

Saskatchewan Irrigation Statistics 2025



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1. Introduction

The province of Saskatchewan is committed to growing its irrigation sector. Irrigation turns water into economic growth by increasing crop production, enabling diversification to higher-value crops, creating processing opportunities and creating jobs across the province. A recent study completed by KPMG finds that irrigation will increase the value of primary crop production by \$882 per acre in the Lake Diefenbaker area in comparison to dryland production.

In the five-year period from 2020 through 2025, the province experienced growth of 108,564 acres of new irrigation. This exceeds the 85,000-acre target that was identified in Saskatchewan’s Growth Plan.

The purpose of this publication is to provide statistical information and data of Saskatchewan’s growing irrigation industry. Please note that the data is from the 2025 growing season as it takes time to accumulate the data after the end of the growing season. Statistical information for the 2026 growing season will be made available in the spring of 2027.

For more information, please contact:
Ministry of Agriculture
Box 609, 410 Saskatchewan Avenue West
Outlook, SK Canada S0L 2N0
Phone: 306-867-5500
Email: irrigation@gov.sk.ca

2. Irrigation in Saskatchewan

Irrigation development in Saskatchewan has been a tool for rural development, diversification and crop production stabilization for over 100 years. As of 2025, approximately 482,500 acres (ac) have been developed for irrigation.

Table 1. Acres Developed for Irrigation in Saskatchewan

Irrigation in Districts	122,000 ac
Private irrigation	265,500 ac
Non-Intensive: Backflood irrigation	95,000 ac
Total	482,500 ac

Irrigation Districts

An irrigation district consists of a group of irrigators who share common water supply infrastructure. Irrigation districts in Saskatchewan are required to follow the legislation that is defined in *The Irrigation Act, 2019*. There are currently 21 irrigation districts in Saskatchewan representing approximately 122,000 acres of irrigation.

Private Irrigation

Private irrigation refers to irrigation development located outside of a provincial irrigation district. Private irrigators must obtain the required provincial approvals and a water rights licence for their projects. As of 2025, approximately 265,500 acres have been developed as private irrigation in Saskatchewan.

Non-Intensive Irrigation

Non-intensive or back flood irrigation is the controlled application and release of water, at spring flood stage only, that increases soil moisture for crop use later in the year.

Irrigation Methods

The most common methods of irrigation in Saskatchewan include pivots, wheel moves, flood and backflood. There has been increasing interest in trickle and sub-surface irrigation, but these methods still only account for a very small percentage of irrigation across the province.

