMB | **Lot Number:** | 150424_069 |
| | Box 131 | **Grower Field Name:** | 12 | **Date Sampled:** | 2015/04/23 |
| | Kleefeld, Manitoba R0A 0V0 | **Reference Field Name:** | | **Received Date:** | 2015/04/24 |
| | | **Legal Location:** | SE 21-3-8 E1 | **Date Reported:** | 2015/04/27 |
| **Attention:** | Marcus Dueck | **Total Acres:** | 80 | | |
| **Client ID:** | 14-0027 | **Sampler:** | MARCUS | | |

| Sample ID | Depth | N ppm | P* ppm | K ppm | S ppm | Ca ppm | Mg ppm | Na ppm | B ppm | Cu ppm | Fe ppm | Mn ppm | Zn ppm | Cl ppm | pH | EC dS/m | OM % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 150424_069-01 | 0-6 | <1 | 19.0 | 40 | <2 | | | | | | | | | | 7.0 | 0.14 | |
| 150424_069-02 | 6-24 | <1 | | | <2 | | | | | | | | | | | | |


| | N | P | K | S |
|---|---|---|---|---|
| 0-6 lb/Ac: | <2 | 38 | 80 | <4 |
| 6-24 lb/Ac: | <6 | | | <12 |
| Total lb/Ac measured: | 2 | 38 | 80 | 4 |
| Estimated lb/Ac to 24 inch: | 2 | | | 4 |

CEC (meq/100g):
Base Saturation (%):
Ca Base Saturation (%):
K Base Saturation (%):
Mg Base Saturation (%):
Na Base Saturation (%):
Sand (%):
Silt (%):
Clay (%):
Texture:

| Recommendation: | Comments: |
|---|---|
| | * Bicarbonate-Extractable (Olsen) Phosphate |

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R2J 0H3
Phone: 1 204 233 4099

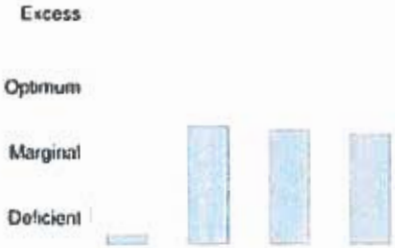
**Report To:** Four Oak Ag Solutions
Box 131
Kleefeld, Manitoba R0A 0V0

**Attention:** Marcus Dueck
**Client ID:** 14-0027

**Grower:** CANADA SHEEP & LAMB
**Grower Field Name:**
**Reference Field Name:**
**Legal Location:** NW 21-3-8 E1
**Total Acres:** 80
**Sampler:** MARCUS

**Lot Number:** 150424_066
**Date Sampled:** 2015/04/23
**Received Date:** 2015/04/24
**Date Reported:** 2015/04/27

| Sample ID | Depth | N ppm | P* ppm | K ppm | S ppm | Ca ppm | Mg ppm | Na ppm | B ppm | Cu ppm | Fe ppm | Mn ppm | Zn ppm | Cl ppm | pH | EC dS/m | OM % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 150424_066-01 | 0-6 | 2 | 23.0 | 130 | 5 | | | | | | | | | | 7.6 | 0.41 | |
| 150424_066-02 | 6-24 | 1 | | | 2 | | | | | | | | | | | | |





| | N | P | K | S |
|---|---|---|---|---|
| 0-6 lb/Ac: | 4 | 46 | 260 | 10 |
| 6-24 lb/Ac: | 7 | | | 13 |
| Total lb/Ac measured: | 11 | 46 | 260 | 23 |
| Estimated lb/Ac to 24 inch: | 11 | | | 23 |

CEC (meq/100g):
Base Saturation (%):
Ca Base Saturation (%):
K Base Saturation (%):
Mg Base Saturation (%):
Na Base Saturation (%):
Sand (%):
Silt (%):
Clay (%):
Texture:

Recommendation:

Comments:

* Bicarbonate-Extractable (Olsen) Phosphate



ALP

NAPT 2013

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Farmers Edge Laboratories
1357 Dugald Road
Winnipeg, Manitoba Canada
R2J 0H3
Phone: 1 204 233 4099

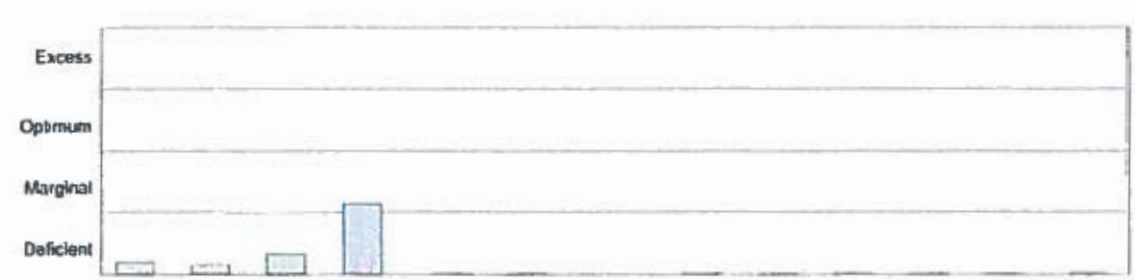
**Report To:** Four Oak Ag Solutions
Box 131
Kleefeld, Manitoba R0A 0V0

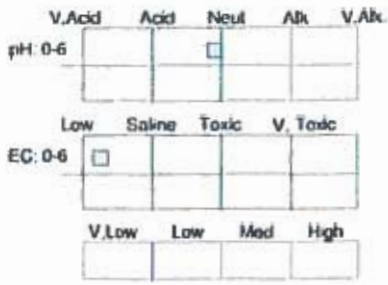
**Attention:** Marcus Dueck
**Client ID:** 14-0027

**Grower:** CANADA SHEEP & LAMB
**Grower Field Name:**
**Reference Field Name:**
**Legal Location:** SE 32-3-8B E1
**Total Acres:** 80
**Sampler:** MARCUS

