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TECHNICAL REPORT

ONTARIO FIELD CROPS

**Adaptation and Impacts Research Division (AIRD)
Allan Truong, 2005**

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Climate Change Impact and Adaptation Program
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Executive Summary

The Technical Report for Ontario Field Crops consists of crop yield data for all of Ontario at the provincial level, at the Census Agricultural Region (CARs) level and the Census Division (County) level. There are five different CARs within Ontario: Southern Ontario (CAR 1), Western Ontario (CAR 2), Central Ontario (CAR 3), Eastern Ontario (CAR 4) and Northern Ontario (CAR 5). These CARs are comprised of several Census Divisions. In this report, the crops documented include: barley, canola, fodder corn, grain corn, hay, mixed grain, oat, soybean, spring wheat, tobacco, white beans, and winter wheat. The report is organized into three sections, with data and corresponding analyses done at the provincial, CAR and Census Division levels. Several indices and methods were used to identify variations in crop yield during the 2001 and 2002 droughts.

Section 1: Crop yield data at the Provincial level from 1981-2003

In this section, the percentage of the provincial average, linear trend line analysis, yield rankings, and the percentage change from the previous year were used to determine the impacts of the 2001 and 2002 droughts on crop production. Crops highlighted below either showed yields that were below the trend line, had a difference of 15% or more from the provincial average, had a change of 15% or more from the previous year or a rank in the first or last five based on the percentage of provincial average.

- 2001: - The crop yield of fodder corn, grain corn, hay, soybean, tobacco and white beans were all below the 1981-2003 trend line.
- Hay and soybean yields were below the provincial average at 74.7% and 57.9% respectively, while spring wheat and winter wheat yields were above the provincial average at 120.5% and 119% respectively.
 - Soybean yields had a change of 55% from the previous year, while spring wheat had a change of 115.2%.
 - Fodder corn was ranked third from last, hay was ranked second last, soybean was ranked last and tobacco was ranked fourth from last.
 - Spring wheat ranked first, oat and canola ranked second, barley and mixed grain ranked third, and winter wheat ranked fourth.
- 2002: - Barley, canola, fodder corn, grain corn, hay, mixed grain and soybean yields were below the trend line.
- Hay yields were below the provincial average at 78.3%, while spring wheat, white beans and winter wheat were above the provincial average at 115.9%, 125.8% and 119% respectively.
 - Canola yields had a decrease of 15.4% while soybeans, tobacco, white beans had increases of 61.9%, 16.7% and 46.2% respectively.
 - Hay was ranked third from last, while oat, soybeans and white beans all ranked third, winter wheat ranked fourth, and tobacco ranked fifth.

Fodder corn, grain corn, hay and soybean were the only crops that had yields below the trend line in both 2001 and 2002.

Conversely, oat, spring wheat and winter wheat yields were above the trend line in both years. In terms of the percentage of the provincial average, hay and soybeans showed a negative difference of 15% or more from the provincial average in 2001 and 2002, while spring wheat and winter wheat showed a positive difference of 15% or more. Soybeans were the only crop that had a change in yield of 15% or more in both years. Finally, hay was the only crop that had ranked in the last five positions of the yield rankings, while oat, spring wheat and winter wheat ranked in the first five positions throughout the two year period.

Section 2: Census Agricultural Regions (CARs) Percentage of Average 1998-2004

In this section, crops were defined to have low yield years if either the CAR ranked last or second last in terms of percentage of average in the regional data of 2001 or 2002.

Barley:

- Was ranked last in Northern Region for 2001.
- Ranked second last in Western, Central, Eastern, Northern Regions and all of Ontario in 2002.

Fodder Corn:

- Ranked last in Southern, Western, Central, Eastern, Northern Regions and all of Ontario in 2001.
- In 2002 was ranked second last in Southern Region and all of Ontario.

Grain Corn:

- Ranked second last in Southern, Western, Eastern, and Northern Regions while in Central Region and all of Ontario was last in 2001.
- Southern Region was last in 2002.

Hay:

- Ranked second last in Northern Region was while in Central, Eastern Regions and all of Ontario was last in 2001.
- Was ranked last in Southern and Western Regions for 2002.

Mixed Grain:

- Was ranked last in Central and Northern Regions in 2001.
- In 2002 was ranked second last in Southern, Western, Central, Eastern Regions and all of Ontario.