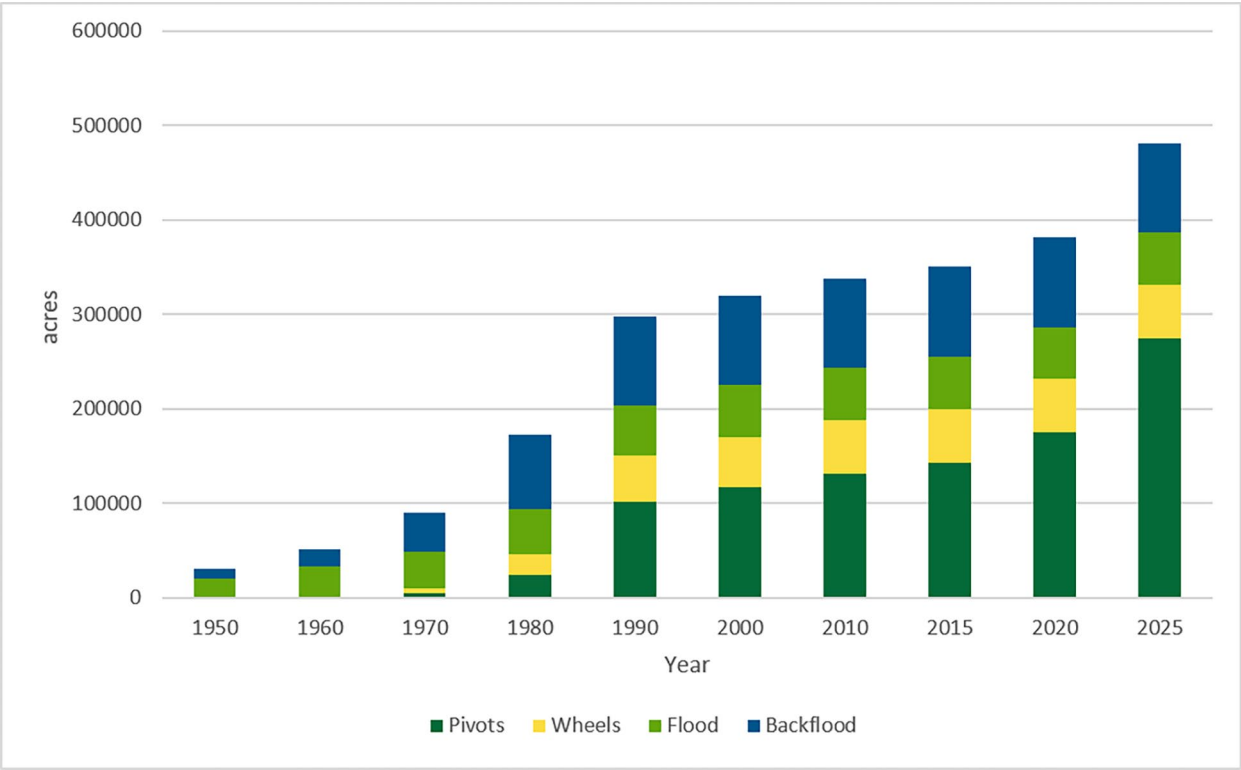


Figure 1. Irrigation by Method from 1950-2025

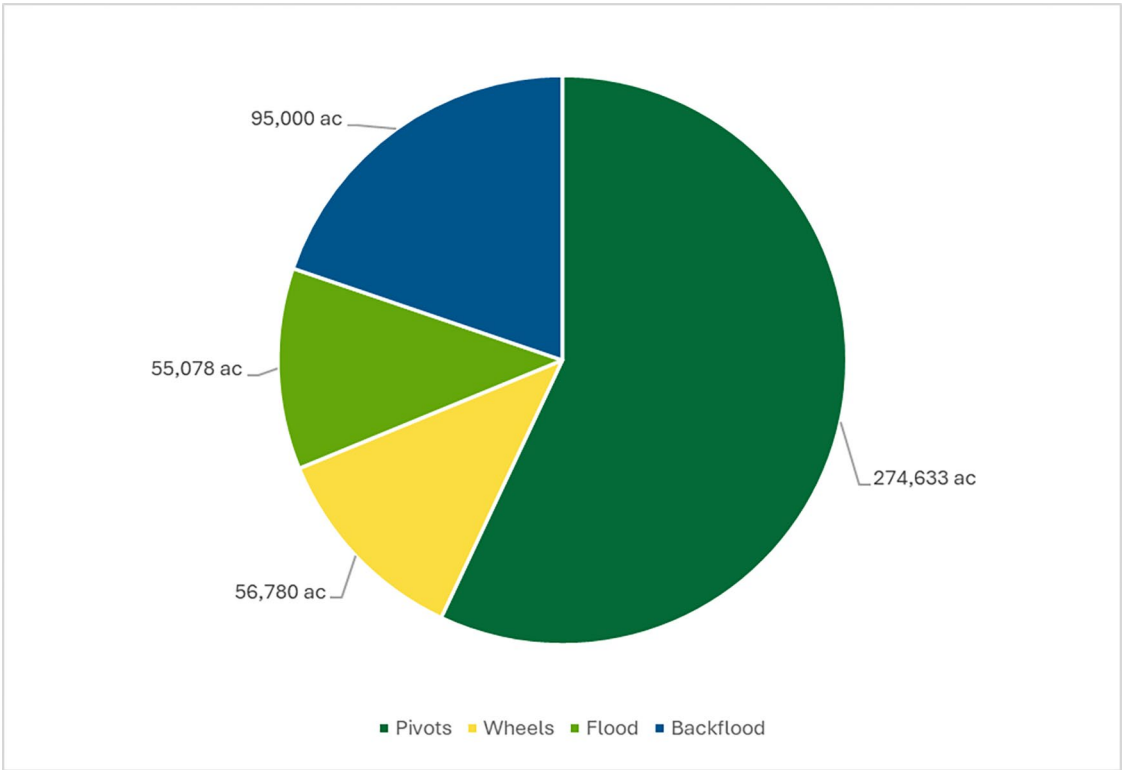


Figure 2. Irrigation by Method 2025

Table 2. Saskatchewan Irrigation Districts in 2025

Irrigation District	Acres
South Sask River	50,758
Riverhurst	19,999
Luck Lake	18,075
Rush Lake	5,358
Consul-Nashlyn	3,387
Baildon	3,260
Macrorie	3,388
Moon Lake	2,891
Grainland	2,359
Vidora	2,415
Herbert	1,685
Miry Creek	1,618
North Waldeck	1,614
Thunder Creek	1,422
Lodge Creek	971
Middle Creek	913
Chesterfield	629
Northminster	1,572
Ponteix*	0
Vanguard**	0
Qu'Appelle South***	0

* Has been decommissioned due to deteriorating water quality. The irrigators in the area currently have individual projects from Notukeu Creek.