**Lot Number:** 150527_021
**Date Sampled:** 2015/05/27
**Received Date:** 2015/05/27
**Date Reported:** 2015/05/28

| Sample ID | Depth | N ppm | P* ppm | K ppm | S ppm | Ca ppm | Mg ppm | Na ppm | B ppm | Cu ppm | Fe ppm | Mn ppm | Zn ppm | Cl ppm | pH | EC dS/m | OM % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 150527_021-01 | 0-6 | 1 | 2.2 | 24 | 4 | | | | | | | | | | 6.9 | 0.42 | |
| 150527_021-02 | 6-24 | 2 | | | <2 | | | | | | | | | | | | |




| | N | P | K | S |
|---|---|---|---|---|
| 0-6 lb/Ac: | 2 | 4 | 48 | 9 |
| 6-24 lb/Ac: | 13 | | | <12 |
| Total lb/Ac measured: | 15 | 4 | 48 | 11 |
| Estimated lb/Ac to 24 inch: | 15 | | | 11 |

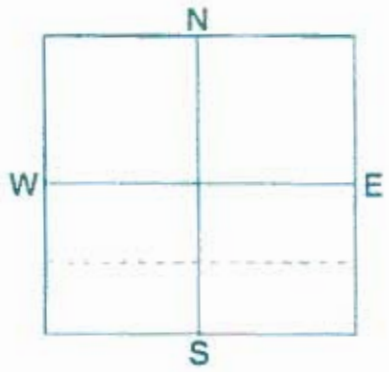
CEC (meq/100g):
Base Saturation (%):
Ca Base Saturation (%):
K Base Saturation (%):
Mg Base Saturation (%):
Na Base Saturation (%):
Sand (%):
Silt (%):
Clay (%):
Texture:

| Recommendation: | Comments: |
|---|---|
| | * Bicarbonate-Extractable (Olsen) Phosphate |

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

# SOIL TEST REPORT

FIELD ID **NE 32-03-08E**
SAMPLE ID
FIELD NAME **NE 32-03-08E**
COUNTY **Nestor Ewacha**
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Grass/Pasture**




**SUBMITTED FOR:**
**Canada Sheep & Lamb Farms**

**SUBMITTED BY:** **DU4426**
**FOUR OAK AG SOLUTION**
**31119 RD 27E**
**BOX 131**
**KLEEFELD, MB** **R0A 0V0**

REF # **1274800** BOX # **0**
LAB # **NW72022**

Date Sampled **09/04/2015** Date Received **09/11/2015** Date Reported **9/13/2015**

| Nutrient In The Soil | | Interpretation (Low / Med / High) |
|---|---|---|
| Nitrate | 0-6" 3 lb/ac<br>6-24" 3 lb/ac<br>0-24" 6 lb/ac | |
| Phosphorus | Olsen 13 ppm | |
| Potassium | 51 ppm | |
| Chloride | | |
| Sulfur | 0-6" 14 lb/ac<br>6-24" 30 lb/ac | |
| Boron | | |
| Zinc | 2.48 ppm | |
| Iron | | |
| Manganese | | |
| Copper | 0.76 ppm | |
| Magnesium | | |
| Calcium | | |
| Sodium | | |
| Org.Matter | 2.9 % | |
| Carbonate(CCE) | | |
| Soil Salts | 0-6" 0.18 mmho/cm<br>6-24" 0.15 mmho/cm | |

| 1st Crop Choice | | | 2nd Crop Choice | | | 3rd Crop Choice | | |
|---|---|---|---|---|---|---|---|---|
| Grass/Pasture | | | | | | | | |
| YIELD GOAL | | | YIELD GOAL | | | YIELD GOAL | | |
| 6 Tons | | | 0 | | | 0 | | |
| SUGGESTED GUIDELINES | | | SUGGESTED GUIDELINES | | | SUGGESTED GUIDELINES | | |
| Broadcast | | | | | | | | |
| LB/ACRE | | APPLICATION | LB/ACRE | | APPLICATION | LB/ACRE | | APPLICATION |
| N | 174 | | N | | | N | | |
| $P_2O_5$ | 30 | Broadcast | $P_2O_5$ | | | $P_2O_5$ | | |
| $K_2O$ | 98 | Broadcast | $K_2O$ | | | $K_2O$ | | |
| Cl | | | Cl | | | Cl | | |
| S | 20 | Broadcast | S | | | S | | |
| B | | | B | | | B | | |
| Zn | 0 | | Zn | | | Zn | | |
| Fe | | | Fe | | | Fe | | |
| Mn | | | Mn | | | Mn | | |
| Cu | 0 | | Cu | | | Cu | | |
| Mg | | | Mg | | | Mg | | |
| Lime | | | Lime | | | Lime | | |

| Soil pH | Buffer pH | Cation Exchange Capacity | % Base Saturation (Typical Range) | | | | |
|---|---|---|---|---|---|---|---|
| | | | % Ca | % Mg | % K | % Na | % H |
| 0-6" 8.1<br>6-24" 8.4 | | | | | | | |

**Crop 1: Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 72 K2O = 270 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.**

Soil Analysis by Agvise Laboratories
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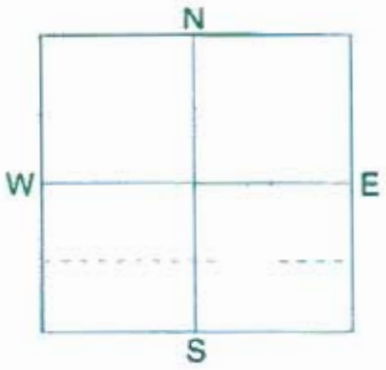
# SOIL TEST REPORT

FIELD ID **NE 29-03-08E**
SAMPLE ID
FIELD NAME **NE 29-03-08E**
COUNTY **Bruce Dueck**
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Grass/Pasture**




