

2005 Crop Protection Survey Carrot Growers



	CONFIDENTIAL when completed
	Collected under the
	authority of the
	Statistics Act, Revised Statutes of
	Canada, 1985,
	Chapter S-19.
To correct or make changes to this label CO to Ston 1	For intensiower use only
· · · · · · · · · · · · · · · · · · ·	For interviewer use only completed 005 1
Ce questionnaire est disponible en français.	Partial 005 4
	Refusal 005 2
	o contact 005 3
	operation 004 00 foperator 004 12
· · · · · · · · · · · · · · · · · · ·	business 004 13
TO THE RESPONDENT:	
The objective of this survey is to collect more accurate pesticide use and pest management	
farmers to help researchers, government agencies and farm organizations document and pesticide use and pest management systems.	l ti זכ'ג changes in
pesticide use and pest management systems.	
Value reasonance will halo ancies that there are acquired and accord data available as the	arana way mraduaa
Your responses will help ensure that there are accurate and sound data available and the	crops you produce.
Every questionnaire counts, SO please respond.	
This is a voluntary survey conducted under Section 8 of the Statist. S Act. Your cooperate	ion is important to
ensure that the information collected in this survey is accurate.	
All information will be kept confidential under the Stantation Act.	
All illionilation will be kept confidential under the Stall Nic. Act.	
Please refer to the 2005 calendar year when ans vering the questions.	
In order to evoid dumination Ctatistics Constanting the recommence you provide in this	a aumiau ta tha
In order to avoid duplication, Statistics Ganaca will add the responses you provide in this information you supplied for the 2005 Free't and Vegetables Survey. The combined inform	_
strictly for statistical purposes and published in aggregate form only.	
STEP 1: Change or correction to the address label (if required)	
1 Are there any changes required to the address label?	
	11
Corporation name	
	12
Operator name	
	13
Contact name	
14 15 15 -	16
Area code Telephone contact person Telephone ope	rator
17 18	
D D Doy No.	
R.R. Box No.	
R.R. Box No.	19
R.R. Box No. Number and street name	19
Number and street name	19
	21



For interviewer use only

Based on label information, enter last digit of contact telephone number:	f
Enter number of field listed in Step 2:	→ Row number

Use this table to select field

			Last D	igit of th	e conta	ct's tele	phone n	umber		
# of fields	0	1	2	3	4	5	6	7	8	9
1	1	1	1	1	1	1	1	1	1	1
2	1	2	2	1	2	1	2	1	1	2
3	1	2	1	3	2	1	2	3 -	3	1
4	1	4	3	3	2	1	2	2	3	1
5	4	5	3	1	5	2	2	/ 4	1	3
6	5	1	2	1	3	6	4	3	2	5
7	7	2	1	3	2	4	6		6	4
8	6	4	2	3	8	5	6	1	3	7
co	5	8	5	4	9	2		6	7	1
10	8	4	5	3	7	6	1	2	9	10

TEP 2: Questions about the fields where CARROTS were grown for sale in 2005
2 What UNIT OF MEASURE will be used to report land areas? ²² This same unit should be used throughout the questionnaire.
(Check one circle only.) O 01 Acres O 02 Hectares O 03 Arpents (Quebec only)
3 What was the total area planted in CARROTS (all varieties) on this farm operation in 2005?
4 How many fields (blocks, sections, plots) were planted in CARROTS?
Include:
▶ all fields where you grew CARROTS for sale to the fresh or processing markets in 2005;
▶ all areas of CARROTS grown for sale at roadside stands, farmer's markets or U-pick systems. Do not include:
► fields rented or leased TO OTHERS;
 fields owned but operated by someone else under a crop share arrangement; greenhouse and home garden areas.
To save time, this interview will focus on one field only. First, we will list all fields where carrots were grown in 2005. You can use
your identification system (field name, number or description) to report each field. Then, I will select a field from the list.
5 What are the fields where carrots were grown in 2005?
If the respondent uses a different term than "field" (e.g. block, section, plot) to describe the CARROT area, please specify here:
▶ If there are more than 10 fields, list the 10 largest fields.
Field name, number or description
1 6 7
3 8
4 5
Now, I will select one CARROT field from all carrot fields that you planted in ?000. Interviewer action: Enter the selected field (block, section or plot) number
The selected field is: During u.is interview, I will ask you questions about this field.
6 What was the area of the selected CARROT field (block, section copiot)?
7 In 2005,
a) which carrot variety was planted?
b) what was the seeds' trade name?
c) when was the field seeded/planter D D M M 31 D D M M 34 D D M M 37 D D M M 40
d) when did harvest start?
e) when did harvest finis. 2
e, mieri die nai tee
TEP 3: Questions about herbicide, insecticide or fungicide applications from January 1 to December 31, 2005 on the field selected in Step ?.
8 In 2005, did you apply any herbicides, insecticides, fungicides or other pesticides on the selected field?
O1 O Yes O2 O No If "YES", continue to question 9. If "NO" \rightarrow Go to Step 4.
9 What format was used to keep records of herbicides, insecticides, fungicides or other pesticides applied to the selected field? Was it? (Check all that apply.)
Olimination of the olimination o
10 What information is kept in your logs/record-keeping system? Does it include the? (Check all that apply.)
O Date of application 48 O Product applied 51 O Temperature at application
o Identification of field o Rate of application o Targeted weed, insect or disease
11 Did the company or person purchasing your produce require the use of specific herbicides, insecticides or fungicides as
part of a contractual agreement?
⁰¹ ○ Yes ⁰² ○ No ⁰³ ○ Not applicable, the produce was not sold to a processor under a contractual agreement.