** In process of being wound up.

***Established as an irrigation district but have no developed irrigation.

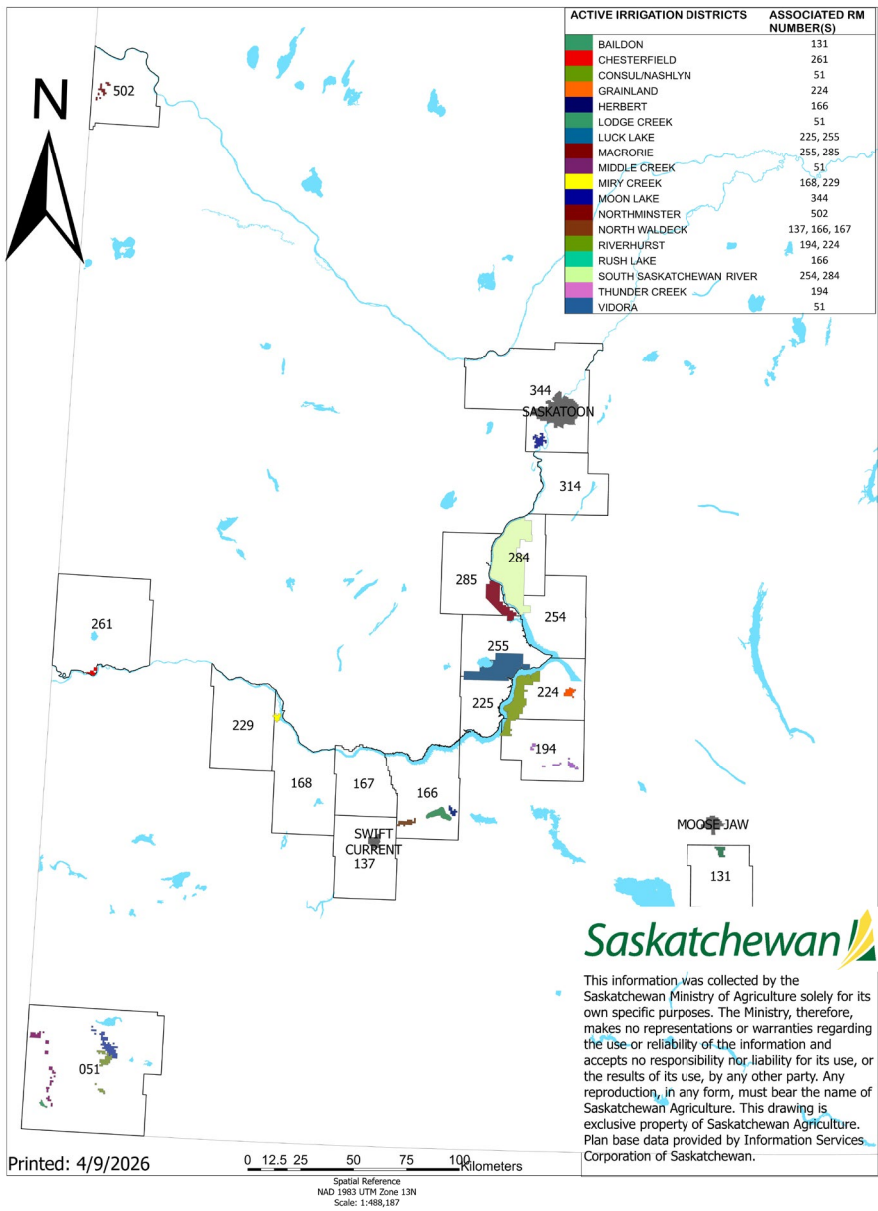


Figure 3. Saskatchewan Irrigation Districts and Associated Rural Municipalities

3. Irrigation Crop Mix

The Ministry of Agriculture conducts an annual Irrigated Crop Mix Survey in the general areas around Lake Diefenbaker. The irrigated areas included in this survey have gradually increased over the last few years. In 2025, the ministry surveyed five irrigation districts encompassing approximately 93,000 acres, as well as approximately 58,000 acres of private irrigation around Lake Diefenbaker and the South Saskatchewan River south of Saskatoon.

Crops are categorized into five classes: cereals, oilseeds, pulses, forage and specialty crops. Cereals include wheat/durum, barley/oats and grain/silage corn. Oilseeds include canola, mustard and flax. Specialty crops include potato, turf, fruit, vegetables and seed canola. Pulse crops surveyed are dry beans, field peas, lentil, chickpeas and faba beans. Lastly, forage crops surveyed include alfalfa and grass.