**SUBMITTED FOR:**
**Canada Sheep & Lamb Farms**

**SUBMITTED BY:** **DU4426**
**FOUR OAK AG SOLUTION**
**31119 RD 27E**
**BOX 131**
**KLEEFELD, MB** **R0A 0V0**

REF # **1274801** BOX # **0**
LAB # **NW72020**

Date Sampled **09/04/2015** Date Received **09/11/2015** Date Reported **9/13/2015**

| Nutrient In The Soil | | Interpretation |
|---|---|---|
| | | Low / Med / High |
| Nitrate | 0-6" **4 lb/ac**<br>6-24" **3 lb/ac**<br>0-24" **7 lb/ac** | |
| Phosphorus | **Olsen** **6 ppm** | |
| Potassium | **62 ppm** | |
| Chloride | | |
| Sulfur | 0-6" **24 lb/ac**<br>6-24" **36 lb/ac** | |
| Boron | | |
| Zinc | **1.67 ppm** | |
| Iron | | |
| Manganese | | |
| Copper | **1.04 ppm** | |
| Magnesium | | |
| Calcium | | |
| Sodium | | |
| Org Matter | **9.0 %** | |
| Carbonate(CCE) | | |
| Sol. Salts | 0-6" **0.28 mmho/cm**<br>6-24" **0.16 mmho/cm** | |

| 1st Crop Choice | | | 2nd Crop Choice | | | 3rd Crop Choice | | |
|---|---|---|---|---|---|---|---|---|
| Grass/Pasture | | | | | | | | |
| YIELD GOAL | | | YIELD GOAL | | | YIELD GOAL | | |
| 6 Tons | | | 0 | | | 0 | | |
| SUGGESTED GUIDELINES | | | SUGGESTED GUIDELINES | | | SUGGESTED GUIDELINES | | |
| Broadcast | | | | | | | | |
| LB/ACRE | | APPLICATION | LB/ACRE | | APPLICATION | LB/ACRE | | APPLICATION |
| N | **173** | | N | | | N | | |
| $P_2O_5$ | **66** | **Broadcast** | $P_2O_5$ | | | $P_2O_5$ | | |
| $K_2O$ | **91** | **Broadcast** | $K_2O$ | | | $K_2O$ | | |
| Cl | | | Cl | | | Cl | | |
| S | **10** | **Broadcast (Trial)** | S | | | S | | |
| B | | | B | | | B | | |
| Zn | **0** | | Zn | | | Zn | | |
| Fe | | | Fe | | | Fe | | |
| Mn | | | Mn | | | Mn | | |
| Cu | **0** | | Cu | | | Cu | | |
| Mg | | | Mg | | | Mg | | |
| Lime | | | Lime | | | Lime | | |

| Soil pH | Buffer pH | Cation Exchange Capacity | % Base Saturation (Typical Range) | | | | |
|---|---|---|---|---|---|---|---|
| | | | % Ca | % Mg | % K | % Na | % H |
| 0-6" **8.0**<br>6-24" **8.2** | | | | | | | |

**Crop 1: Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 72 K2O = 270 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.**

Soil Analysis by Agvise Laboratories
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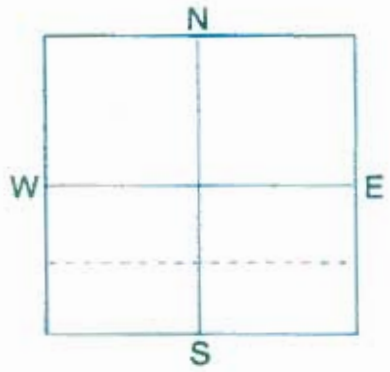
Benson: (320) 843-4109

# SOIL TEST REPORT

FIELD ID **SE 18-03-08E**
SAMPLE ID
FIELD NAME **SE 18-03-08E**
COUNTY **Dean Wall**
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Grass/Pasture**




**SUBMITTED FOR:**
**Canada Sheep & Lamb Farms**

**SUBMITTED BY:** **DU4426**
**FOUR OAK AG SOLUTION**
**31119 RD 27E**
**BOX 131**
**KLEEFELD, MB** **R0A 0V0**

REF # **1274803** BOX # **0**
LAB # **NW72019**

Date Sampled **09/04/2015** Date Received **09/11/2015** Date Reported **9/13/2015**

| Nutrient In The Soil | | Interpretation |
|---|---|---|
| | | Low Med High |
| 0-6" | 4 lb/ac | |
| 6-24" | 9 lb/ac | |
| 0-24" Nitrate | 13 lb/ac | |
| Olsen Phosphorus | 3 ppm | |
| Potassium | 107 ppm | |
| Chloride | | |
| 0-6" | 96 lb/ac | |
| 6-24" Sulfur | 324 lb/ac | |
| Boron | | |
| Zinc | 1.19 ppm | |
| Iron | | |
| Manganese | | |
| Copper | 1.12 ppm | |
| Magnesium | | |
| Calcium | | |
| Sodium | | |
| Org.Matter | 5.0 % | |
| Carbonate(CCE) | | |
| 0-6" | 0.48 mmho/cm | |
| 6-24" Sol. Salts | 0.46 mmho/cm | |

| 1st Crop Choice | | | 2nd Crop Choice | | | 3rd Crop Choice | | |
|---|---|---|---|---|---|---|---|---|
| Grass/Pasture | | | | | | | | |
| YIELD GOAL | | | YIELD GOAL | | | YIELD GOAL | | |
| 6 Tons | | | 0 | | | 0 | | |
| SUGGESTED GUIDELINES | | | SUGGESTED GUIDELINES | | | SUGGESTED GUIDELINES | | |
| Broadcast | | | | | | | | |
| LB/ACRE | | APPLICATION | LB/ACRE | | APPLICATION | LB/ACRE | | APPLICATION |
| N | 167 | | N | | | N | | |
| $P_2O_5$ | 81 | Broadcast | $P_2O_5$ | | | $P_2O_5$ | | |
| $K_2O$ | 61 | Broadcast | $K_2O$ | | | $K_2O$ | | |
| Cl | | | Cl | | | Cl | | |
| S | 0 | | S | | | S | | |
| B | | | B | | | B | | |
| Zn | 0 | | Zn | | | Zn | | |
| Fe | | | Fe | | | Fe | | |
| Mn | | | Mn | | | Mn | | |
| Cu | 0 | | Cu | | | Cu | | |
| Mg | | | Mg | | | Mg | | |
| Lime | | | Lime | | | Lime | | |

| Soil pH | Buffer pH | Cation Exchange Capacity | % Base Saturation (Typical Range) | | | | |
|---|---|---|---|---|---|---|---|
| | | | % Ca | % Mg | % K | % Na | % H |
| 0-6" 8.2<br>6-24" 8.3 | | | | | | | |

**Crop 1: Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 72 K2O = 270 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.**