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STE	3: Q	ues	tion	s ab	out	hei	oicide, insecticide or fungicide applications from January 1 to December 3	1, 2005 on the field select	ed in S	Step	2							
12 \	Vhat c	hemi	cals	were	арр	lied	o the selected carrot field in 2005? Report ALL CHEMICAL APPLICATIONS to the SELECT	ED FIELD in this table.										
ı	nclude	all a	pplic	atio	ns to	the	SELECTED FIELD (Step 2) made by the respondent, a partner, an employee or a custom a	oplicator.										
5	► Whe	re ne	cess	ary (r	nore	than	45 applications or lines), use additional tables supplied with the interviewer material.	Check if yo	ou use ad	dditio	nal table	999						
ı	► For p	re-pa	ackag	ged n	ixes,	, ent	r the product code found in the <u>Interviewer Reference Guide</u> .					1						
ľ	► If the	resp	onde	nt m	xed i	more	than one product in the tank, use a different line for each product mixed.											
Ľ	► If the	code	e of a	pre-	pack	ageo	mix is not included in the list, report its name at the bottom of this table (p. 4).											
	1		Colu	mn [1]		Column [2]		1			Col ımn [3]		Colu	mn [4]	1	Column [5]	
							Which product was applied?				What	was the rate of application?		What application	was the technique?		olication wa	
							(Enter product name or code from the Interviewer Reference Guide)			,	(6	e.g. 1 litre per acre)		(Enter the	application		t of the FIEL treated?	
Lin	е	Date	e of a	ppli	atio	n								,	code p. 4)		treateur	
_	1)	D	M	M	101		201			301	per	401		501			601
_	2)	D	M	M	102		202		Y	302	per	402		502			602
_	3)	D	M	M	103		2. 1			303	per	403		503			603
_	4)	D	M	M	104		204			304	per	404		504			604
_	5)	D	M		105		2.05			305	per	405		505			605
_	6)	D	M	M	106		206			306	per	406		506			606

Lille	Date of application				technique code p. 4)	
	1 D D M M 101	201	301	per 401	501	601
	2 D D M M 102	202	302	per 402	502	602
	3 D D M M 103		303	per 403	503	603
	4 D D M M 104	204	304	per 404	504	604
	5 D D M M 105	2.05	305	per 405	505	605
	6 D D M M 106	206	306	per 406	506	606
	7 D D M M 107	207	307	per 407	507	607
	8 D D M M 108	208	308	per 408	508	608
	9 D D M M 109	209	309	per 409	509	609
1	0 D D M M 110	210	310	per 410	510	610
1	1 D D M M 111	211	311	per 411	511	611
1	2 D D M M 112	212	312	per 412	512	612
1	3 D D M M 113	213	313	per 413	513	613
1	4 D D M M 114	214	314	per 414	514	614
1	5 D D M M 115	215	315	per 415	515	615
1	6 D D M M 116	216	316	per 416	516	616
1		217	317	per 417	517	617
1	8 D D M M 118	218	318	per 418	518	618
1	9 D D M M 119	219	319	per 419	519	619
2	0 D D M M 120	220	320	per 420	520	620
2	1 D D M M 121	221	321	per 421	521	621
2		222	322	per 422	522	622
2		223	323	per 423	523	623
2	24 D D M M 124	224	324	per 424	524	624

