Environment, Energy and Transportation Statistics Division

Agricultural Water Survey, 2014

Confidential when completed

Si vous préférez recevoir ce questionnaire en français, veuillez composer le 1-800-461-1662.

Correct pre-printed information,
if necessary, using the corresponding
boxes below.

	Farm name (if app	olicable)	
C0002			
	Telephone numb	er	
C0017			
	Surname or famil	y name	
C0028			
	First name		
C0008			
	Address (R.R., Bo	ox no., nu	mber and street name)
C0004			
	City		
C0005			
	Province		Postal code
C0006		C0007	

Authority

This is a voluntary survey conducted under the authority of the Statistics Act, Revised Statutes of Canada, 1985, Chapter S19. Your cooperation tr at th collected in this sur

Survey purpose

The Agricultural Water Survey is conducted to gather information on water use, irrigation methods and practices, and sources and quality of water used for agricultural purposes.

This survey is part of the Canadian Environmental Sustainability Indicators (CESI) program. The data collected will be used in CESI's reporting activities and to inform water use policy and development of programs for Canadian irrigators. Statistics Canada will also use the survey results to report on total water use by sector in Canada. Your information may also be used by Statistics Canada for other statistical and research purposes.

Confidentiality

Statistics Canada is prohibited by law from releasing any information it collects which could identify any person, business, or organization, unless consent has been given by the respondent or as permitted by the Statistics Act. Statistics Canada will use the information from this survey for statistical purposes.

Data linkage

To enhance the data from this survey and to minimize the reporting burden, Statistics Canada may combine it with information from other surveys or from administrative sources. Data-sharing agreements

To reduce respondent burden, Statistics Canada has entered into data-sharing agreements with federal, provincial and conial cover interior ganizations, which have agreed to p the cata conficential and use them only for statistical will only share data from this ses. Stati Cana survey with those organizations that have demonstrated a requirement to use the data.

For this survey, there are agreements pursuant to Section 12 of the Statistics Act with: Agriculture and Agri-Food Canada; Environment Canada; Prince Edward Island Department of Agriculture and Forestry; New Brunswick Department of Agriculture, Aquaculture and Fisheries; Institut de la statistique du Québec; Manitoba Agriculture, Food and Rural Development; Saskatchewan Ministry of Agriculture; and Alberta Agriculture and Rural Development.

Under Section 12, you may refuse to share your information with any of these organizations by writing a letter of objection to the Chief Statistician and returning it with the completed questionnaire. Please specify the organizations with which you do not want to share your data.

For agreements with provincial government organizations, the shared data will be limited to information pertaining to business establishments located within the jurisdiction of the respective province.

YOUR PARTICIPATION IN THIS SURVEY IS IMPORTANT REGARDLESS OF HOW MUCH IRRIGATION WAS DONE DURING THE GROWING SEASON.

4-2300-110.1: 2014-05-14



Instructions for completing this questionnaire

Who should complete this survey?

This survey is addressed to the farm operation and is to be completed by a person that has good knowledge of the irrigation activities practiced on this farm.

- If exact values are not available, please provide estimates.
- Comments on any part of the survey should be provided in the space on the second-last page of the questionnaire.
- Please return the completed questionnaire within 30 days of receipt by mail, using the enclosed, postage paid envelope.

Cropland and Irrigation in 2014

Please refer to the 2014 gloving season when answering the following questions.