Oat:

- Was ranked last in Northern Region for 2001.

Soybean:

- Ranked last in Southern, Western, Central, Eastern, Northern Regions and all of Ontario in 2001.
- Ranked second last in Eastern Region for 2002.

Winter Wheat:

- Were ranked second last in Western Region and all of Ontario in 2001.
- Ranked second last in Southern and Northern Regions for 2002.

Section 3 – Census Division (County) Yield 1998-2004

Top producers of CAR level and Census Division level were identified based on the yield averages from 1998-2004 and the requirement of a complete data set:

Top CARs producers:

- Western Ontario for barley, mixed grain, oat, winter wheat and tied for white bean.
- Southern Ontario for fodder corn, grain corn, hay, spring wheat and white bean.
- Eastern Ontario for soybean.

Top Census Division producers:

- Waterloo Regional Municipality (West) for barley and oat.
- Halton Regional Municipality (West) for fodder corn.
- Chatham-Kent Division (South) for grain corn.
- Elgin, Lambton, Middlesex, Oxford (South) and Perth (West) tied for hay.
- Middlesex (South) for mixed grain.
- Perth (West) for soybean, white bean and winter wheat.
- Essex (South) for spring wheat.
- Haldimand-Norfolk Regional municipality (South) for tobacco

In terms of the largest decrease in yield for 2001 and 2002 based on percent decrease from the previous year, there were 116 census divisions out of 492 in 2001 and 90 out of 492 in 2002 that had yield decreases of at least 15% from the previous year when the number of affected census divisions per crop were added. Within the 116 census divisions in 2001, there were 21 combined from all the crops that experienced decreases in yield of at least 50% from the previous year. The crops that suffered these decreases and their respective census divisions are as follows:

- Barley: Rainy River District
- Fodder Corn: Prince Edward Division, Lennox and Addington County
- Grain Corn: Prince Edward Division, Lennox and Addington County
- Mixed Grain: Kawartha Lakes Division (formerly Victoria) and Muskoka District Municipality
- Oat: Halton Regional Municipality, Kenora District, Manitoulin District and Rainy River District
- Soybean: Elgin County, Oxford County, Halton Regional Municipality, Waterloo Regional Municipality, Durham Regional Municipality, Hastings County, Kawartha Lakes Division (formerly Victoria), Prince Edward Division, Leeds and Grenville County, and Ottawa Division (formerly Ottawa-Carleton)

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Overview

The Ontario Field Crops technical report consists of provincial, Census Agricultural Region (CARs) and Census Division level crop yield data for all of Ontario. Crops included in this report are: *barley, canola, fodder corn, grain corn, hay, mixed grain, oat, soybean, spring wheat, tobacco, white bean and winter wheat*. Ontario is separated into five different CARs which are: *Southern Ontario, Western Ontario, Central Ontario, Eastern Ontario and Northern Ontario* and within these regions are Census Divisions.

Section One contains provincial yield data for the time period 1981-2003. The first table in this section is a summary that shows all crops of interest in this report. The term ‘average’ is in fact the provincial average yield from 1981-2003. The term ‘percentage of average’ is calculated by dividing the provincial crop yield of a specific year by the calculated provincial average yield of that particular crop. The subsequent pages in this section contain three in depth indices to detect variations in yield for 2001 and 2002 at the provincial level. *Linear trend line analysis* was performed and *yield rankings* were tabulated. Additionally, *the percentage change from the previous year* was calculated.

The linear regression graph allows visual inspection of data points relative to a long term data and it also displays the R^2 value. Yield rankings are based on the percentage of average. The tables display the rankings in descending order which highlight the 2001 and 2002 years to compare its yield values against the other years. The term ‘percentage change of previous year’ is used to detect sudden drops in yield (production) and is reported in percentages. It is calculated by first dividing the present year by the previous year. If the resultant number is equal to 1, then there is no change from the previous year. If it is below 1, then it is subtracted by 1, or if the number is above 1, then 1 is subtracted from the number. Finally, the value is converted into a percentage. A negative percentage implies a decrease in production relative to the previous year. A zero value implies no change in yield values from the previous year and a percentage without a sign in front of the value implies an increase in yield. Moreover, the top CAR and Census Division producers (based on calculations from Section Three) for each crop are listed at the top of each page.