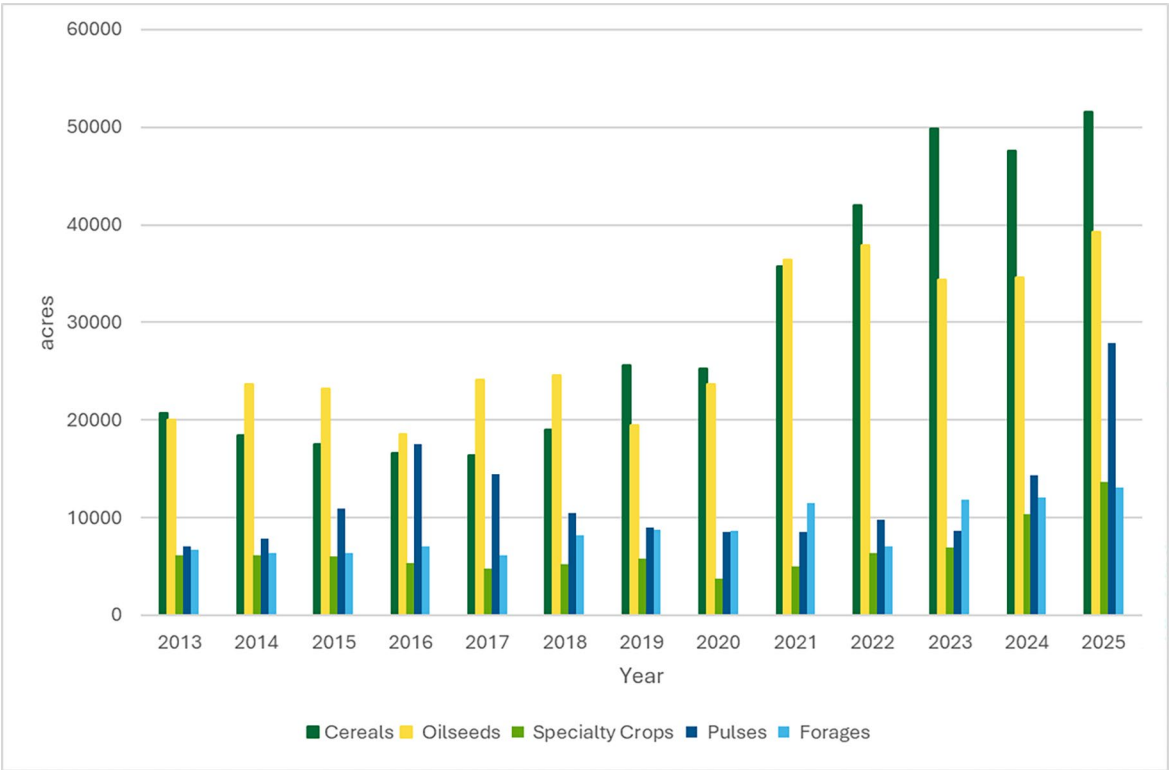


Figure 4. Irrigated Crop Mix Survey by Class from 2013-2025

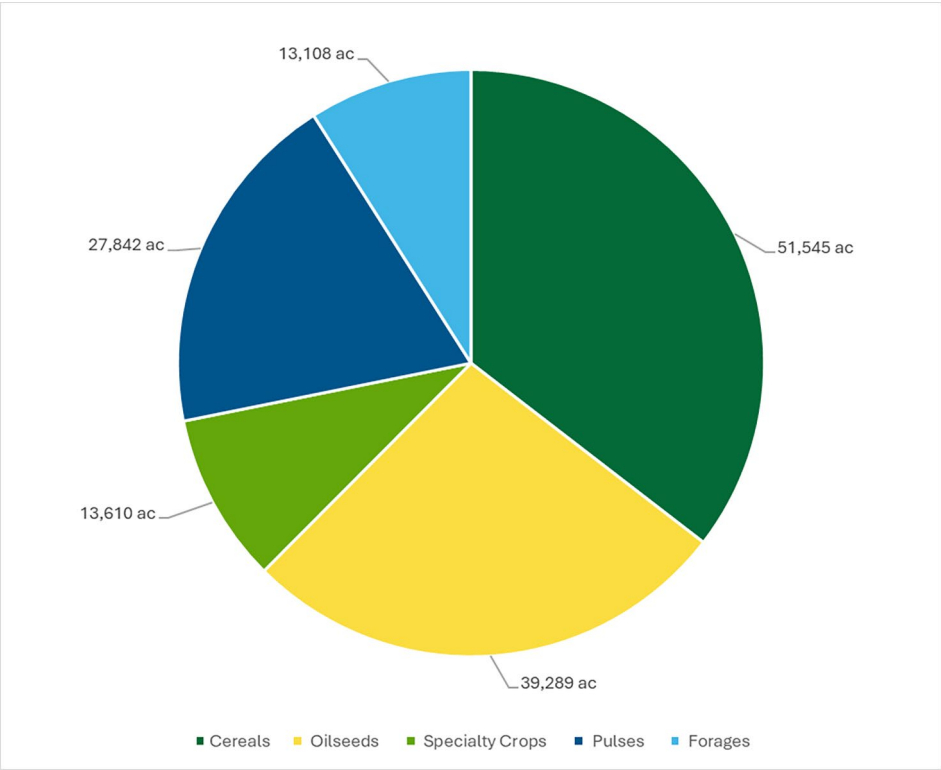


Figure 5. Irrigated Crop Mix by Class in 2025

Table 3. 2025 Irrigated Crop Mix Survey (Acres)

	Select Irrigation Districts around Lake Diefenbaker						Select Non-District Areas			
	RID	LLID	SSRID	GID	MID	MLD	Non-District	TOTAL	CROP %	CLASS%
Cereals:										
Wheat/Durum	7,633	6,171	13,188	87	1,096	212	17,324	45,712	30.2%	38.0%
Barley/Oats	0	732	1,876	100	0	81	5,930	8,719	5.8%	
Grain/Silage Corn	101	237	848	0	0	0	1,929	3,114	2.1%	
Oil Seeds:										
Canola	5,553	1,099	13,495	634	1,813	710	11,757	35,061	23.2%	26.0%
Mustard	0	0	210	0	0	0	0	210	0.1%	
Flax	224	781	999	0	121	0	1,894	4,019	2.7%	
Pulses:										
Dry Bean	4,775	2,995	746	754	0	0	5,255	14,525	9.6%	18.4%
Field Peas	601	1,105	3,687	86	124	0	1,602	7,205	4.8%	
Lentil	226	890	810	0	0	0	495	2,421	1.6%	
Faba Bean	161	257	84	0	0	0	2,114	2,616	1.7%	
Chickpeas	0	0	0	0	0	0	1,075	1,075	0.7%	
Forage:										
Alfalfa/Grass	392	732	4,225	809	307	223	6,421	13,108	8.7%	8.7%
Specialty Crops:										
Potato	327	801	5,108	0	0	0	790	7,026	4.6%	9.0%
Turf	0	0	0	0	0	211	0	211	0.1%	
CSIDC/Research	0	0	357	0	0	0	114	471	0.3%	
Fruit	0	0	0	0	0	185	0	185	0.1%	
Vegetables	0	0	1,598	0	0	30	272	1,900	1.3%	
Seed Canola	0	2,666	0	0	0	0	890	3,556	2.3%	
Canary seed	0	0	0	0	0	0	261	261	0.2%	
Total Acres	19,992	18,463	47,230	2,470	3,462	1,653	58,123	151,394		

Riverhurst Irrigation District (RID), Luck Lake Irrigation District (LLID), South Saskatchewan River Irrigation District (SSRID), Grainland Irrigation District (GID), Macrorie Irrigation District (MID), Moon Lake Irrigation District (MLID) and select non-district irrigation around Lake Diefenbaker and South Saskatchewan River.

Table 4. Irrigated Crop Mix by Percentage of Land Surveyed from from 2016-2025

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Cereal	25	25	28	37	36	37	41	45	40	39
Oilseed	29	37	36	28	34	38	37	31	29	26
Pulse	27	22	16	13	12	9	10	10	12	18
Forage	11	9	12	13	12	12	7	11	10	9
Specialty Crop	8	7	8	8	5	5	6	6	9	9
Total Acres	65,050	65,853	67,480	68,647	69,794	97,151	103,136	111,607	118,854	151,394

*values noted in above table are in %

High-Value Crop Production

Figure 6 illustrates select high-value crops identified through the Irrigated Crop Mix Survey from 2013-2025. These crops include potatoes, dry beans, vegetables and seed canola. Potatoes and other vegetable crops have been trending upwards over the last five years. Dry bean acres have been shown to fluctuate over the years and are generally correlated with price fluctuations. Part of the large jump in dry bean acres from 2024 to 2025 is attributed to the increase in area surveyed. Seed canola began to appear under irrigation in Saskatchewan in 2023 and production increased significantly in 2025.

