Production of principal field crops, July 2020

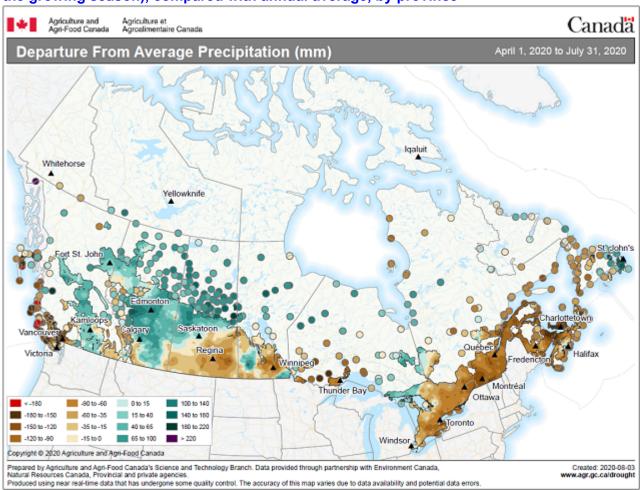
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Canadian farmers are projected to harvest more wheat, corn for grain, barley and oats this fall compared with last year, but less canola and soybeans, according to recent yield models using satellite technology.

To alleviate stress on farmers during the COVID-19 pandemic, Statistics Canada relied upon proven satellite technology to model preliminary crop yields and harvests for 2020. These methods have successfully been used to produce September yield estimates since 2016, and last year replaced the method used to produce the July yield estimates for Manitoba.

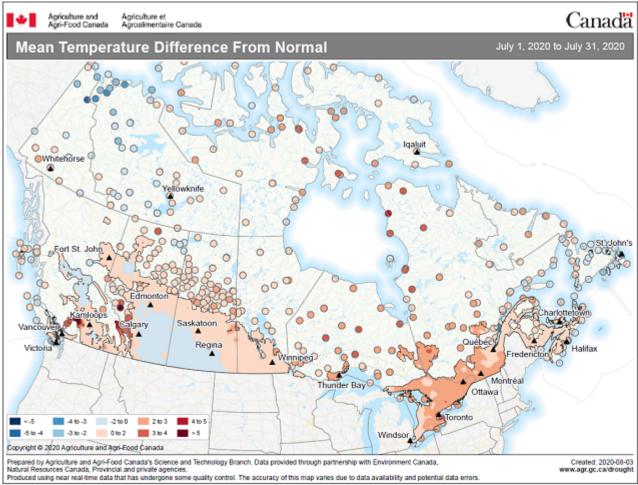
Farmers in parts of the Prairies had to contend with excessive rain and lower-than-average temperatures this summer, while it was hot and dry throughout most of Eastern Canada.

Map 1 – Departure from average precipitation (in millimetres) from April 1 to July 31, 2020 (during the growing season), compared with annual average, by province



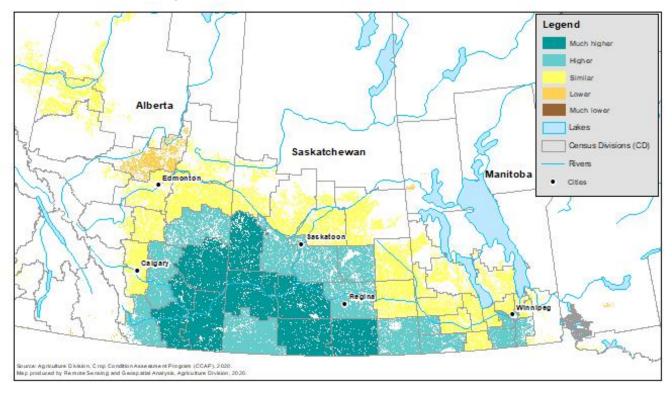


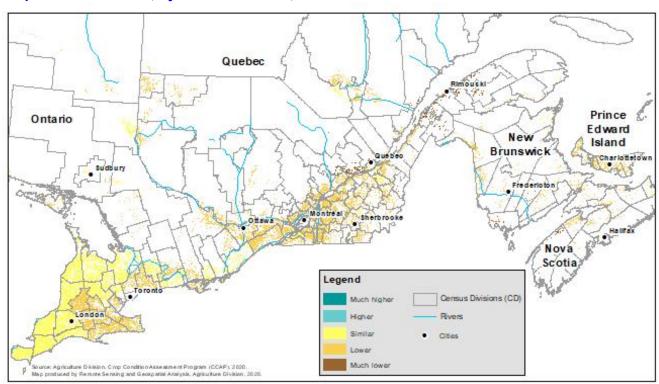
Map 2 – Mean temperature difference from normal (in degrees Celsius) from July 1 to 31, 2020, by province



Data from the Crop Condition Assessment Program published by Statistics Canada indicate that overall plant health in the Prairie provinces was equal to or much better than normal for most of the region, indicating the possibility of higher-than-normal yields. Conversely, plant health in Eastern Canada was worse than average and has worsened considerably since early June, likely because of the lack of rain.