Section Two contains CARs data for the time period of 1998-2004 and identifies regions with low yields for 2001 and 2002. The determination of low yield is based on the identification tool of *Census Agricultural Regions (CARs) Percentage of Average 1998-2003*. This tool employs the same method as ‘percentage of average’, but instead of dividing annual *provincial* crop yield by the average, the annual crop yield for each CAR is divided by the average. The percentage of average for each CAR were sorted and yields for 2001 and 2002 were identified if ranked in the bottom two among the data from 1998-2004. Yields from all CARs in Ontario for each crop are graphed onto the same diagram for simple cross referencing. Following the graphs are brief summaries.

Section Three contains *Census Division* as well as CAR yield data for each crop for the time period 1998-2004. The top Census Divisions and top CAR producers were determined by the yield average from 1998-2004. The concept of ‘percentage change from previous year’ is also applied to this section for 2001 and 2002. However, the terms have different titles; *2001 % of 2000 and 2002 % of 2001*. Every Census Division that had a decrease in yield values of at least 15% was identified. Furthermore, the three largest decreases in Census Divisions per crop were marked.

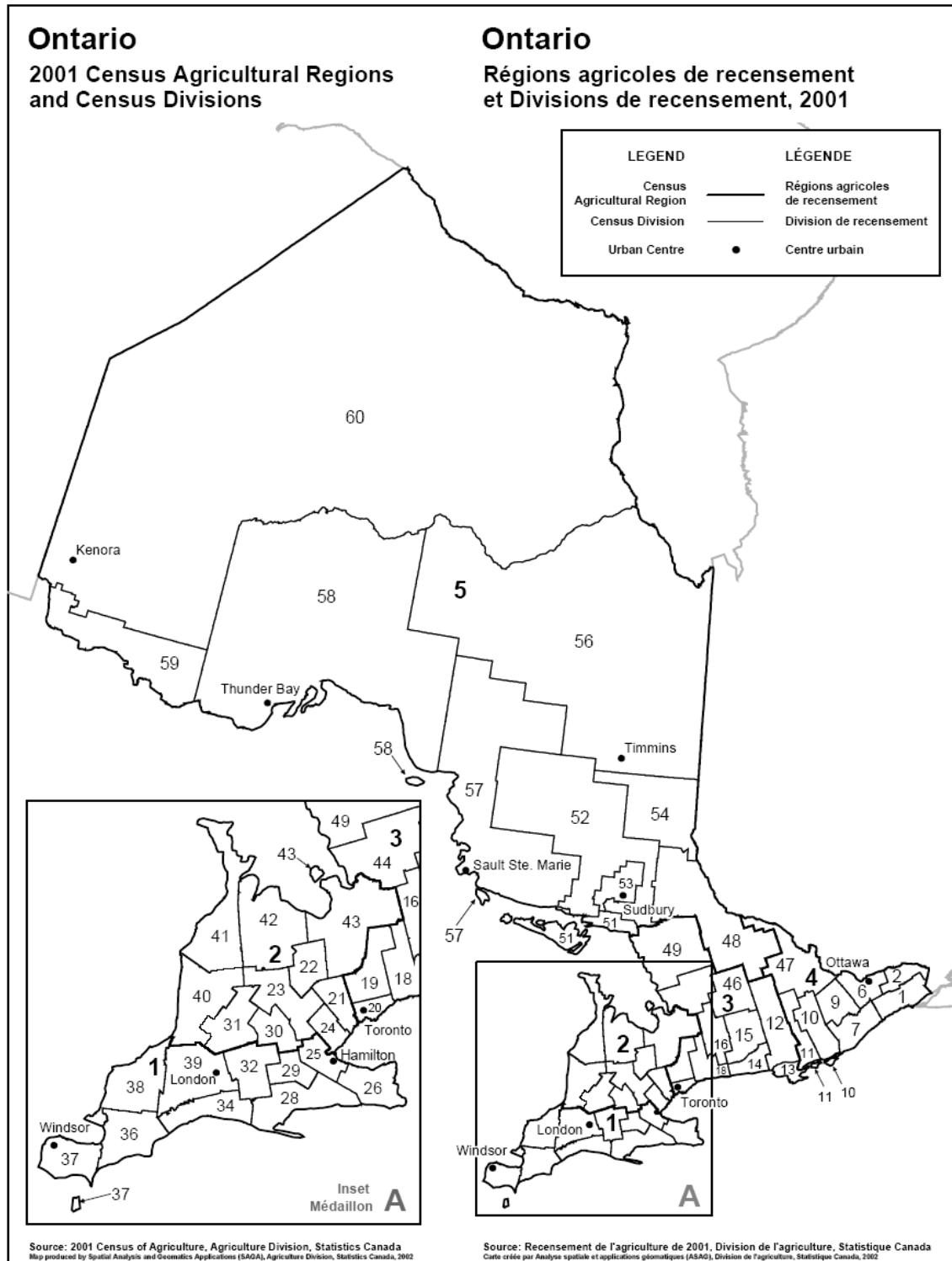
The conclusion summarizes findings from each section. Section One uses 3 indices to detect variations in 2001 and 2002 crop yield data: *linear trend line analysis, yield rankings* and *percentage change from previous year*. Section Two identifies CARs with low yields in 2001 and 2002 for each crop. Section Three identifies the top CAR and top Census Division producer for each crop based on average yield from available data. Additionally, Section Three identifies the most affected Census Divisions.