Irrigation is defined as applying water to the soil to assist the growing of crops in dry areas during periods of inadequate rainfall; to prevent soil compaction or erosion; or to protect plants against rest

Include:

 all irrigated land, producing or non-producing, used for forage crops, fruits, vegetables, field crops, hay and improved pasture, on owned land or land rented or leased from others

Exclude:

- land rented or leased to others
- summerfallow
- Christmas trees
- greenhouses, nurseries and sod operations
- land drained by a drainage system that is never irrigated

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Irrigating operations

Irrigating is defined as applying water to the soil to assist the growing of crops in dry areas during periods of inadequate rainfall; to prevent soil compaction or erosion; or to protect plants against frost.

pe	eriods of inadequate rainfall; to preve	ent soil compaction or er	osion; or to protect plants against frost.
1.	Have you ever irrigated your cro	pps?	
	^{CO201} 1 Yes		
			se return the questionnaire within 30 closed postage paid envelope.
2.	Did you irrigate your crops in 20)14?	
	^{CO101} 1 Yes ³ No	0	
3.	In 2014, were you unable to irrigat Mark all that apply:	e for any length of time	because of any of the following issues?
	Shortage of surface wa	ater	
	Shortage of undergrou	nd water (include shallo	w wells and deep wells)
	Poor water quality		
	C0304 High tost of John hing	MATION	CODV
	cosos Irrigation ban	VIATION	COFI
	Other issue(s), specify	C0307	
	cosos III is sues prevented in	gation for any erigth of	REPORT
	f you did not irrigate at all in 2014, paing the enclosed, postage paid enve		
4.	Will you be using acres, hectar This same unit should be used		
	C0401 1 Acres 2	Hectares	³ Arpents
5.	What was the total land area of or non-producing, that irrigation		I pasture on this operation, producing n 2014?
	What unit of measure will you use This same unit should be used Unit of measure used for quantity or	d throughout the surv	
0604	4 01 Inches 05	Total gallons (US)	⁰⁹ Imperial gallons per acre
	02 Millimetres 06	Total litres	¹⁰ US gallons per acre
	03 Total acre-feet 07	Total cubic metres	Other; please specify:
	⁰⁴ Total gallons (imperial) ⁰⁸	Acre-feet per acre	C0604_1

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		Irrigation	on volumes	s – Forage cı	rops		
7a.	Did you produce or grow forage crops on this operation during the 2014 growing season? Include hay, improved pasture and silage.						
	^{CO601} 1 Yes	³ No	→ Go to que	estion 8a			
7b.	Did you apply irrigat	ion to forage	e crops on t	his operation (during the 201	4 growing season?	
	c0602 1 Yes	³ No	→ Go to que	estion 8a			
7c.	What area of land w Specify the total land and question 4. A land area counted once. For exam additional 50 acres in A	rea that received in that received in the treceived in the treceived in the tree in the tr	 ed irrigation in irrigation multi gated 100 acre	2014 using the ple times during es in July and th	unit of measure s the season shou e same 100 acres	uld only be	
	- INI	FORM	ΛΔΤΙ		OPV		
7d.	How much water was Please provide the qual specified in question 4.	ntity of water, a	as well as the	rrigated land are	ea using the unit	~	
	2014		Quantity of	water		Irrigated land area	
	April	C0605			C0613		
	Мау	C0606			C0614		
	June	C0607			C0615		
	July	C0608			C0616		
	August	C0609			C0617		
	September	C0610			C0618	<u> </u>	
	October	C0611			C0619		
	TOTAL C0612	2					

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		Irri	gatio	n volu	mes -	Field c	rops		
8a.	Did you produce or grow field crops , including potatoes , on this operation during the 2014 growing season? Exclude hay, improved pasture and silage. If needed, see the crop guide at the end of the questionnaire.								
	^{C0701} 1 Yes	3	No 🗲	Go to	questic	n 9a			
8b.	Did you apply irrigati growing season?	ion to fiel	d crop	s, incl	uding	ootatoes	s, on this opera	ation during the 2014	-
	^{C0702} 1 Yes	3	No 🗲	Go to	questic	n 9a			
8c.	What area of land of Specify the total land a question 4. A land area counted once. For example additional 50 acres in A	rea that re that recei mple, if yo	ceived ved irrig u irrigat	irrigatio gation m ed 100	n in 201 nultiple i acres in	4 using th imes duri July and	ne unit of measuring the season sl the same 100 ac	re specified in hould only be	
 8d.	How much water w following months? Please provide the quaspecified in glestion is		ter, as	well as t	he irriga	ŕ	.	·	
	2014		(Quantity	of wat	∍r		Irrigated land area	
	April	C0705					C0713		
	May	C0706					C0714		
	June	C0707					C0715		
	July	C0708					C0716		
	August	C0709					C0717		
	September	C0710					C0718		
	October	C0711					C0719		
	TOTAL CO71	2							