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	Column [1]	Column [2]					Column [3]	Co	olumn [4]		Column [5]	
Line	Date of application	Which product was applied? (Enter product name or code from the Interviewer Reference Guide)			,		was the rate of application? e.g. 1 litre per acre)	applicat	at was the ion technique? the application que code p. 4)	or half r	plication was ow treatmen t of the FIELI treated?	nt, what
25	D D M M 125	2	225		П	325	per 425		525			625
26	D D M M 126	2	226			326	per 426		526			626
27	D D M M 127	2	227			327	per 427		527			627
28	D D M M 128	2	228			328	per 428		528			628
29	D D M M 129	2	229			329	per 429		529			629
30	D D M M 130	2	230			330	per 430		530			630
31	D D M M 131	2	231			331	per 431		531			631
32	D D M M 132		232			332	per 432		532			632
33	D D M M 133		233			333	per 433		533			633
34	D D M M 134	2	234			334	per 434		534			634
35	D D M M 135		235			335	per 435		535			635
36	D D M M 136		²]			336	per 436		536			636
37	D D M M 137	2	237	Y		337	per 437		537			637
38	D D M M 138		8, 4			338	per 438		538			638
39	D D M M 139		239			339	per 439		539			639
40	D D M M 140	2	240			340	per 440		540			640
41	D D M M 141	2	241			341	per 441		541			641
42	D D M M 142	2	242			342	per 442		542			642
43	D D M M 143		243			343	per 443		543			643
44	D D M M 144		244			344	per 444		544			644
45	D D M M 145		245			345	per 445		545			645
For ch	emicals not listed in the <u>In</u>	terviewer Reference Guide, please specify below:			product pu							
		- Y			ders, emula ates, granu				echnique codes			
Line	Name of formulated	product or PCP number	Ī			,			olumn 4 above)			-
$ \vdash$ \vdash		701					1= Broadcast spraying (boom	or non-boom	1)			
Щ		702					2= Band spraying		8= Chemigation	on - high p	ressure gun	
		703					3= Orchard airblast - axial fai	7	9= Backpack	spraying		
		704					4= Orchard airblast - cross-fl	ow tower	10= Granular a	application		
		705					5= Spraying by airplane		11= Pheromon			
		706					713 6= Spraying by helicopter		12= Other (spe			
		707							Column 2)		mie III	
		TO THE PERSON OF	L				7= Chemigation - low-pressure	drop tube				

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STEP 4: Questions about WEED, INSECT, DISEASE AND OTHER PEST MANAGEMENT PRACTICES in 2005 for the field selected in Step 2	
13 a) What main crop do you plan to grow in the selected field in 2006?	801
b) Which main crops did you grow in this field in the three years preceding 2005?	802
2003	803
2002	
14 How many times did you use the following tillage implements to prepare this field for planting? Include implements used to prepare the soil after harvest in the fall of 2004 and before planting in the spring of 2005.	
Moldboard plow 807 Rotary cultivator 809 Light disc harrow or cultivator	
Chisel plow 808 Heavy discs 810 Vibrator tiller	
Other, specify:	81:
15 In 2005, what planting method did you use for the crop you planted in this field? Was it? (Check only one circle)	
O1 O Transplanting O2 O Direct seeding into tilled soil O3 O Other, specify	815
16 Which practices do you use in your spray operation in this field in 2005? Do you? (Check all that apply.)	
816 Calibrate sprayer each year 822 Spray only when wind speeds are low (less than five km/h)	
Use the highest labelled water volume Spray only when wind blows away from se. sitive areas Replace nozzles at least every three years Maintain lower pressure or use to '-drift nozzle	
Replace nozzles at least every three years 824	
820 O Maintain low boom height 821 O Adjust airblast direction for target height	827
821 O Adjust airblast direction for target height	020
17 In 2005, did you use any of the following practices in this field for WEED management? Did you? (Check all that apply.) 829 Use mulch 831 Use a c ltivator or rotary hoe 632 Chop c remove crop residue 833 Ou. er, specify:	834
	_
18 In 2005, for the selected field, was the incidence of WEEDS commared to the last five years? (Check one circle only.) Onumber of Weeps of the last five years? Nuch less of the last five years? About the same of the last five years? Nuch more If the answer is "More" or "Much more", continue to question 19. Otherwise → Go to Question 20.	
19 What do you plan to do during the next grow. 'vg season to reduce your WEED problems? Will you? (Check all that apply.)	
Switch to a different hereicica say Change planting or tillage practices 837 O Apply an additional herbica say Alter crop rotation	
838 O Increase rate of perticide applications 841 O Other, specify:	842
20 In 2005, for the selec ∵d field, was the incidence of <u>INSECTS</u> compared to the last five years?	
(Check one circle only.) Onumber 101	
If the answer is "More" or "Much more", continue to question 21. Otherwise $ ightarrow$ Go to Question 22.	
21 What do you plan to do during the next growing season to reduce your INSECT problems? Will you? (Check all that apply.)	
Rotate crops to disrupt insect cycles 849	
Plant a more resistant crop variety Switch to a different insecticide Plant a more resistant crop variety Suitch to a different insecticide Plant a more resistant crop variety Suitch to a different insecticide	852
848 O Apply an additional insecticide	853
22 In 2005, did you deal with any NEW INSECTS in this field?	
⁰² O No ⁰¹ O Yes	
► If yes, what was the main insect?	
23 For the selected field, what was the MOST PREVALENT INSECT you had to control?	
	956
If there was no significant insect problem, enter "0" and skip to Question 25.	856

