

Government of Alberta

Know Your Soil

Alberta Soil Information Viewer

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Introduction

Twenty-five years ago, the federal and provincial governments of the day made a significant investment to coordinate, integrate, and standardize the soil survey, classification, and mapping in the Agricultural area of Alberta. The result of that investment was a spatial database called the “Agricultural Regions of Alberta Soil Inventory Database” (AGRASID).

There was a custom viewer built to give those without access to database and geographic information system (GIS) software a quick and economical means of accessing AGRASID soil data.

The viewer design provided high-level soils information, while detailed soil attribute access occurred through direct access to the AGRASID database of soil information by other means.

Over time, the platform for access and delivery transitioned:

- From a compact disk (CD) digital soil spatial data and Viewer programs installed on an intel PC desktop or laptop
- To a dynamic web-based map application optimised to support a expanding range of Intel, Apple, and Android desktop, laptop, tablet and smartphone devices;

The Alberta soil information viewer strives to make agricultural soils information that clients want as accessible to as wide an audience as possible.

In this latest iteration of the viewer, there has been an effort to include more specific soils information based on client survey requests. This document goes through how to access specific soils information.

Contact the [Ag-Info Centre](#), toll-free in Alberta at **310-FARM (3276)**, or outside of Alberta at 403-742-7901 for further soil viewer and agricultural information.

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Getting Started

1. Open a browser, go to the [Government Alberta website](#), search for “Alberta Soil Information Viewer” Left mouse click on the first available link that says “Alberta Soil Information Viewer | Alberta.ca” and scroll to the button:

Go to the Soil Information Viewer 

2. Left mouse click or tap the button:

Close & Continue

to get started on the Alberta Soil Information Viewer.

3. Left mouse click or tap the maximize viewer button **Maximize Viewer** in the top right corner of banner for the viewer.

Find your Farm

In order to search and zoom to your farm or some other area of interest please read the document on how to find your farm.

1. In the search box located in the top left area of the viewer enter the following legal land description on the north east quarter of 23, township 026, range 29 west of the 4th meridian: search and zoom for “ne-23-026-29-4”and
2. Left click, and tap the magifying glass icon to begin the search. Tapping the enter key will also initiate the search.

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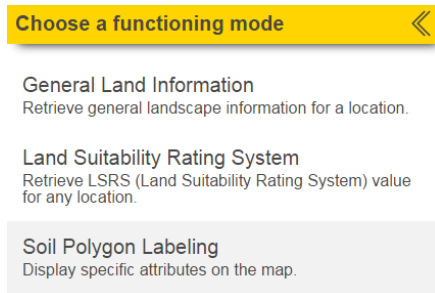
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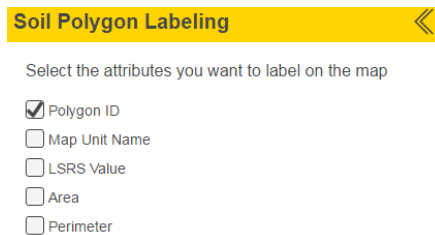
General Information

Once navigation to the area of interest has occurred:

1. Change the “functioning mode” to “Soil Polygon Labeling”



2. Checkmark “Polygon ID”



3. Left mouse click or tap the “less than” icon  at the bottom of the Soil Polygon Labeling window.

4. Left mouse click or tap the “select drawing rectangle”  icon in the vertical tool bar located in the top right of the map area.

5. Draw a box in the mapping area inside of section 23 township 026 range 29 west of the 4th meridian.



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6. Choose the “General Land Information” functioning mode.

Choose a functioning mode <<

General Land Information
Retrieve general landscape information for a location.

Land Suitability Rating System
Retrieve LSRS (Land Suitability Rating System) value for any location.

Soil Polygon Labeling
Display specific attributes on the map.