Map 3 – Vegetation growth index as of the week of July 20, 2020 (during data collection), compared with normal, by census division, for Western Canada





Map 4 – Vegetation growth index as of the week of July 20, 2020 (during data collection), compared with normal, by census division, for Eastern Canada

Wheat production expected to increase as a result of higher harvested area and yields

Nationally, wheat production is projected to increase 10.5% year over year to 35.7 million tonnes in 2020, given higher anticipated yields (+8.0% to 53.8 bushels per acre) and higher harvested area (+2.3% to 24.4 million acres).

The projected increase in wheat area is largely attributable to the durum wheat and winter wheat area remaining after winterkill, which offset the decrease in spring wheat area.

Higher yields for all types of wheat nationally are also expected to contribute to the production increase.

Wheat yield in Saskatchewan is expected to increase 3.8% to 46.1 bushels per acre in 2020, while harvested area is projected to rise 0.4%. This is anticipated to result in a 4.3% production increase to 15.8 million tonnes.

Harvested area is expected to edge up 0.2% to 7.2 million acres in Alberta, while yields are anticipated to rise 13.8% to 59.5 bushels per acre. This is projected to bring total wheat production up 14.0% year over year to 11.7 million tonnes.

Wheat production in Manitoba is projected to rise 4.2% to 5.2 million tonnes in 2020, the result of higher harvested area (+0.7% to 3.1 million acres) and higher yields (+3.5% to 61.9 bushels per acre).

Wheat production in Ontario (the majority of which is winter wheat) is projected to rise by two-thirds (+66.7% to 2.5 million tonnes) year over year, as a result of higher harvested area (+53.1%) and yields (+8.9%). The expected rise in harvested area is attributable to less winterkill because of a mild winter in the province.

Canola yields projected to increase but production to decrease as a result of lower harvested area

Nationally, canola production is expected to decline 0.4% to 19.4 million tonnes in 2020, with higher yields (+1.2% to 41.6 bushels per acre) offset by lower harvested area (-1.6% to 20.6 million acres).

Saskatchewan, the largest canola-producing province, is expected to produce 4.2% less canola in 2020, at 10.5 million tonnes. Yields are projected to decrease 0.2% to 41.1 bushels per acre, while harvested area is expected to fall 3.9%.

In Alberta, yield is expected to rise 8.9% to 43.9 bushels per acre and harvested area to decline 0.3% to 5.8 million acres, resulting in an 8.6% production increase.

Canola production in Manitoba is expected to decrease 1.9% to 3.0 million tonnes. The projected decline in yields (-6.0% to 39.5 bushels per acre) is expected to offset the increase in harvested area (+4.3% to 3.3 million acres).

Corn for grain production projected to increase as a result of higher yields

Nationally, corn for grain production is projected to rise 3.9% to 13.9 million tonnes in 2020, with an anticipated increase in yield (+7.5% to 158.2 bushels per acre) offsetting lower harvested area (-3.4% to 3.5 million acres).

In Ontario, the largest corn-for-grain-producing province, production is expected to increase 1.1% to 8.7 million tonnes, as a result of higher harvested area (+0.3% to 2.2 million acres) and yields (+0.8% to 159.6 bushels per acre).

Corn for grain production in Quebec is projected to rise 8.8% to 3.7 million tonnes. Yields in Quebec are expected to increase 15.3% to 163.1 bushels per acre, while harvested area is expected to fall 5.7% to 885,000 acres.

Soybean production expected to decrease

Nationally, soybean production is projected to decrease 1.4% year over year to 6.0 million tonnes in 2020, as a result of lower harvested area (-12.5% to 4.9 million acres). Yields are expected to increase 12.6% to 44.6 bushels per acre.

Farmers in Ontario are projected to produce 4.0% less soybeans in 2020, at 3.6 million tonnes. Harvested area is expected to fall 8.0% to 2.8 million acres, while yield is anticipated to rise 4.5% to 46.1 bushels per acre.

In Manitoba, soybean production is projected to increase 2.6% to 1.2 million tonnes in 2020. Harvested area is expected to decrease 19.7% to 1.1 million acres, likely as a result of Manitoba farmers reducing seeded area following several years of lower yields because of dry conditions. However, yields are projected to rise 27.7% year over year to 37.3 bushels per acre this year, reversing the trend.

In Quebec, soybean production is projected to increase 14.0% to 1.2 million tonnes as a result of sharply higher yields (+16.7% to 49.7 bushels per acre), which will more than offset the projected 2.4% decrease in harvested area.

Barley and oat production projected to rise

Barley production is expected to rise 1.6% year over year to 10.5 million tonnes in 2020, driven by higher harvested area (+0.3% to 6.8 million acres) and higher yields (+1.3% to 71.7 bushels per acre).