Soil Analysis by Agvise Laboratories
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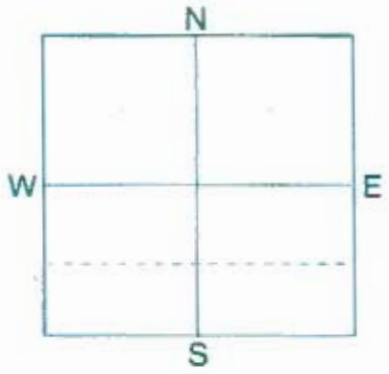
Benson: (320) 843-4109

# SOIL TEST REPORT

FIELD ID **SW 17-03-08E**
SAMPLE ID
FIELD NAME **SW 17-03-08E**
COUNTY **Kelly Marten**
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Grass/Pasture**




**SUBMITTED FOR:**
**Canada Sheep & Lamb Farms**

**SUBMITTED BY:** **DU4426**
**FOUR OAK AG SOLUTION**
**31119 RD 27E**
**BOX 131**
**KLEEFELD, MB** **R0A 0V0**

REF # **1274802** BOX # **0**
LAB # **NW72021**

Date Sampled **09/04/2015** Date Received **09/11/2015** Date Reported **9/13/2015**

| Nutrient In The Soil | | Interpretation (Low / Med / High) |
|---|---|---|
| Nitrate 0-6" | 3 lb/ac | |
| Nitrate 6-24" | 3 lb/ac | |
| Nitrate 0-24" | 6 lb/ac | |
| Phosphorus Olsen | 6 ppm | |
| Potassium | 94 ppm | |
| Chloride | | |
| Sulfur 0-6" | 88 lb/ac | |
| Sulfur 6-24" | 204 lb/ac | |
| Boron | | |
| Zinc | 1.52 ppm | |
| Iron | | |
| Manganese | | |
| Copper | 1.58 ppm | |
| Magnesium | | |
| Calcium | | |
| Sodium | | |
| Org.Matter | 8.5 % | |
| Carbonate(CCE) | | |
| Sol. Salts 0-6" | 0.42 mmho/cm | |
| Sol. Salts 6-24" | 0.36 mmho/cm | |

| 1st Crop Choice | | | 2nd Crop Choice | | | 3rd Crop Choice | | |
|---|---|---|---|---|---|---|---|---|
| Grass/Pasture | | | | | | | | |
| YIELD GOAL | | | YIELD GOAL | | | YIELD GOAL | | |
| 6 Tons | | | 0 | | | 0 | | |
| SUGGESTED GUIDELINES | | | SUGGESTED GUIDELINES | | | SUGGESTED GUIDELINES | | |
| Broadcast | | | | | | | | |
| LB/ACRE | | APPLICATION | LB/ACRE | | APPLICATION | LB/ACRE | | APPLICATION |
| N | 174 | | N | | | N | | |
| $P_2O_5$ | 66 | Broadcast | $P_2O_5$ | | | $P_2O_5$ | | |
| $K_2O$ | 70 | Broadcast | $K_2O$ | | | $K_2O$ | | |
| Cl | | | Cl | | | Cl | | |
| S | 0 | | S | | | S | | |
| B | | | B | | | B | | |
| Zn | 0 | | Zn | | | Zn | | |
| Fe | | | Fe | | | Fe | | |
| Mn | | | Mn | | | Mn | | |
| Cu | 0 | | Cu | | | Cu | | |
| Mg | | | Mg | | | Mg | | |
| Lime | | | Lime | | | Lime | | |

| Soil pH | Buffer pH | Cation Exchange Capacity | % Base Saturation (Typical Range) | | | | |
|---|---|---|---|---|---|---|---|
| | | | % Ca | % Mg | % K | % Na | % H |
| 0-6" 8.2<br>6-24" 8.4 | | | | | | | |

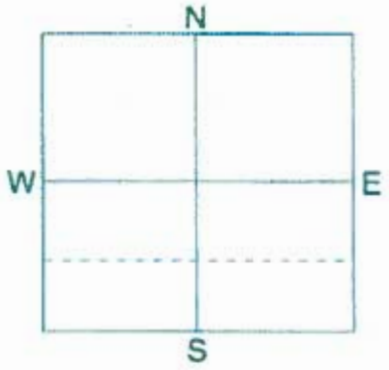
**Crop 1: Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 72 K2O = 270 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.**

Four Oak

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

# SOIL TEST REPORT

FIELD ID **SW 36-02-10E**
SAMPLE ID
FIELD NAME **SW 36-02-10E**
COUNTY **Fredd Shastid**
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Grass/Pasture**




**SUBMITTED FOR:**
**Canada Sheep & Lamb Farms**

**SUBMITTED BY:** **DU4426**
**FOUR OAK AG SOLUTION**
**31119 RD 27E**
**BOX 131**
**KLEEFELD, MB** **R0A 0V0**

REF # **1274799** BOX # **0**
LAB # **NW72023**

Date Sampled **09/04/2015** Date Received **09/11/2015** Date Reported **9/13/2015**

| Nutrient In The Soil | | Interpretation |
|---|---|---|
| | | Low Med High |
| Nitrate | 0-6" 9 lb/ac<br>6-24" 9 lb/ac<br>0-24" 18 lb/ac | |
| Phosphorus | Olsen 5 ppm | |
| Potassium | 60 ppm | |
| Chloride | | |
| Sulfur | 0-6" 16 lb/ac<br>6-24" 24 lb/ac | |
| Boron | | |
| Zinc | 1.00 ppm | |
| Iron | | |
| Manganese | | |
| Copper | 0.65 ppm | |
| Magnesium | | |
| Calcium | | |
| Sodium | | |
| Org Matter | 7.0 % | |
| Carbonate(CCE) | | |
| Sol. Salts | 0-6" 0.26 mmho/cm<br>6-24" 0.21 mmho/cm | |