7. The “functioning mode” for the side window is changed to “General Information”

General Information <<

Select polygons on the map

11002
11015
11026
11028
11031

Variable	Value
POLY_ID	11002
Map Unit Name	ADHP18/U1h
Landform	U1h - undulating - high relief
LSRS Rating (Spring Grains)	3HT(4) - 3MT(3) - 7WN(3)

Landscape Model Descriptions:
Orthic Black Chernozem on medium textured (L, CL) till (ADY).
Rego Black Chernozem on coarse textured (S, LS, SL) materials over medium (L, CL) or fine (C) textured till (HPV).
The polygon includes poorly drained soils and soils that are finer textured than the dominant or co-dominant soils (18).
Undulating, high relief landform with a limiting slope of 4% (U1h).

Image Landform Model Landform Profile

Export to PDF

- Note that “Poly_ID” (Polygon ID) also known as “Polygon number” 11002 is highlighted grey in both the list, and the mapping area of the viewer.
- There is a summary table of some general soil attributes of soil polygon id (POLY_ID): 11002.
- Note the information made visible or the activity that is initiated when the following buttons are left mouse clicked or tapped:

- “Image”
- “Landform Model”
- “Landform Profile”
- “Export to PDF”

- Left mouse click or tap the next “Polygon ID”: 11015 in the list or selected soil polygons and note any changes the information and function in the General Information Window and mapping area of the viewer.

8. Left mouse click or tap the “less than” icon < at the bottom of the “General Information” window.

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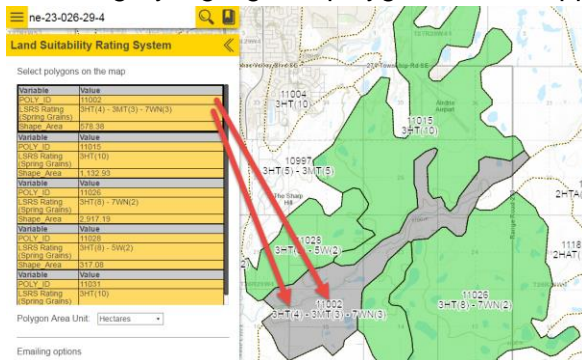
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Land Suitability

For a relative sense of the land suitability rating for spring seeded small grains at or near your farm or area of interest please refer to the “know your land suitability” document the Alberta Soil Information Viewer landing page on Alberta.ca.

1. Inspect the LSRS Spring Grains values for each tabular record in the Land Suitability Rating System functioning mode window that is associated with each AGRASID soil polygon number (POLY_ID) selected in the mapping area of the viewer.
2. Note the one to one correspondence between the bold outline of the currently sub selected LSRS record and the grey highlighted polygon in the mapped area of the viewer.

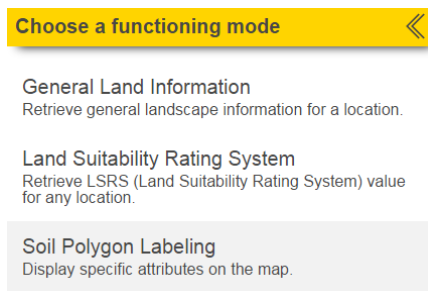


3. Left mouse click or tap the “less than” icon (⊖) at the bottom of the “Land Suitability Rating System” window.

Specific Information

The “Specific (AGRASID soils) Information” functioning mode window provides the most often required specific soil information client’s most often request.

1. Search and Zoom to AGRASID Polygon ID (Poly_ID): 11002,
2. Change the “functioning mode” to Soil Polygon Labeling

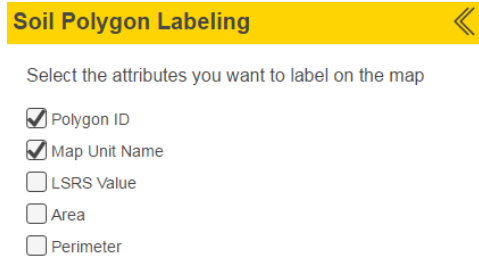



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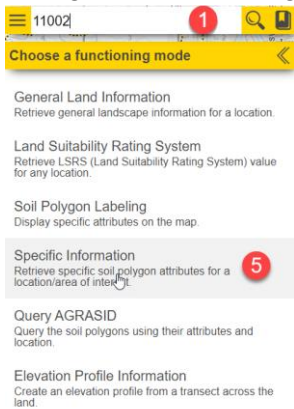
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3. Checkmark “Polygon ID” and “Map Unit Name” labeling options.