Data labeled N/A can be attributed to lack to data or confidentiality concerns. Original data can be found at the general link:

<http://www.omafra.gov.on.ca/english/stats/crops/index.html>

Map of Ontario Census Agricultural Regions

From: Statistics Canada. 2005. Accessed: <http://www.statcan.ca/english/freepub/95F0301XIE/maps/ontcar.pdf>



2001 Census Agricultural Regions and Census Divisions
Régions agricoles de recensement et divisions de recensement, 2001

- 1 Southern Ontario Region**
Région du Sud de l'Ontario
 - 25 Hamilton Division
 - 26 Niagara Regional Municipality
 - 28 Haldimand-Norfolk Regional Municipality
 - 29 Brant County
 - 32 Oxford County
 - 34 Elgin County
 - 36 Chatham-Kent Division
 - 37 Essex County
 - 38 Lambton County
 - 39 Middlesex County

- 2 Western Ontario Region**
Région de l'Ouest de l'Ontario
 - 21 Peel Regional Municipality
 - 22 Dufferin County
 - 23 Wellington County
 - 24 Halton Regional Municipality
 - 30 Waterloo Regional Municipality
 - 31 Perth County
 - 40 Huron County
 - 41 Bruce County
 - 42 Grey County
 - 43 Simcoe County

- 3 Central Ontario Region**
Région du Centre de l'Ontario
 - 12 Hastings County
 - 13 Prince Edward Division
 - 14 Northumberland County
 - 15 Peterborough County
 - 16 Kawartha Lakes Division
 - 18 Durham Regional Municipality
 - 19 York Regional Municipality
 - 20 Toronto Division
 - 44 Muskoka District Municipality
 - 46 Haliburton County
 - 49 Parry Sound District

- 4 Eastern Ontario Region**
Région de l'Est de l'Ontario
 - 1 Stormont, Dundas and Glengarry United Counties
 - 2 Prescott and Russell United Counties
 - 6 Ottawa Division
 - 7 Leeds and Grenville United Counties
 - 9 Lanark County
 - 10 Frontenac County
 - 11 Lennox and Addington County
 - 47 Renfrew County

- 5 Northern Ontario Region**
Région du Nord de l'Ontario
 - 48 Nipissing District
 - 51 Manitoulin District
 - 52 Sudbury District
 - 53 Greater Sudbury Division
 - 54 Timiskaming District
 - 56 Cochrane District
 - 57 Algoma District
 - 58 Thunder Bay District
 - 59 Rainy River District
 - 60 Kenora District