| 1st Crop Choice | | | 2nd Crop Choice | | | 3rd Crop Choice | | |
|---|---|---|---|---|---|---|---|---|
| Grass/Pasture | | | | | | | | |
| YIELD GOAL | | | YIELD GOAL | | | YIELD GOAL | | |
| 6 Tons | | | 0 | | | 0 | | |
| SUGGESTED GUIDELINES | | | SUGGESTED GUIDELINES | | | SUGGESTED GUIDELINES | | |
| Broadcast | | | | | | | | |
| LB/ACRE | | APPLICATION | LB/ACRE | | APPLICATION | LB/ACRE | | APPLICATION |
| N | 162 | | N | | | N | | |
| $P_2O_5$ | 71 | Broadcast | $P_2O_5$ | | | $P_2O_5$ | | |
| $K_2O$ | 92 | Broadcast | $K_2O$ | | | $K_2O$ | | |
| Cl | | | Cl | | | Cl | | |
| S | 10 | Broadcast (Trial) | S | | | S | | |
| B | | | B | | | B | | |
| Zn | 2 | Broadcast (Trial) | Zn | | | Zn | | |
| Fe | | | Fe | | | Fe | | |
| Mn | | | Mn | | | Mn | | |
| Cu | 0 | | Cu | | | Cu | | |
| Mg | | | Mg | | | Mg | | |
| Lime | | | Lime | | | Lime | | |

| Soil pH | Buffer pH | Cation Exchange Capacity | % Base Saturation (Typical Range) | | | | |
|---|---|---|---|---|---|---|---|
| | | | % Ca | % Mg | % K | % Na | % H |
| 0-6" 7.9<br>6-24" 8.2 | | | | | | | |

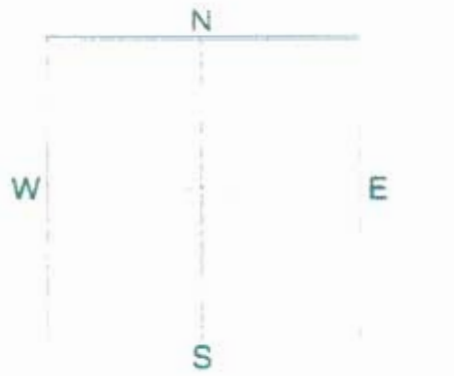
**Crop 1: Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 72 K2O = 270 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.**

Four Oak

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

# SOIL TEST REPORT

FIELD ID SW 34-03-08E
SAMPLE ID
FIELD NAME SW 34-03-08E
COUNTY
TWP RANGE
SECTION QTR ACRES 0
PREV. CROP Grass/Pasture




**SUBMITTED FOR:**
Canada Sheep & Lamb Farms

**SUBMITTED BY:** DU4426
FOUR OAK AG SOLUTION
31119 RD 27E
BOX 131
KLEEFELD, MB R0A 0V0

REF # 1418959 BOX # 0
LAB # NW161147

Date Sampled 10/15/2015 Date Received 10/24/2015 Date Reported 11/25/2015

| Nutrient In The Soil | | | Interpretation |
|---|---|---|---|
| Nitrate | 0-6" | 2 lb/ac | |
| | 6-24" | 6 lb/ac | |
| | 0-24" | 8 lb/ac | |
| Phosphorus | Olsen | 4 ppm | |
| Potassium | | 44 ppm | |
| Chloride | | | |
| Sulfur | 0-6" | 12 lb/ac | |
| | 6-24" | 36 lb/ac | |
| Boron | | | |
| Zinc | | 0.74 ppm | |
| Iron | | | |
| Manganese | | | |
| Copper | | 0.3 ppm | |
| Magnesium | | | |
| Calcium | | | |
| Sodium | | | |
| Org.Matter | | 1.7 % | |
| Carbonate(CCE) | | | |
| Sol. Salts | 0-6" | 0.13 mmho/cm | |
| | 6-24" | 0.09 mmho/cm | |

| 1st Crop Choice | | | 2nd Crop Choice | | | 3rd Crop Choice | | |
|---|---|---|---|---|---|---|---|---|
| Grass/Pasture | | | Corn-Silage | | | Soybeans | | |
| YIELD GOAL | | | YIELD GOAL | | | YIELD GOAL | | |
| 5 Tons | | | 18 Tons | | | 50 BU | | |
| SUGGESTED GUIDELINES | | | SUGGESTED GUIDELINES | | | SUGGESTED GUIDELINES | | |
| Broadcast | | | Broadcast | | | Broadcast | | |
| LB/ACRE | | APPLICATION | LB/ACRE | | APPLICATION | LB/ACRE | | APPLICATION |
| N | 142 | | N | 179 | | N | *** | |
| $P_2O_5$ | 63 | Broadcast | $P_2O_5$ | 127 | Broadcast | $P_2O_5$ | 84 | Broadcast |
| $K_2O$ | 86 | Broadcast | $K_2O$ | 157 | Broadcast | $K_2O$ | 105 | Broadcast |
| Cl | | | Cl | | | Cl | | |
| S | 20 | Broadcast | S | 20 | Broadcast | S | 20 | Broadcast |
| B | | | B | | | B | | |
| Zn | 0 | | Zn | 5 | Broadcast | Zn | 2 | Broadcast |
| Fe | | | Fe | | | Fe | | |
| Mn | | | Mn | | | Mn | | |
| Cu | 2 | Broadcast | Cu | 2 | Broadcast | Cu | 2 | Broadcast |
| Mg | | | Mg | | | Mg | | |
| Lime | | | Lime | | | Lime | | |

| Soil pH | Buffer pH | Cation Exchange Capacity | % Base Saturation (Typical Range) | | | | |
|---|---|---|---|---|---|---|---|
| | | | % Ca | % Mg | % K | % Na | % H |
| 0-6" 7.9<br>6-24" 7.8 | | | | | | | |

Crop 1: Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 60 K2O = 225 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.

Crop 2: Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 65 K2O = 149 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.

Crop 3: Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 44 K2O = 75 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years. Soybeans may respond to nitrogen on fields testing less than 60 lb/ac with a limited soybean history.