Oat production is projected to rise 6.1% to 4.5 million tonnes. Harvested area is expected to increase 6.3% to 3.1 million acres, and yields are expected to edge down 0.2% year over year to 94.8 bushels per acre in 2020.

Note to readers

This release provides the preliminary production estimates for 2020, as well as revised production data for 2019 if applicable. The July 2020 estimates are produced using model-based data.

As a result of the ongoing COVID-19 pandemic, the Agriculture Division has worked to leverage the knowledge gained in past modelling projects to meet Statistics Canada's goal of providing reliable statistics to Canadians without direct contact with respondents. The approaches employed in producing these estimates are in line with the AgZero project underway at Statistics Canada, which aims to produce high-quality estimates using modelling, administrative data and other non-traditional survey-based approaches.

Field crop surveys produce data for Quebec, Ontario, Manitoba, Saskatchewan and Alberta for all five survey cycles during the crop year (from March to December). However, data are collected twice a year (in the June field crop survey on seeded areas and in the November field crop survey on final crop production) for Newfoundland and Labrador, Prince Edward Island, Nova Scotia, New Brunswick, and British Columbia, which represent between 2% and 4% of national totals.

As of July 2014, for these provinces, July production estimates are calculated using the final estimates of the last three crop years. The harvested area is first estimated based on the ratio obtained from the sum of harvested areas of the last three years over the sum of the seeded areas of the last three years. This average ratio is applied to the current year's seeded acreage from the June survey. This harvested area is then multiplied by the average yield of the last three years to estimate production.

Final production estimates for 2020 will be released on December 3, 2020, and are subject to revision for two years.

On September 14, 2020, Statistics Canada will release modelled yield and production estimates for field crops in Canada. These data are derived from remote sensing, survey and agroclimatic data sources.

Model-based principal field crop estimates are calculated according to an approach developed by Statistics Canada in close partnership with Agriculture and Agri-Food Canada. These yield estimates are based on a model that incorporates coarse resolution satellite data from Statistics Canada's Crop Condition Assessment Program, data from Statistics Canada's field crop reporting series, and agroclimatic data

A methodology report describing the original yield model used at Statistics Canada is available online.

Starting in 2019, an extended yield model based on parcel level crop insurance data received from Manitoba Agriculture Services Corporation was used for Manitoba. For more information regarding the extended yield model, please visit An Integrated Crop Yield Model Using Remote Sensing, Agroclimatic Data and Crop Insurance Data.

Additional data sources

Readers are invited to visit the Crop Condition Assessment Program web application, which is an additional tool to assess the growing conditions of field crops during the crop year. Readers can monitor a vegetation index of crop land on a weekly basis.

"Crop Reporting Survey at a Glance," an easy-to-print chart that provides an overview of the survey cycle, is now available.

Table 1
July estimates of production of principal field crops

	2018	2019	2020	2018 to 2019	2019 to 2020	
	thous	thousands of tonnes			% change	
Total wheat ¹	32 201	32 348	35 740	0.5	10.5	
Durum wheat	5 745	4 977	6 926	-13.4	39.2	
Spring wheat	23 942	25 670	25 935	7.2	1.0	
Winter wheat	2 514	1 701	2 879	-32.4	69.3	
Barley	8 380	10 383	10 546	23.9	1.6	
Canary seed	158	175	150	11.0	-14.4	
Canola	20 594	19 477	19 403	-5.4	-0.4	
Chick peas	311	252	205	-19.2	-18.6	
Corn for grain	13 885	13 404	13 928	-3.5	3.9	
Dry beans	341	317	328	-7.1	3.5	
Dry field peas	3 581	4 237	4 996	18.3	17.9	
Fall rye	226	326	402	44.1	23.6	
Flaxseed	492	486	553	-1.3	13.8	
Lentils	2 092	2 242	2 805	7.2	25.1	
Mustard seed	174	135	91	-22.5	-32.3	
Oats	3 436	4 237	4 498	23.3	6.1	
Soybeans	7 417	6 045	5 962	-18.5	-1.4	
Sunflower seed	57	63	95	9.8	51.5	

^{1.} The "Total wheat" category represents the sum of winter wheat, spring wheat and durum wheat.

Note(s):

The estimates in this table have been rounded to the nearest thousand. The percentage changes reflect the unrounded estimates. Wheat types may not add up to total wheat as a result of rounding.

Source(s): Table 32-10-0359-01.

Available tables: table 32-10-0359-01.

Definitions, data sources and methods: survey number 3401.

For more information, or to enquire about the concepts, methods or data quality of this release, contact us (toll-free 1-800-263-1136; 514-283-8300; **STATCAN.infostats-infostats.STATCAN@canada.ca**) or Media Relations (613-951-4636; **STATCAN.mediahotline-ligneinfomedias.STATCAN@canada.ca**).