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STEP 4: Questions about WEED, INSECT, DISEASE AND OTHER PEST MANAGEMENT PRACTICES in 2005 for the field selected in Step 2
·
24 What did you do to control the MOST PREVALENT INSECT? Did you? (Check all that apply.)
Apply insecticides throughout the growing season
O Time insecticide applications to target the insect at different development stages
What were the developmental stages?
If not applicable, go to next choice: Box 862 C Larval or nymphal stages
861 O Adult
O Take other steps to disrupt the reproduction of this insect
Take other actions to disrupt the morphological development of this insect
Rotate crops to break insect cycles 865 O Rolage baneficial organisms to control this insect
Release beneficial organisms to control this insect Manage this field and its surrounding area to attract beneficial organisms
manage this new and its surrounding area to attract senencial organisms
25 In 2005, for the selected field, was the incidence of <u>DISEASES</u> (fungus, bacteria, mildew) compared to the last five years?
(Check one circle only.) 01 O Much less 02 O Less 03 O About the same
04 ○ More 05 ○ Much more
If the answer is "More" or "Much more", continue to question 26. Otherwise \rightarrow Go to Question 27.
26 What do you plan to do during the next growing season to reduce your <u>DISEASE</u> problems? Will you? (Check all that apply)
O Plant a more resistant crop variety 872 O Rotate crops to disrupt disease cycles 889 O Increase rate of fundicide applications 873 O Alter soil fortility or water management
Therease rate of fungicitie applications of Arter son fertility of water management
870 Switch to a different fungicide 874 O Other, specify: 875 876 877 O Apply an additional fungicide
TAPPIY all additional fullylicide
27 In 2005, did you deal with any <u>NEW DISEASES</u> in this field?
⁰² O No ⁰¹ O Yes
▶ If yes, what was the main disease?
28 For the selected field, what was the MOST PREVALENT DISEASE (fungus, bacteria, min, w), you had to control?
If there was no significant disease problem, enter "0" and skip to Question 31.
29 What tools/methods did you or your advisor use to make decisions on when to apply fungicides in this field to control the MOST
PREVALENT DISEASE?
A set application schedule (C.A. Mar spraying)
was the decision based on? Scouling reports and it. sandius
(Check all that apply.) 883 C Regional forecas: Wirming services 883 C Climatic conditions (degree days, moisture)
884 O Advice from 6. her operators
885 O Advic from chemical salesperson
886 O Con't kin. Y
887 O Oth , specify:
30 Which practices did you use to avoid the Muo, PREVALENT DISEASE (fungus, bacteria, mildew) in this field?
Did you? (Check all that apply.)
889 O Plant certified d'sea e-free transplants or seeds
Select the plan. val by known to be most resistant to the major disease threats in your area
891 O Eliminate a passible sources of inoculum, such as cull piles or volunteer plants in nearby fields
© Clear, aquion, and moving into this field to reduce risk of transporting disease spores or inoculum
O Adjust fe. ilizer levels to prevent excessive levels of nutrients in the root zone and plant foliage
⁸⁹⁴ O Test your soil for micronutrient imbalances that can promote certain diseases
895 O Alter the timing of fertilization and/or water applications
STEP 5: Questions about weed, insect and disease RESISTANCE to chemical applications for your ENTIRE OPERATION.
31 In 2005, did you use any of the following practices to prevent weeds, insects and disease resistance to chemical products?
Did you? (Check all that apply.)
O Always rotate chemical families (or groups) 897 O Select more pest resistant crop varieties
Sometimes rotate chemical families (or groups) 899 Reduce pest populations through non-chemical means
900 Other, specify:
32 On YOUR FARM, to what extent, if any, are weeds becoming resistant to <u>HERBICIDES</u> ?
Are weeds becoming? (Check one circle only.)
01 \odot Very resistant 02 \odot Resistant 03 \odot Slightly resistant 04 \odot Not resistant 09 \odot Don't know
33 On YOUR FARM, to what extent, if any, are insects becoming resistant to <u>INSECTICIDES</u> ?
Are insects becoming? (Check one circle only.)
O Very resistant O Resistant O Slightly resistant O Not resistant O O Don't know
34 On YOUR FARM, to what extent, if any, are diseases becoming resistant to <u>FUNGICIDES</u> ?
Are diseases becoming? (Check one circle only.)
01 O New registers 02 O Registers 03 O Slightly registers 04 O Net registers 09 O Den't know 904