SECTION 1: Ontario Provincial Yield Averages 1981-2003

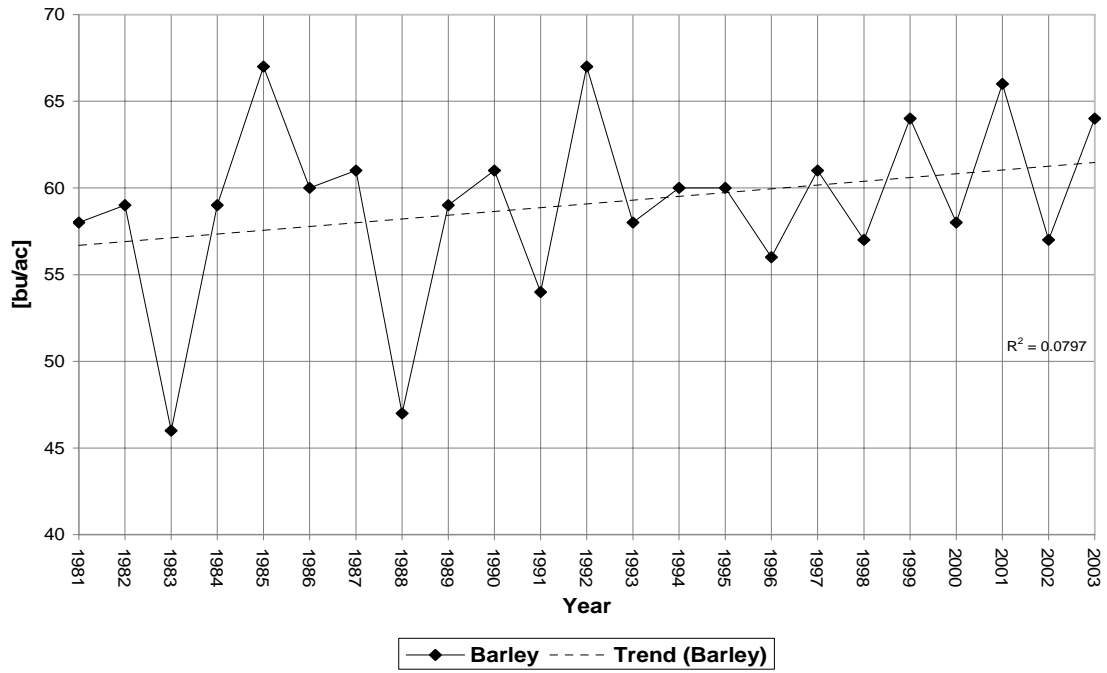
Barley [bu/ac]

Top Census Agricultural Region: Western Ontario
 Top Census Division: Waterloo Regional Municipality

Year	[bu/ac]	% Change of previous year	% of Provincial Average
1981	58	N/A	98.1%
1982	59	1.7%	99.8%
1983*	46	-22.0%	77.8%
1984	59	28.3%	99.8%
1985	67	13.6%	113.4%
1986	60	-10.4%	101.5%
1987	61	1.7%	103.2%
1988	47	-23.0%	79.5%
1989	59	25.5%	99.8%
1990	61	3.4%	103.2%
1991	54	-11.5%	91.4%
1992**	67	24.1%	113.4%
1993	58	-13.4%	98.1%
1994	60	3.4%	101.5%
1995	60	0.0%	101.5%
1996	56	-6.7%	94.8%
1997	61	8.9%	103.2%
1998	57	-6.6%	96.4%
1999	64	12.3%	108.3%
2000	58	-9.4%	98.1%
2001	66	13.8%	111.7%
2002	57	-13.6%	96.4%
2003	64	12.3%	108.3%
Average	59		
Average minus upper (**) & lower (*) points	59		

Year	% of Provincial Average	Rank
1992	113.4%	1
1985	113.4%	1
2001	111.7%	3
2003	108.3%	4
1999	108.3%	4
1997	103.2%	5
1990	103.2%	5
1987	103.2%	5
1995	101.5%	9
1994	101.5%	9
1986	101.5%	9
1989	99.8%	12
1984	99.8%	12
1982	99.8%	12
2000	98.1%	15
1993	98.1%	15
1981	98.1%	15
2002	96.4%	18
1998	96.4%	18
1996	94.8%	20
1991	91.4%	21
1988	79.5%	22
1983	77.8%	23

Barley Provincial Yield Averages 1981-2003



Ontario Provincial Yield Averages 1981-2003

Canola [bu/ac]