Four Oak

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

# SOIL TEST REPORT

FIELD ID **NE 35-03-08E**
SAMPLE ID
FIELD NAME **NE 35-03-08E**
COUNTY **Konrad North**
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Grass/Pasture**

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**SUBMITTED FOR:**
**Canada Sheep & Lamb Farms**

**SUBMITTED BY:** **DU4426**
**FOUR OAK AG SOLUTION**
**31119 RD 27E**
**BOX 131**
**KLEEFELD, MB** **R0A 0V0**

REF # **1463241** BOX # **0**
LAB # **NW209412**

Date Sampled **12/08/2015** Date Received **12/17/2015** Date Reported **12/19/2015**

| Nutrient In The Soil | | Interpretation |
|---|---|---|
| Nitrate | 0-6" 3 lb/ac<br>6-24" 3 lb/ac<br>0-24" 6 lb/ac | |
| Phosphorus | Olsen 8 ppm | |
| Potassium | 70 ppm | |
| Chloride | 0-6" 28 lb/ac<br>6-24" 36 lb/ac | |
| Sulfur | | |
| Boron | | |
| Zinc | 2.06 ppm | |
| Iron | | |
| Manganese | | |
| Copper | 0.75 ppm | |
| Magnesium | | |
| Calcium | | |
| Sodium | | |
| Org.Matter | 7.0 % | |
| Carbonate(CCE) | | |
| Sol. Salts | 0-6" 0.25 mmho/cm<br>6-24" 0.19 mmho/cm | |

| 1st Crop Choice | | | 2nd Crop Choice | | | 3rd Crop Choice | | |
|---|---|---|---|---|---|---|---|---|
| Grass/Pasture | | | Corn-Silage | | | Soybeans | | |
| YIELD GOAL | | | YIELD GOAL | | | YIELD GOAL | | |
| 5 Tons | | | 18 Tons | | | 50 BU | | |
| SUGGESTED GUIDELINES | | | SUGGESTED GUIDELINES | | | SUGGESTED GUIDELINES | | |
| Broadcast | | | Broadcast | | | Broadcast | | |
| LB/ACRE | APPLICATION | | LB/ACRE | APPLICATION | | LB/ACRE | APPLICATION | |
| N 144 | | | N 181 | | | N *** | | |
| $P_2O_5$ 46 | Broadcast | | $P_2O_5$ 107 | Broadcast | | $P_2O_5$ 68 | Broadcast | |
| $K_2O$ 72 | Broadcast | | $K_2O$ 139 | Broadcast | | $K_2O$ 90 | Broadcast | |
| Cl | | | Cl | | | Cl | | |
| S 10 | Broadcast (Trial) | | S 10 | Broadcast (Trial) | | S 10 | Broadcast (Trial) | |
| B | | | B | | | B | | |
| Zn 0 | | | Zn 0 | | | Zn 0 | | |
| Fe | | | Fe | | | Fe | | |
| Mn | | | Mn | | | Mn | | |
| Cu 0 | | | Cu 0 | | | Cu 0 | | |
| Mg | | | Mg | | | Mg | | |
| Lime | | | Lime | | | Lime | | |

| Soil pH | Buffer pH | Cation Exchange Capacity | % Base Saturation (Typical Range) | | | | |
|---|---|---|---|---|---|---|---|
| | | | % Ca | % Mg | % K | % Na | % H |
| 0-6" 8.1<br>6-24" 8.1 | | | | | | | |

**Crop 1:** Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 60 K2O = 225 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.

**Crop 2:** Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 65 K2O = 149 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.

**Crop 3:** Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 44 K2O = 75 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years. Soybeans may respond to nitrogen on fields testing less than 60 lb/ac with a limited soybean history.

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

# SOIL TEST REPORT

FIELD ID **NE 20-01-08E**
SAMPLE ID
FIELD NAME **NE 20-01-08E**
COUNTY **Matthew Wiebe**
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Grass/Pasture**

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**SUBMITTED FOR:**
**Canada Sheep & Lamb Farms**

**SUBMITTED BY:** **DU4426**
**FOUR OAK AG SOLUTION**
**31119 RD 27E**
**BOX 131**
**KLEEFELD, MB** **R0A 0V0**

REF # **1463245** BOX # **0**
LAB # **NW209407**

Date Sampled **12/09/2015** Date Received **12/17/2015** Date Reported **12/19/2015**

| Nutrient In The Soil | | Interpretation |
|---|---|---|
| Nitrate | 0-6" 2 lb/ac<br>6-24" 3 lb/ac | |
| | 0-24" 5 lb/ac | |
| Phosphorus | Olsen 15 ppm | ••••••••••••••••••••• |
| Potassium | 66 ppm | •••••••••• |
| Chloride | | |
| Sulfur | 0-6" 22 lb/ac<br>6-24" 18 lb/ac | ••••••••••••••<br>•••••••••••• |
| Boron | | |
| Zinc | 6.35 ppm | ••••••••••••••••••••••• |
| Iron | | |
| Manganese | | |
| Copper | 1.0 ppm | •••••••••••••••• |
| Magnesium | | |
| Calcium | | |
| Sodium | | |
| Org.Matter | 3.3 % | •••••••••••• |
| Carbonate(CCE) | | |
| Soil Salts | 0-6" 0.2 mmho/cm<br>6-24" 0.14 mmho/cm | •••••<br>••• |

| 1st Crop Choice | | |
|---|---|---|
| Grass/Pasture | | |
| YIELD GOAL | | |
| 5 Tons | | |
| SUGGESTED GUIDELINES | | |
| Broadcast | | |
| LB/ACRE | | APPLICATION |
| N | 145 | |
| $P_2O_5$ | 17 | Broadcast |
| $K_2O$ | 74 | Broadcast |
| Cl | | |
| S | 10 | Broadcast (Trial) |
| B | | |
| Zn | 0 | |
| Fe | | |
| Mn | | |
| Cu | 0 | |
| Mg | | |
| Lime | | |

| 2nd Crop Choice | | |
|---|---|---|
| Corn-Silage | | |
| YIELD GOAL | | |
| 18 Tons | | |
| SUGGESTED GUIDELINES | | |
| Broadcast | | |
| LB/ACRE | | APPLICATION |
| N | 182 | |
| $P_2O_5$ | 72 | Broadcast |
| $K_2O$ | 141 | Broadcast |
| Cl | | |
| S | 10 | Broadcast (Trial) |
| B | | |
| Zn | 0 | |
| Fe | | |
| Mn | | |
| Cu | 0 | |
| Mg | | |
| Lime | | |

| 3rd Crop Choice | | |
|---|---|---|
| Soybeans | | |
| YIELD GOAL | | |
| 50 BU | | |
| SUGGESTED GUIDELINES | | |
| Broadcast | | |
| LB/ACRE | | APPLICATION |
| N | *** | |
| $P_2O_5$ | 40 | Broadcast |
| $K_2O$ | 92 | Broadcast |
| Cl | | |
| S | 10 | Broadcast (Trial) |
| B | | |
| Zn | 0 | |
| Fe | | |
| Mn | | |
| Cu | 0 | |
| Mg | | |
| Lime | | |

| Soil pH | Buffer pH | Cation Exchange Capacity | % Base Saturation (Typical Range) | | | | |
|---|---|---|---|---|---|---|---|
| | | | % Ca | % Mg | % K | % Na | % H |
| 0-6" 7.9<br>6-24" 8.2 | | | | | | | |

Crop 1: Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 60 K2O = 225 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.