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STEP 6: Questions about the herbicide, insecticide or fungicide products that you would have I registered for application on CARROTS in 2005	iked to	use if they	had been
35 What are the herbicide, insecticide and fungicide products that were NOT registered for use on CARROTS in 2005 that you would have liked to use if they had been registered in your province?			
 ▶ List chemical products that are available in other provinces or countries. ▶ If necessary, use the comment box on page 8 to provide further details or explanations. 	or prod	able, enter PC duct code four wer Reference	nd in the
Product name 905 ○ None ► Go to question 36. 1	intervie	Wei Reference	907
908			909
912			913 915
STEP 7: Questions about the characteristics of the operator(s) and agricultural operation as of	Decemb	er 31, 2005	5
36 Which of the following best describes this farm operation? (Check one circle only.)			
O1 O Sole proprietorship			
(If the operation is a family or hobby farm, check 1, 2			
or 3). OPartnership Cooperative or communal operation (e.g., Hutterite colony)	4		
Other, specify:	4		917
37 Are you the person who looked after the day-to-day crop management decisions on this operation?	⁹¹⁸ Yes	O 01 No	0 0 02
38 How many operators (decision-makers) 18 years of age and over were responsible for this operation?			919
39 What was the age of?			
If there was only one operator, enter the age in the box for Operator 1.			920
² Operator 2 (minimum age 18)?			921
40 What is the highest level of education completed by the operator(s)?		922	923
If there was only one operator, enter the level of education in the box for the Operator 1. Some elementary or secondary (high) school (include upgraded and sported education)		<u>oerator 1</u>	Operator 2
² Completed secondary (high) school (graduation certificate or equivalent)		O 02	O ⁰²
³ Some post-secondary, including some college or valve sity courses		O 03	O 03
⁴ Completed college or university certificate or liplon a b. low bachelor level (e.g., trade, technical or vocation school, agricultural diploma, business or commun to college, CEGEP)	onal	O 04	O 04
⁵ Completed university degree program (include bachelor's degree and above)		O 05	O 05
41 How many years has the most experienced operator on this farm managed a farm business?			924
STEP 8: Agreement to share data			
Thank you for taki: a the time to participate in our survey. In order to avoid duplication, Statistics Canada has agreement under Section 12 of the Statistics Act with the three federal government departments listed below this survey. The agreement requires that no names or addresses or any other identifier be shared with these information be kept confidential and used only for statistical and research purposes by these three departments.	to share departme	the response	s from
42 Do you agree to share this information with:			
a) Agriculture and Agri-Food Canada? Yes		No O 02	925 926
b) Health Canada?Yes c) Environment Canada?Yes		No O 02 No O 02	926
In order to extend the research capabilities of this survey, Statistics Canada intends to combine the informati			ith
the 2005 Fruit and Vegetables Survey information that Statistics Canada obtained from your operation.			
43 Do you agree that Statistics Canada combines information from this survey with the information you provided on the 2005 Fruit and Vegetables Survey?	o 01	No O ⁰²	928
44 Would you like to receive a summary report of the survey results?	o 01	No O ⁰²	931
45 What is your e-mail (or mailing) address? Your address will <u>NOT</u> be shared with any other government depart	tment.		
Enter "MAIL" if the respondent prefers to receive the report by mail.			
E-mail address			932

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Farm operator comments	Check if you wrote comments
Interviewer comments	Check if you wrote comments
INTERVIEWER EXIT CHEC	CK. IST
	de, tification number:
	or contacts required: 935 N N
	Interview date: 936 M M D D
Travel time t	to interview location: 937 H H M M
Int	terview starting time: 938 H H M M O 01 a.m. O 02 p.m. 939
Inte	erview finishing time: 940 H H M M O 01 a.m. O 02 p.m. 941
Circle f	fully completed steps 1 2 3 4 5 6 7 8
DK in the margin for que	
R in the margin for question	ns refused to answer
All unusual situations are explained in the	"Comments" section
A farm status code has been entere	ed on the cover page
A questionnaire status has been entere	ed on the cover page
If you marked "Change of operator "Refusal", or "No contact" on the cover explained in the "Commer	page, the situation is

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