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		Ir	rigati	on vo	lumes	s – Fr	uit cro	ps	
9a.	Did you produce or grow fruit crops on this operation during the 2014 growing season? If needed, see the crop guide at the end of the questionnaire.								
	^{C0801} 1 Yes	3	No ·	→ Go t	to ques	tion 1	Оа		
9b.	Did you apply irrigat	ion to f	ruit cr	ops o	n this o	perat	ion duri	ng the 2014	growing season?
	^{C0802} 1 Yes	3	No	→ Go t	to ques	tion 1	Оа		
9c.	What area of land w	as irriga	ation a	pplied	to for	fruit	crops?		
	Specify the total land a question 4. A land area counted once. For example additional 50 acres in A	that rec	eived ir ou irrig	rigation ated 10	multip 00 acres	le time in Jul	s during y and the	the season sh same 100 ac	nould only be
	C0803								
9d.	How much water v Please provide the qua specified in question 4.				s the iri	rigated	land are		nit of measure
	DO N	10	Τι	JS	E 1	0	RE	EPOF	?T
	2014			Quant	ity of w	ater			Irrigated land area
	April	C0805						C0813	
	Мау	C0806						C0814	
	June	C0807						C0815	
	July	C0808						C0816	
	August	C0809						C0817	
	September	C0810						C0818	
	October	C0811						C0819	
	TOTAL	2							

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Irrigation volumes - Vegetable crops

10a.	a. Did you produce or grow vegetable crops , excluding potatoes , on this operation during the 2014 growing season? <i>If needed, see the crop guide at the end of the questionnaire.</i>					
	^{C0901} 1 Yes	3	No → Go to	question 11		
10b.	Did you apply irrig during the 2014 gr			os, excluding _l	ootatoes, on this	s operation
	^{C0902} ¹ Yes	3	No → Go to	question 11		
	What area of land Specify the total land question 4. An area to counted once. For ex additional 50 acres in C0903 How much water following months? Please provide the que question 4 Enter a "0"	area that red hat received cample, if you had August, the was applied	ceived irrigation irrigation multipation multipation multipation irrigated 100 size of the irrigation to the vegen multipation irrigation irrig	n in 2014 using toole times during acres in July and gated crop area is	the unit of measure the season should the same 100 acres 150 acres:	specified in only be es plus an only be only be only be only an only be only b
	2014		Quantity	of water		Irrigated land area
	April	C0905			C0913	
	Мау	C0906			C0914	
	June	C0907			C0915	
	July	C0908			C0916	
	August	C0909			C0917	
	September	C0910			C0918	
	October	C0911			C0919	
	TOTAL	0912				

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Irrigation systems

11. What **irrigation method** was used to irrigate your crops in 2014? **Mark all that apply**. *If needed, see the crop guide at the end of the questionnaire.*

	Forage crops, including hay, improved pasture and silage	Field crops, including potatoes	Fruits	Vegetables, excluding potatoes
Sprinkler irrigation Systems distribute water above the crop canopy using a spray. Sprinkler irrigation systems include hand move; solid or permanent set; side roll, wheel line, wheel move or wheel roll; traveller, volume gun, travelling gun, walker, overhead or circular; linear move; and centre pivot.	C1001_1	C1002_1	C1003_1	C1004_1
Micro-irrigation Delivers water onto the soil surface very close to the crop or below the soil. It includes surface drip, sub-surface drip, micro-sprinklers, by libit lers on c 6 jets and hand watering	MATIC C1001_2 USE T	C1002_2	C1003_2	C1004_2
Surface irrigation The water flows over the soil surface by gravity, either by flooding or in furrows. It includes down rows, furrows, corrugations, border dyke, level basins, uncontrolled flooding and back flooding. It excludes surface drip irrigation.	C1001_3	C1002_3	C1003_3	C1004_3