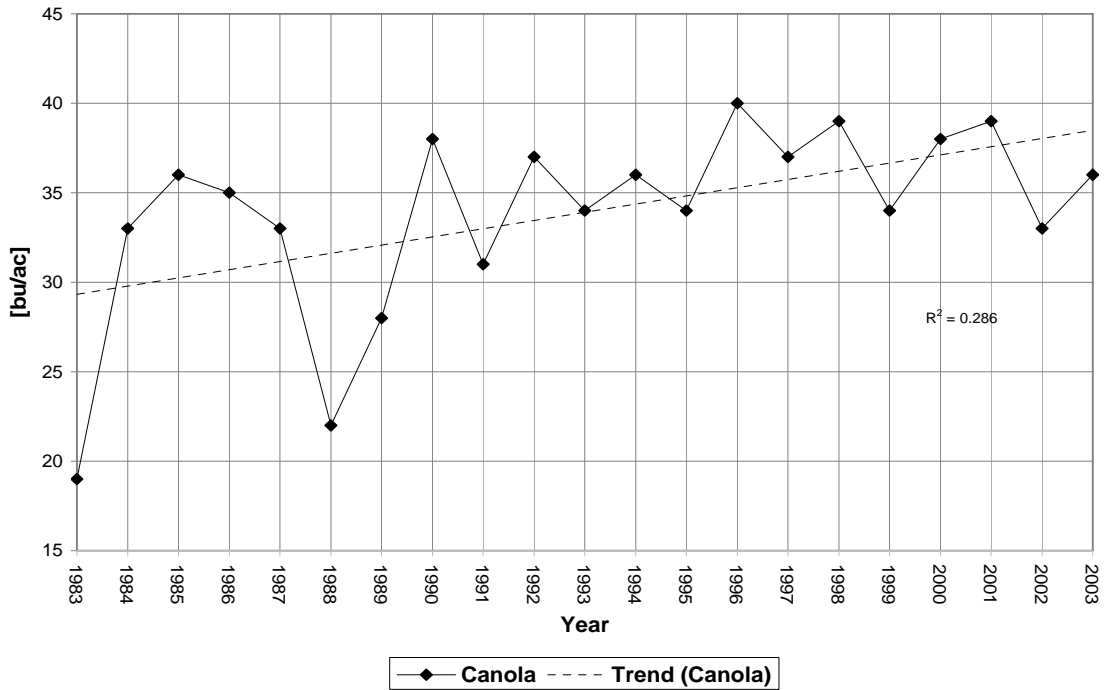
Census Agricultural Region and Census Division data not available

Year	[bu/ac]	% Change of previous year	% of Provincial Average
1981	N/A	N/A	n/a
1982	N/A	N/A	n/a
1983*	19	N/A	55.2%
1984	33	73.7%	95.9%
1985	36	9.1%	104.7%
1986	35	-2.8%	101.7%
1987	33	-5.7%	95.9%
1988	22	-33.3%	64.0%
1989	28	27.3%	81.4%
1990	38	35.7%	110.5%
1991	31	-18.4%	90.1%
1992	37	19.4%	107.6%
1993	34	-8.1%	98.8%
1994	36	5.9%	104.7%
1995	34	-5.6%	98.8%
1996**	40	17.6%	116.3%
1997	37	-7.5%	107.6%
1998	39	5.4%	113.4%
1999	34	-12.8%	98.8%
2000	38	11.8%	110.5%
2001	39	2.6%	113.4%
2002	33	-15.4%	95.9%
2003	36	9.1%	104.7%
Average	34		
Average minus upper (**) & lower (*) points	34		

Year	% of Provincial Average	Rank
1996	116.3%	1
1998	113.4%	2
2001	113.4%	2
1990	110.5%	4
2000	110.5%	4
1992	107.6%	6
1997	107.6%	6
1985	104.7%	8
1994	104.7%	8
2003	104.7%	8
1986	101.7%	11
1993	98.8%	12
1995	98.8%	12
1999	98.8%	12
1984	95.9%	15
1987	95.9%	15
2002	95.9%	15
1991	90.1%	18
1989	81.4%	19
1988	64.0%	20
1983	55.2%	21
1981	n/a	
1982	n/a	

Insufficient data for regional analysis

Canola Provincial Yield Averages 1983-2003



Ontario Provincial Yield Averages 1981-2003

Fodder Corn [tons/ac]