Crop 2: Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 65 K2O = 149 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.

Crop 3: Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 44 K2O = 75 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years. Soybeans may respond to nitrogen on fields testing less than 60 lb/ac with a limited soybean history.

Four Oak

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

# SOIL TEST REPORT

FIELD ID **SW 20-01-08E**
SAMPLE ID
FIELD NAME **SW 20-01-08E**
COUNTY **Matthew Wiebe**
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Grass/Pasture**

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**SUBMITTED FOR:**
**Canada Sheep & Lamb Farms**

**SUBMITTED BY:** **DU4426**
**FOUR OAK AG SOLUTION**
**31119 RD 27E**
**BOX 131**
**KLEEFELD, MB** **R0A 0V0**

REF # **1463243** BOX # **0**
LAB # **NW209408**

Date Sampled **12/09/2015** Date Received **12/17/2015** Date Reported **12/19/2015**

| Nutrient In The Soil | | Interpretation (Low / High) |
|---|---|---|
| 0-6" | 4 lb/ac | |
| 6-24" | 3 lb/ac | |
| 0-24" | 7 lb/ac | |
| Nitrate | | |
| Olsen | 13 ppm | |
| Phosphorus | | |
| Potassium | 72 ppm | |
| Chloride | | |
| 0-6" | 26 lb/ac | |
| 6-24" | 42 lb/ac | |
| Sulfur | | |
| Boron | | |
| Zinc | 7.81 ppm | |
| Iron | | |
| Manganese | | |
| Copper | 1.29 ppm | |
| Magnesium | | |
| Calcium | | |
| Sodium | | |
| Org.Matter | 4.1 % | |
| Carbonate(CCE) | | |
| 0-6" | 0.27 mmho/cm | |
| 6-24" | 0.2 mmho/cm | |
| Sol. Salts | | |

| 1st Crop Choice | | |
|---|---|---|
| Grass/Pasture | | |
| YIELD GOAL | | |
| 5 Tons | | |
| SUGGESTED GUIDELINES | | |
| Broadcast | | |
| LB/ACRE | | APPLICATION |
| N | 143 | |
| $P_2O_5$ | 25 | Broadcast |
| $K_2O$ | 70 | Broadcast |
| Cl | | |
| S | 10 | Broadcast (Trial) |
| B | | |
| Zn | 0 | |
| Fe | | |
| Mn | | |
| Cu | 0 | |
| Mg | | |
| Lime | | |

| 2nd Crop Choice | | |
|---|---|---|
| Corn-Silage | | |
| YIELD GOAL | | |
| 18 Tons | | |
| SUGGESTED GUIDELINES | | |
| Broadcast | | |
| LB/ACRE | | APPLICATION |
| N | 180 | |
| $P_2O_5$ | 82 | Broadcast |
| $K_2O$ | 137 | Broadcast |
| Cl | | |
| S | 10 | Broadcast (Trial) |
| B | | |
| Zn | 0 | |
| Fe | | |
| Mn | | |
| Cu | 0 | |
| Mg | | |
| Lime | | |

| 3rd Crop Choice | | |
|---|---|---|
| Soybeans | | |
| YIELD GOAL | | |
| 50 BU | | |
| SUGGESTED GUIDELINES | | |
| Broadcast | | |
| LB/ACRE | | APPLICATION |
| N | *** | |
| $P_2O_5$ | 48 | Broadcast |
| $K_2O$ | 86 | Broadcast |
| Cl | | |
| S | 10 | Broadcast (Trial) |
| B | | |
| Zn | 0 | |
| Fe | | |
| Mn | | |
| Cu | 0 | |
| Mg | | |
| Lime | | |

| Soil pH | Buffer pH | Cation Exchange Capacity | % Base Saturation (Typical Range) | | | | |
|---|---|---|---|---|---|---|---|
| | | | % Ca | % Mg | % K | % Na | % H |
| 0-6" 8.0<br>6-24" 8.1 | | | | | | | |

Crop 1: Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 60 K2O = 225 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.

Crop 2: Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 65 K2O = 149 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.

Crop 3: Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 44 K2O = 75 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years. Soybeans may respond to nitrogen on fields testing less than 60 lb/ac with a limited soybean history.

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

# SOIL TEST REPORT

FIELD ID **SE 20-01-08E**
SAMPLE ID
FIELD NAME **SE 20-01-08E**
COUNTY **Matthew Wiebe**
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Grass/Pasture**


**SUBMITTED FOR:**
**Canada Sheep & Lamb Farms**

**SUBMITTED BY:** **DU4426**
**FOUR OAK AG SOLUTION**
**31119 RD 27E**
**BOX 131**
**KLEEFELD, MB** **R0A 0V0**

REF # **1463244** BOX # **0**
LAB # **NW209415**

Date Sampled **12/09/2015** Date Received **12/17/2015** Date Reported **12/19/2015**

| Nutrient In The Soil | | Interpretation |
|---|---|---|
| | | Low / High |
| 0-6" | 2 lb/ac | |
| 6-24" | 3 lb/ac | |
| 0-24" | 5 lb/ac | |
| Nitrate | | |
| Olsen | 7 ppm | |
| Phosphorus | | |
| Potassium | 72 ppm | |
| Chloride | | |
| 0-6" | 22 lb/ac | |
| 6-24" | 30 lb/ac | |
| Sulfur | | |
| Boron | | |
| Zinc | 6.11 ppm | |
| Iron | | |
| Manganese | | |
| Copper | 0.86 ppm | |
| Magnesium | | |
| Calcium | | |
| Sodium | | |
| Org Matter | 4.2 % | |
| Carbonate(ECE) | | |
| 0-6" | 0.23 mmho/cm | |
| 6-24" | 0.17 mmho/cm | |
| Sol. Salts | | |