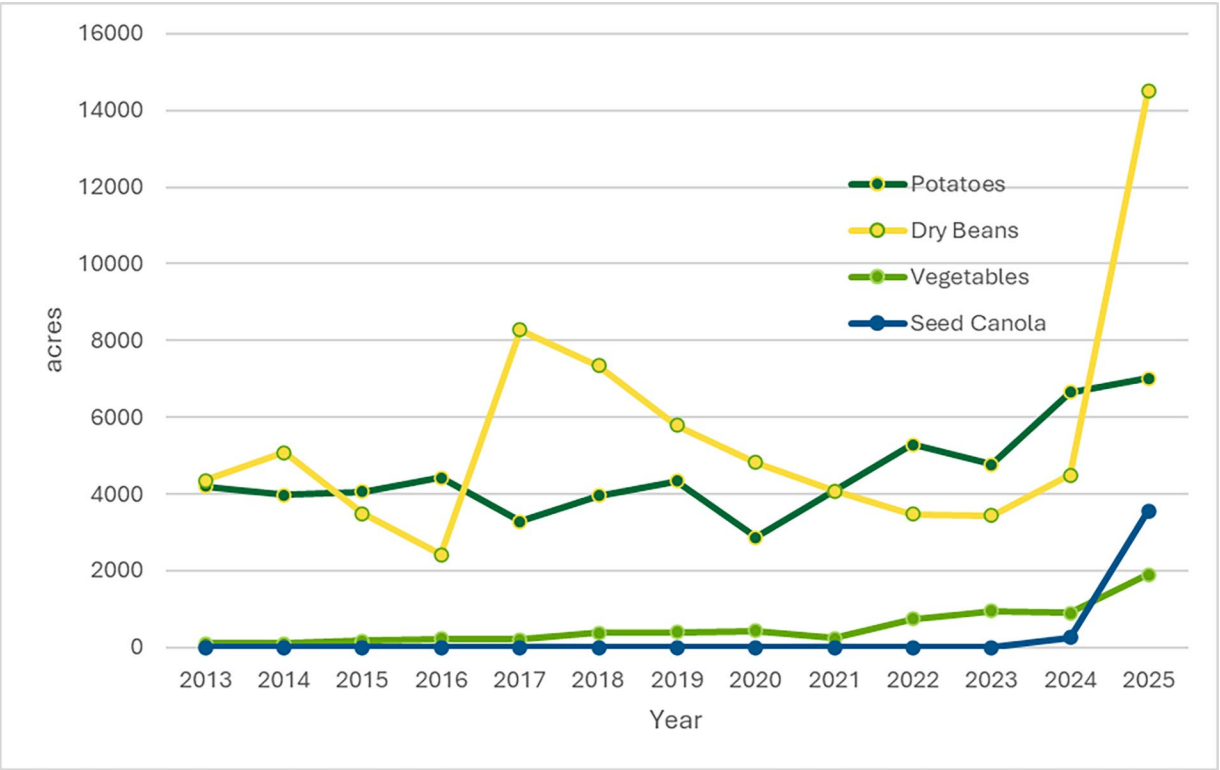


Figure 6. Total Acres of Select High-Value Crops from Irrigated Crop Mix Survey

4. Growing Season

The Outlook and Lake Diefenbaker region has a relatively long and warm growing season compared to other regions in Saskatchewan, with an average growing season of 115 frost-free days. Corn heat units (CHU) is a standard North American formula used to measure the heat needed by crops during the growing season. Corn heat units are calculated starting May 15 and accumulate until the first killing frost. The Outlook area has one of the highest average corn heat units (average total is just over 2,400) relative to other parts of the province. Nine years out of 10, the Outlook region will hit 2,100 corn heat units before the first killing frost. In combination with the heat units and frost-free days, this area has ideal conditions for growing longer season crops, such as high-value vegetable crops.

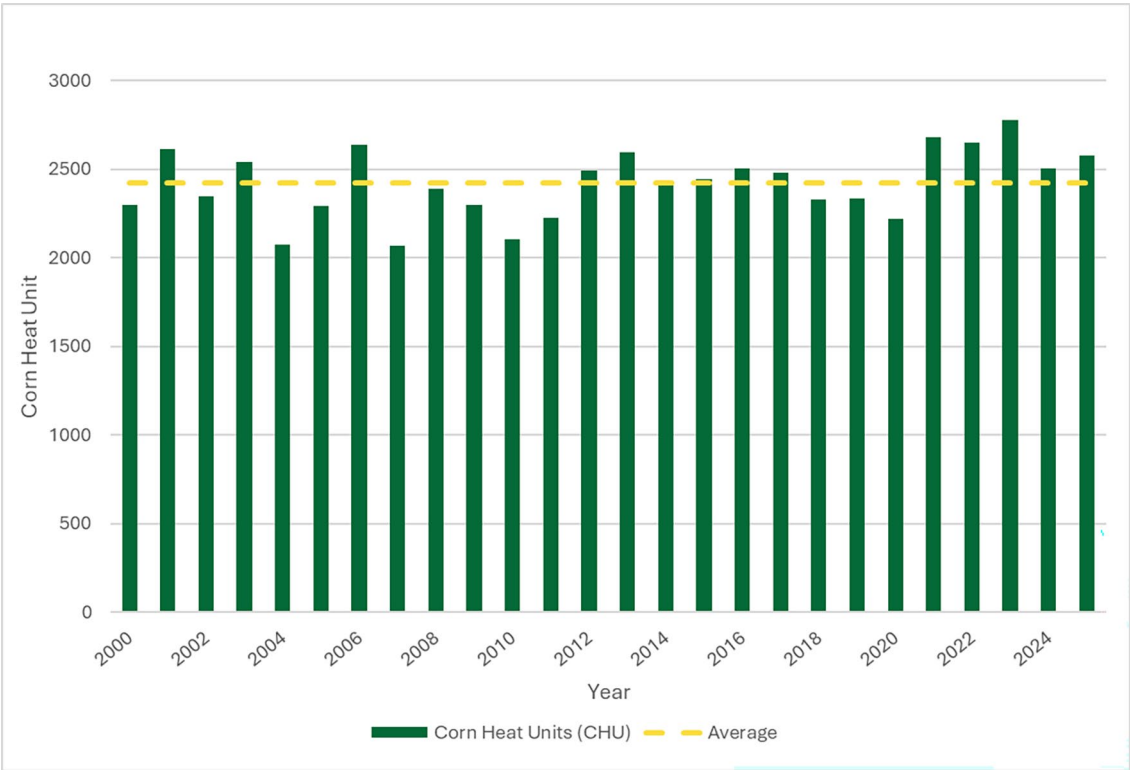


Figure 7. Corn Heat Units in the Outlook Region from 2000-2025

First Frost and Killing Frost

The average first frost date over the last 29 years is September 20. In nine out of 10 years, the first frost occurs after September 7. Killing frost is defined as a frost that is -2.5 C or lower. The average first killing frost date is September 29. In nine out of 10 years, the first killing frost occurs after September 14.