4. Left mouse click or tap the “less than” icon  at the bottom of the Soil Polygon Labeling window.
5. Change the functioning mode of the left side window to “Specific Information”



6. Toggle the “Right Pointing Chevron”  or “Down Pointing Chevron”  icon so that the various specific soil information tables are hidden  or opened  :

a. Soil Polygon table

POLY_ID	11002
Map Unit Name	ADHP18/U1h
Landform	U1h - undulating - high relief
LSRS Rating (Spring Grains)	3HT(4) - 3MT(3) - 7WN(3)
Area (ha)	578.38
Area (ac)	1429.20

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b. Component table(s)

Component Number	1
Landform Position	M - Mid slope
Extent (%)	40
Slope Gradient (80%)	4
Slope Length (m)	115

c. Soil table(s)

SOIL_CODE	ADY
Soil Series	ACADEMY
Drainage	W - Well
Parent Material Texture (1)	MF - Moderately fine textured: sand clay loam, clay loam and silty clay loam
Soil Subgroup	O.BLC - Orthic Black Chernozem
Parent Material Code	M4 - Medium textured (L to CL) till (Till name)

d. Layer table(s)

Horizon Number	1
Horizon Master	A - Surface mineral horizon
Horizon Suffix	p
Upper Depth (cm)	0
Lower Depth (cm)	18
Texture Class	SiCL - Silty clay loam
Total Sand (%)	19
Total Silt (%)	50
Total Clay (%)	31

For further information on the definition of the content in each specific information tables listed above, please refer to the “*Location 10: Specific Soil Information Discovery section of the Run the Alberta Soil Information Viewer*” document.

7. Things to note:

a. An AGRASID soil Polygon must be:

- i. Selected, or alternatively, highlighted in order to access specific soil attribute information about an AGRASID soil polygon.
- ii. Selected soil polygons are shaded a transparent green while an individual soil polygon may be highlighted gray in the mapping area of the viewer.
- iii. The *General Information*, *Specific Information*, or *Query AGRASID* functioning modes only display data when:
 1. One or a group of soil polygons have been selected (green shaded), or
 2. Exactly one of the selected group of soil polygons is highlighted (shaded gray).

- ### b. Searching by Polygon ID (Poly_ID) not only “searches and zooms” to the AGRASID polygon of interest, it also automatically selects / highlights the polygon in soils data layer of the viewer. Because of this, both the general and the specific information about this AGRASID polygon are instantly available to the left side window’s *General Information*, *Specific Information*, or *Query AGRASID* functioning modes.







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c. If searching is achieved by a method other than then by searching for a specific POLY_ID number, it is necessary to select soil polygons using one of the following icons in the vertical tool bar in the top right location of the mapping area of the viewer:

- i.  “Select (soil polygons)” by dragging a rectangle using the mouse or gestures. Soil polygons touching the drawn selection rectangle become selected in the map area of the viewer.
- ii.  “Select (soil polygons)” by drawing a multi-segmented polygon using the mouse or gestures. Soil polygons touching all or a portion of the drawn selection polygon become selected in the map area of the viewer.
- iii.  “Select (soil polygons)” by a buffer (see markup tools Location15 for further information on buffer creation). By left mouse clicking or tapping the “select by buffer tool”, and then left mouse clicking or tapping the preferred buffer polygon all soil polygons that touch the buffer polygon will be selected.
- iv.  “Select (soil polygons)” by a markup polygon (see markup tools Location15 for further information on point line and polygon markup creation). By left mouse clicking or tapping the “select by markup tool”, and then left mouse clicking or tapping the preferred markup point line or polygon all soil polygons that touch the buffer polygon will be selected.
- v.  “Clear selected (soil polygons)” by left mouse clicking or tapping on this icon.
- vi.  On a final note, the ability to select individual soil polygons may be done with or without initiating the “the select (soil polygon) tool bar” an individual soil polygon may be selected by moving the cursor to the preferred location in the map area of the viewer and then left mouse clicking , or tapping.

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