| 1st Crop Choice | | |
|---|---|---|
| Grass/Pasture | | |
| YIELD GOAL | | |
| 5 Tons | | |
| SUGGESTED GUIDELINES | | |
| Broadcast | | |
| LB/ACRE | | APPLICATION |
| N | 145 | |
| $P_2O_5$ | 51 | Broadcast |
| $K_2O$ | 70 | Broadcast |
| Cl | | |
| S | 10 | Broadcast (Trial) |
| B | | |
| Zn | 0 | |
| Fe | | |
| Mn | | |
| Cu | 0 | |
| Mg | | |
| Lime | | |

| 2nd Crop Choice | | |
|---|---|---|
| Corn-Silage | | |
| YIELD GOAL | | |
| 18 Tons | | |
| SUGGESTED GUIDELINES | | |
| Broadcast | | |
| LB/ACRE | | APPLICATION |
| N | 182 | |
| $P_2O_5$ | 112 | Broadcast |
| $K_2O$ | 137 | Broadcast |
| Cl | | |
| S | 10 | Broadcast (Trial) |
| B | | |
| Zn | 0 | |
| Fe | | |
| Mn | | |
| Cu | 0 | |
| Mg | | |
| Lime | | |

| 3rd Crop Choice | | |
|---|---|---|
| Soybeans | | |
| YIELD GOAL | | |
| 50 BU | | |
| SUGGESTED GUIDELINES | | |
| Broadcast | | |
| LB/ACRE | | APPLICATION |
| N | *** | |
| $P_2O_5$ | 72 | Broadcast |
| $K_2O$ | 88 | Broadcast |
| Cl | | |
| S | 10 | Broadcast (Trial) |
| B | | |
| Zn | 0 | |
| Fe | | |
| Mn | | |
| Cu | 0 | |
| Mg | | |
| Lime | | |

| Soil pH | Buffer pH | Cation Exchange Capacity | % Base Saturation (Typical Range) | | | | |
|---|---|---|---|---|---|---|---|
| | | | % Ca | % Mg | % K | % Na | % H |
| 0-6" 8.0<br>6-24" 8.2 | | | | | | | |

**Crop 1:** Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 60 K2O = 225 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.

**Crop 2:** Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 65 K2O = 149 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.

**Crop 3:** Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 44 K2O = 75 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years. Soybeans may respond to nitrogen on fields testing less than 60 lb/ac with a limited soybean history.

Four Oak

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

# SOIL TEST REPORT

FIELD ID **SW 06-01-08E**
SAMPLE ID
FIELD NAME **SW 06-01-08E**
COUNTY **Matthew Wiebe**
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Grass/Pasture**

N
W E
S

**SUBMITTED FOR:**
**Canada Sheep & Lamb Farms**

**SUBMITTED BY:** **DU4426**
**FOUR OAK AG SOLUTION**
**31119 RD 27E**
**BOX 131**
**KLEEFELD, MB** **R0A 0V0**

REF # **1463242** BOX # **0**
LAB # **NW209413**

Date Sampled **12/09/2015** Date Received **12/17/2015** Date Reported **12/19/2015**

| Nutrient In The Soil | | Interpretation |
|---|---|---|
| | 0-6" 2 lb/ac<br>6-24" 6 lb/ac | |
| Nitrate | 0-24" 8 lb/ac | |
| Phosphorus | Olsen 6 ppm | ********** |
| Potassium | 98 ppm | ********** |
| Chloride | | |
| Sulfur | 0-6" 18 lb/ac<br>6-24" 36 lb/ac | ********** |
| Boron | | |
| Zinc | 1.13 ppm | ********** |
| Iron | | |
| Manganese | | |
| Copper | 1.0 ppm | ********** |
| Magnesium | | |
| Calcium | | |
| Sodium | | |
| Org.Matter | 4.2 % | ********** |
| Carbonate(CCE) | | |
| Sol. Salts | 0-6" 0.3 mmho/cm<br>6-24" 0.29 mmho/cm | ******* |

| 1st Crop Choice | | |
|---|---|---|
| Grass/Pasture | | |
| YIELD GOAL | | |
| 5 Tons | | |
| SUGGESTED GUIDELINES | | |
| Broadcast | | |
| LB/ACRE | | APPLICATION |
| N | 142 | |
| $P_2O_5$ | 55 | Broadcast |
| $K_2O$ | 56 | Broadcast |
| Cl | | |
| S | 10 | Broadcast (Trial) |
| B | | |
| Zn | 0 | |
| Fe | | |
| Mn | | |
| Cu | 0 | |
| Mg | | |
| Lime | | |

| 2nd Crop Choice | | |
|---|---|---|
| Corn-Silage | | |
| YIELD GOAL | | |
| 18 Tons | | |
| SUGGESTED GUIDELINES | | |
| Broadcast | | |
| LB/ACRE | | APPLICATION |
| N | 179 | |
| $P_2O_5$ | 117 | Broadcast |
| $K_2O$ | 118 | Broadcast |
| Cl | | |
| S | 10 | Broadcast (Trial) |
| B | | |
| Zn | 2 | Broadcast |
| Fe | | |
| Mn | | |
| Cu | 0 | |
| Mg | | |
| Lime | | |

| 3rd Crop Choice | | |
|---|---|---|
| Soybeans | | |
| YIELD GOAL | | |
| 50 BU | | |
| SUGGESTED GUIDELINES | | |
| Broadcast | | |
| LB/ACRE | | APPLICATION |
| N | *** | |
| $P_2O_5$ | 76 | Broadcast |
| $K_2O$ | 73 | Broadcast |
| Cl | | |
| S | 10 | Broadcast (Trial) |
| B | | |
| Zn | 0 | |
| Fe | | |
| Mn | | |
| Cu | 0 | |
| Mg | | |
| Lime | | |

| Soil pH | Buffer pH | Cation Exchange Capacity | % Base Saturation (Typical Range) | | | | |
|---|---|---|---|---|---|---|---|
| | | | % Ca | % Mg | % K | % Na | % H |
| 0-6" 8.0<br>6-24" 8.4 | | | | | | | |

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