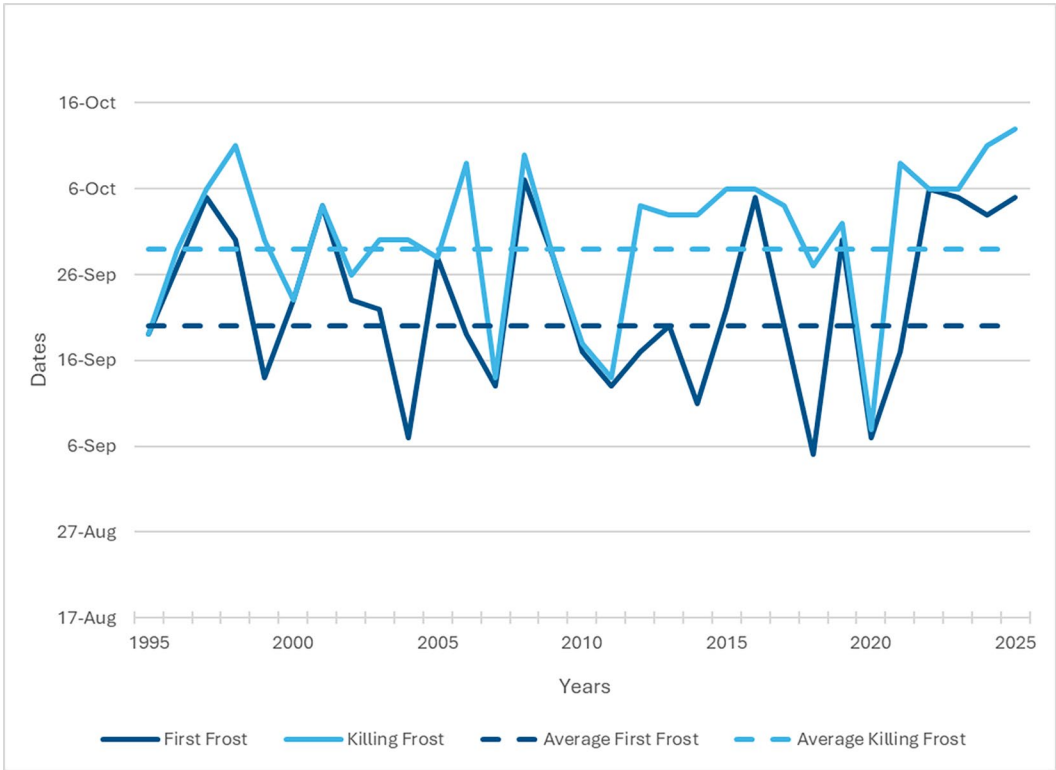


Figure 8. First Frost and Killing Frost in the Outlook Region from 1995-2025

Annual Precipitation

The town of Outlook is situated in a semi-arid climatic zone. The average annual precipitation measured at Outlook is 336 millimetres (mm). Annual precipitation can vary greatly in this region. Over the last 30-year period, the high for precipitation was 590 mm in 2010 and the low was 159 mm in 2021. The average growing season precipitation (May to September) for Outlook is 231 mm. Growing season precipitation ranged from 105 mm (2021) to 450 mm (2010) over the same period.

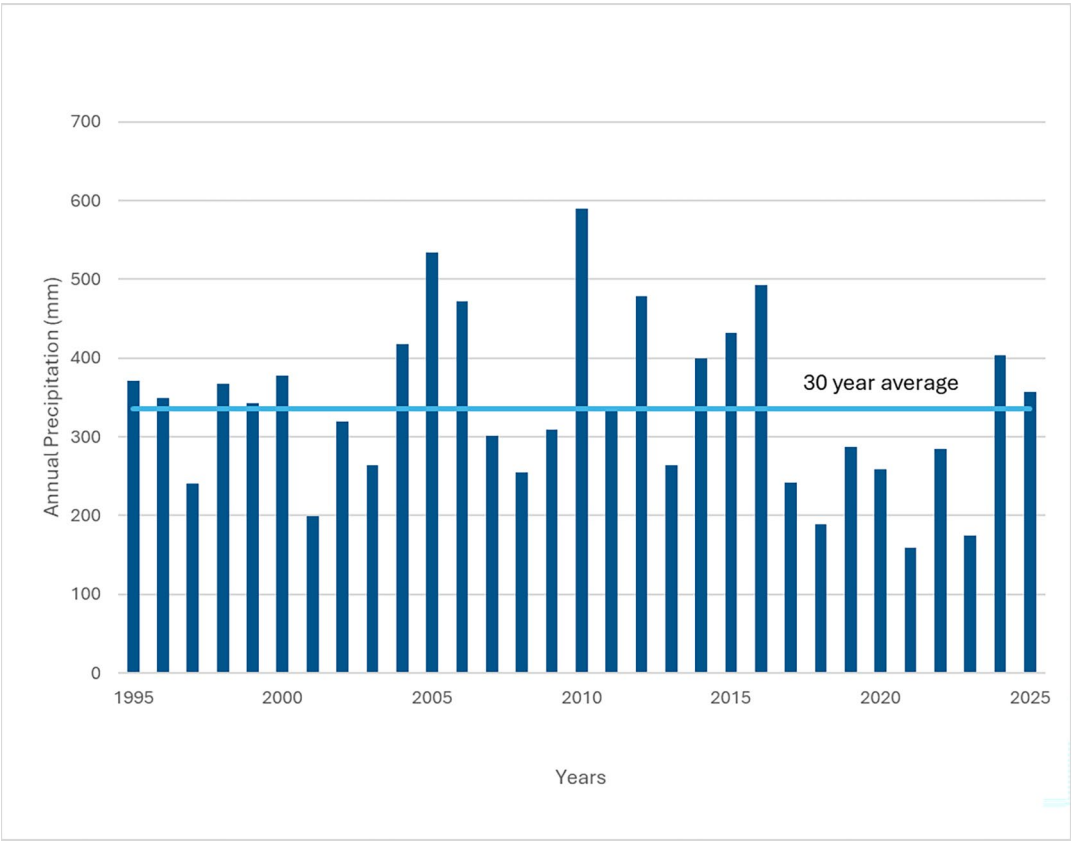


Figure 9. Annual Precipitation in the Outlook Region from 1995-2025

5. Irrigation Water Use

Crop Water Requirements

Evapotranspiration (ET) or crop water use for select crops is estimated based on meteorological data from the Environment Canada weather station in Outlook. Estimated ET is calculated for a reference crop (alfalfa) using the modified Penman-Montieth equation. Specific crop coefficients are then utilized for calculating ET estimates for other commonly grown crops.