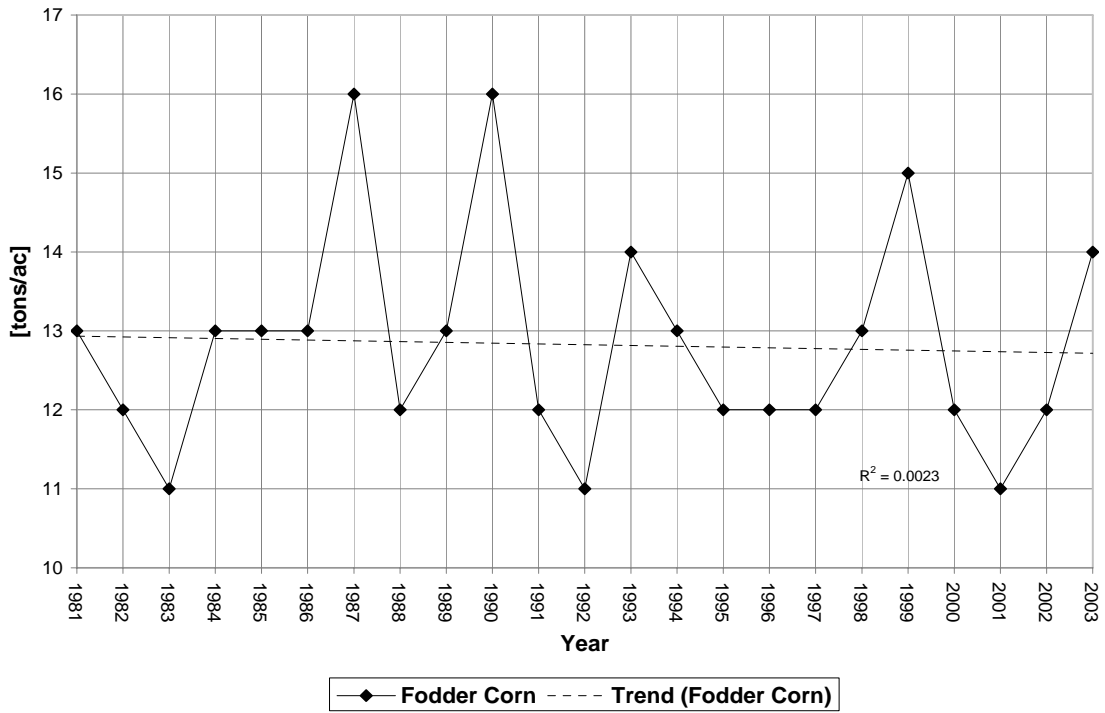
Top Census Agricultural Region: Southern Ontario
 Top Census Division: Halton Regional Municipality

Year	[tons/ac]	% Change of previous year	% of Provincial Average
1981	13	N/A	102.4%
1982	12	-7.7%	94.5%
1983*	11	-8.3%	86.6%
1984	13	18.2%	102.4%
1985	13	0.0%	102.4%
1986	13	0.0%	102.4%
1987	16	23.1%	126.0%
1988	12	-25.0%	94.5%
1989	13	8.3%	102.4%
1990**	16	23.1%	126.0%
1991	12	-25.0%	94.5%
1992	11	-8.3%	86.6%
1993	14	27.3%	110.2%
1994	13	-7.1%	102.4%
1995	12	-7.7%	94.5%
1996	12	0.0%	94.5%
1997	12	0.0%	94.5%
1998	13	8.3%	102.4%
1999	15	15.4%	118.1%
2000	12	-20.0%	94.5%
2001	11	-8.3%	86.6%
2002	12	9.1%	94.5%
2003	14	16.7%	110.2%
Average	13		
Average minus upper (**) & lower	13		

Year	% of Provincial Average	Rank
1990	126.0%	1
1987	126.0%	1
1999	118.1%	3
2003	110.2%	4
1993	110.2%	4
1998	102.4%	6
1994	102.4%	6
1989	102.4%	6
1986	102.4%	6
1985	102.4%	6
1984	102.4%	6
1981	102.4%	6
2002	94.5%	13
2000	94.5%	13
1997	94.5%	13
1996	94.5%	13
1995	94.5%	13
1991	94.5%	13
1988	94.5%	13
1982	94.5%	13
2001	86.6%	21
1992	86.6%	21
1983	86.6%	21