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	Irrigation practices and water sources		
Th	e following questions deal with possible sources of water used for irrigat	ion.	
12.	Of all the water used for irrigation in 2014, what percentage came from each of	the fo	llowing?
			%
	On-farm underground water or well water, including shallow wells and deep wells	C1101	
	On-farm lakes, rivers, creeks or streams, ponds or dugouts i.e. direct access (surface water)	C1102	
	Off-farm water transported to the farm e.g., via pipeline, canal system or vehicle, including municipal water and any surface water located off-farm	C1103	
	Other source(s), C1105 specify:	C1104	
			100%
	If only on-farm water is reported in question 12 -> Costo question 15 If off-farm water is reported in question 12, so it nue to question 13.		
13.	Of all the off-farm water used for irrigation in 2014, what percentage came from each of the following? SE TO REPORT		%
	Tap water	C1201	
	Treated wastewater	C1202	
	Provincial water sources (irrigation district, irrigation project)	C1203	
	Private sources	C1204	
	Other source(s), specify:	C1205	
			100%
14.	Why did this operation need to obtain water from an off-farm source in 2014 Mark all that apply:	?	
	No water or not enough water available on the farm for irrigation		
	Poor quality of on-farm water for irrigation		
	C1303 Other reason(s) specify:		

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on	tnis	ope	eration during the 2014 growing season.
15.			f the following practices were used in 2014 to conserve water or energy? I that apply:
	C1401		Wind breaks
	C1402		Leaving stubble on fields (e.g., minimum tillage, direct seeding)
	C1403		Watering at night or in the morning
	C1404		Pressure reduction
	C1405		Water or energy saving nozzles
	C1406		Incorporating compost or other organic material into soil to increase soil water retention
	C1407		Other water or energy saving methods or devices
	C1408		No practices used
			Comments
16.			mately now long did it take to collect the data COPY hour(s) minutes applete the survey?
17.	We i	nvit	e your con ments on any section of the survey. Charles that we review all comments with the intent of improving the survey.
C1501			
C1502			
C1503			
C1504			
C1505			
C1506			

The following question asks about water and energy practices used for irrigation

Thank you for your cooperation. Please return the completed questionnaire within 30 days of receipt by mail, using the enclosed, postage paid envelope.

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Crop guide

Field crops

Barley Dry field peas Safflower
Borage seed Flaxseed Soybeans
Buckwheat Ginseng Sugar beets
Canary seed Lentils Sunflower seeds
Canola Linola Tobacco

CanolaLinolaTobaccoCaraway seedMixed grainsTriticaleChick peasMustard seedWheatCoriander seedOatsOther field crops

Coriander seed Oats
Corn for grain Potatoes
Dry beans Rye

Fruits

Apples Kiwis Raspberries

Apricots
Blueberries
Cherries

Cranberries Plums

DO NOT USE TO REPORT

Vegetables

Asparagus Garlic Pumpkins
Beans (green or wax) Gherkins Radishes
Beets Leeks Rhubarb
Broccoli Lettuce Rutabagas
Brussels sprouts Melons (watermelon) Spinach

Cabbage (Chinese)

Cabbage (regular)

Carrots (including baby)

Cauliflower

Calliflower

Parsley

Parsnips

Melons, other

Squash

Tomatoes

Turnips

Zucchini

Other herbs

Corn (sweet) Peas (green) Other vegetables
Cucumbers Peppers

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