Figure 9 shows the range of total water theoretically consumed for each crop over the last 12 years. Alfalfa ranges between 429-612 mm, wheat between 290-420 mm, canola between 329-468 mm, potatoes between 335-480 mm, dry beans between 265-373 mm and corn silage between 315-438 mm.

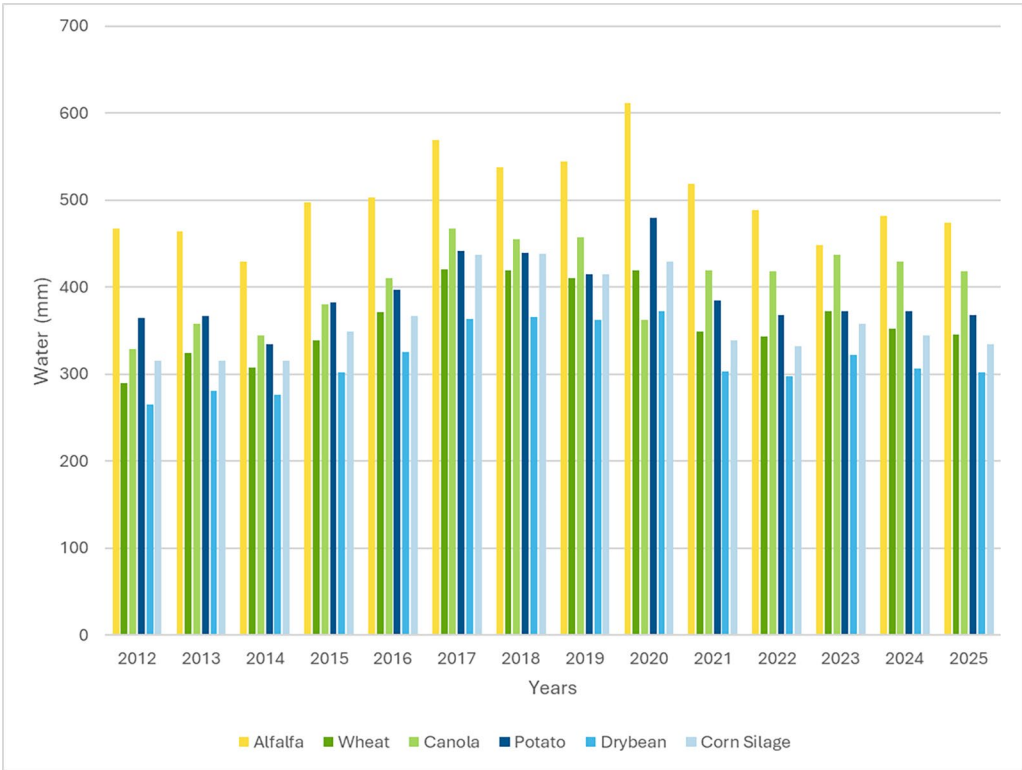


Figure 10. Theoretical Crop Water Consumption for Alfalfa, Wheat, Canola, Potato, Dry Bean and Corn Silage Grown Near Outlook

District Water Consumption

The province’s three largest irrigation districts are supplied with water from Lake Diefenbaker and have historically reported water usage to the Government of Saskatchewan on an annual basis. Figure 11 depicts water consumed on a per acre basis for SSRID, LLID and RID.

Water is delivered to irrigation producers in the SSRID predominantly through a network of open canals. Irrigation producers in LLID and RID are supplied directly from the lake via pressurized pipeline systems. The pressurized pipeline systems are not subject to the same evaporative losses, seepage losses, and return flows associated with canal-supplied irrigation projects.

Expectedly, annual water consumption within the districts is inversely correlated with annual precipitation. Over the last 30-year period, the highest water use reported in SSRID was in 2001 when an average of 19.2 inches per acre was consumed. The low mark for SSRID was in 2010 when an average of 2.3 inches per acre was consumed. The greatest water consumption for both LLID and RID came in 2003 when both districts applied an average of 11.5 inches per acre. The lowest usage for LLID was in 2010 when an average of 1.1 inches per acre was applied, and the low for RID occurred in 2016 when an average of 2.4 inches per acre was applied.

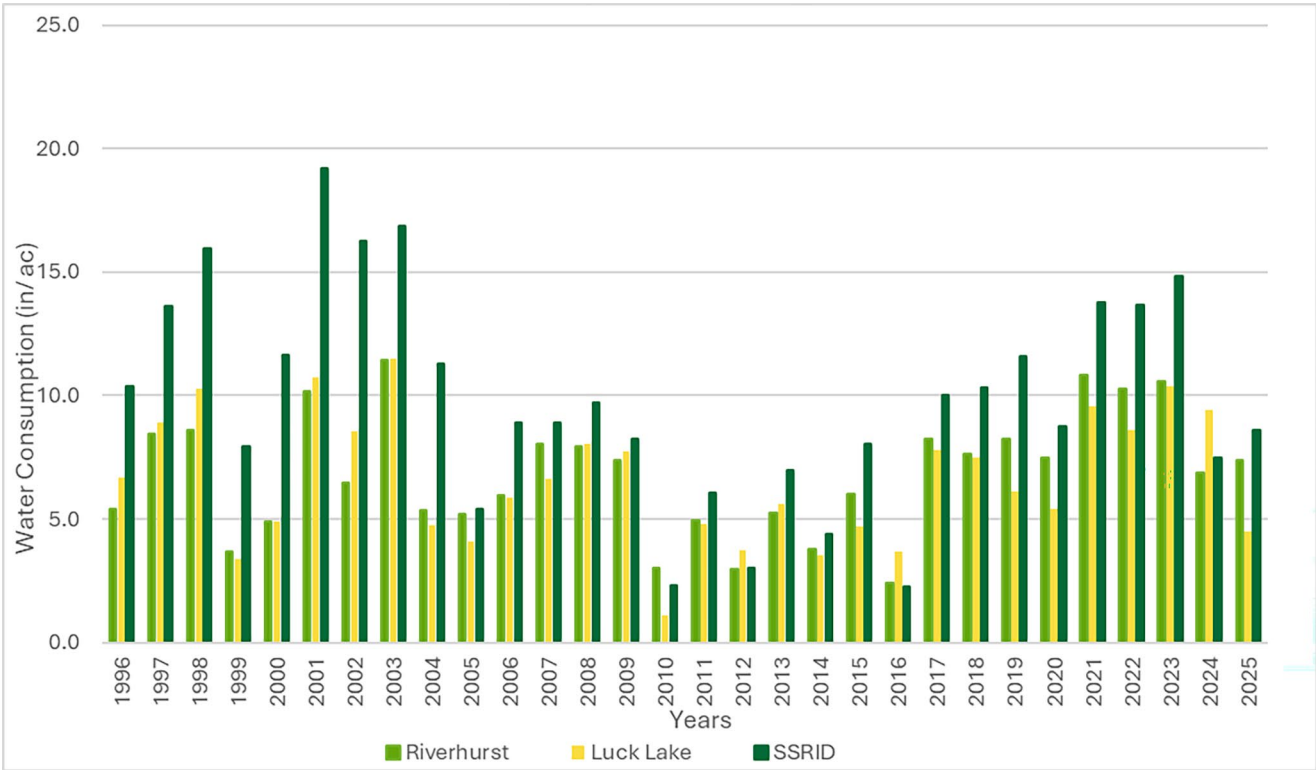


Figure 11. District Water Consumption for SSRID, LLID and RID 1996-2025

6. Sustainable Irrigation Development and Water Management

The Government of Saskatchewan is committed to developing irrigation in a sustainable manner. There are several different Acts and Regulations that oversee irrigation development in the province.

Ministry of Agriculture

The Irrigation Act, 2019 stipulates that all new irrigation projects must obtain an Irrigation Certificate prior to development. The Irrigation Certificate ensures that only appropriate lands are developed and suitable water supplies are used for irrigation. To receive an irrigation certificate, a parcel of land needs to be assessed for irrigation suitability with 13 different soil factors and seven landscape factors being considered. This helps to maximize the public benefit of water allocated for irrigation use while also helping to protect our land and water resources.

The Irrigation Act, 2019 and *The Irrigation Regulations, 2020* are tools that irrigation districts use to maintain compliance and operate in an efficient manner. There are several requirements and obligations within this legislation that provincial irrigation districts must comply with. Districts must hold at least one general meeting of their members in each fiscal year and submit the meeting minutes to the ministry. The districts must prepare a budget of total costs for the fiscal year, which includes administrative costs, operation and maintenance of infrastructure and irrigation replacement funds. The districts are required to submit annual reports to the ministry each fiscal year which includes a report from the annual general meeting, audited/reviewed financial reports, status of the irrigation replacement fund, an Irrigation Works Management Plan and a copy of the district bylaws. More information regarding the regulatory requirements can be found here: <https://www.saskatchewan.ca/business/agriculture-natural-resources-and-industry/agribusiness-farmers-and-ranchers/crops-and-irrigation/irrigation/irrigation-regulatory-requirements>.

The Irrigation Legislation Guide for Producers has been developed to support producers in navigating the regulatory requirements associated with the irrigation development process and to outline the responsibilities of the various agencies involved. This guide can be found online: <https://publications.saskatchewan.ca/api/v1/products/124801/formats/145652/download>.

Water Security Agency

The *Water Security Agency Act* establishes the Water Security Agency's (WSA) mandate to manage, administer, develop, control and protect Saskatchewan's water, watersheds and related land resources. This includes promoting the efficient use and conservation of water and maintaining its quality and availability for agricultural and other uses.

For irrigation development, WSA assesses water availability and administers water rights licences and approvals for water-related works. Applications are reviewed to consider the capacity of the proposed water source and potential effects on existing users, watersheds and future water needs. WSA also supports strategic irrigation expansion by evaluating water supplies, identifying infrastructure opportunities and constraints, and supporting and advancing larger multi-user projects. Through these activities, WSA supports sustainable irrigation development and the responsible management of Saskatchewan's water resources for current and future generations.

Lake Diefenbaker

Lake Diefenbaker is the largest body of water in southern Saskatchewan, stretching 225 kilometres in length and spanning two to three kilometres in width. At its Full Supply Level (FSL) of 556.9 metres in elevation, the lake has a mean depth of 22 metres and a maximum depth of 58 metres. Its surface area at FSL is 119,747 acres, with a total storage capacity of 7.6 million acre-feet. The usage on Lake Diefenbaker includes 2.7 percent for irrigation, while evaporation accounts for 3.3 percent, with annual average evaporative losses estimated at 219,000 acre-feet. Originally, the vision for the reservoir was to support 500,000 acres of flood irrigation at a 24-inch duty. At present, approximately 172,000 acres have been developed out of Lake Diefenbaker. The majority of this irrigation is center pivot, which is typically allocated half of what is allocated to flood irrigation due to higher water use efficiency.

The lake has the capacity to support further irrigation expansion while preserving vital habitats. It is home to 26 native and stocked fish species and hosts the largest single-site breeding population of Piping Plover which is a protected species under the federal Endangered Species Act.