(*) points

Fodder Corn Provincial Yield Averages 1981-2003



Ontario Provincial Yield Averages 1981-2003

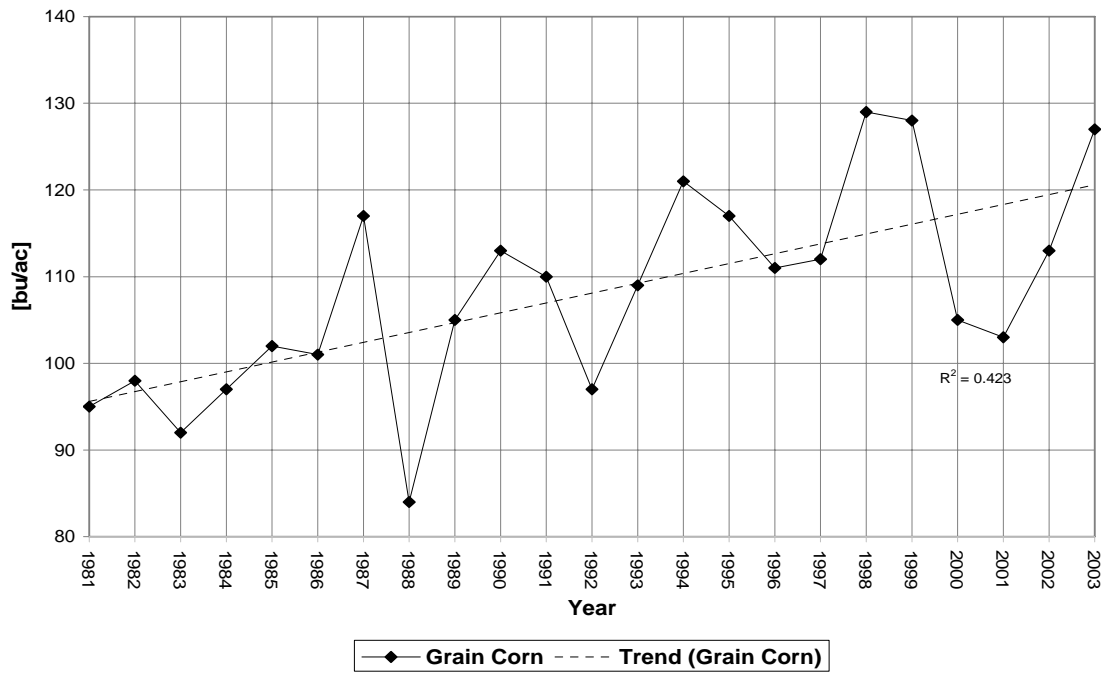
Grain Corn [tons/ac]

Top Census Agricultural Region: Southern Ontario
 Top Census Division: Chatham-Kent Division (formerly Kent)

Year	[bu/ac]	% Change of previous year	% of Provincial Average
1981	95	N/A	87.6%
1982	98	3.2%	90.4%
1983	92	-6.1%	84.9%
1984	97	5.4%	89.5%
1985	102	5.2%	94.1%
1986	101	-1.0%	93.2%
1987	117	15.8%	107.9%
1988*	84	-28.2%	77.5%
1989	105	25.0%	96.9%
1990	113	7.6%	104.2%
1991	110	-2.7%	101.5%
1992	97	-11.8%	89.5%
1993	109	12.4%	100.6%
1994	121	11.0%	111.6%
1995	117	-3.3%	107.9%
1996	111	-5.1%	102.4%
1997	112	0.9%	103.3%
1998**	129	15.2%	119.0%
1999	128	-0.8%	118.1%
2000	105	-18.0%	96.9%
2001	103	-1.9%	95.0%
2002	113	9.7%	104.2%
2003	127	12.4%	117.2%
Average	108		
Average minus upper (**) & lower (*) points	108		

Year	% of Provincial Average	Rank
1998	119.0%	1
1999	118.1%	2
2003	117.2%	3
1994	111.6%	4
1995	107.9%	5
1987	107.9%	5
2002	104.2%	7
1990	104.2%	7
1997	103.3%	9
1996	102.4%	10
1991	101.5%	11
1993	100.6%	12
2000	96.9%	13
1989	96.9%	13
2001	95.0%	15
1985	94.1%	16
1986	93.2%	17
1982	90.4%	18
1992	89.5%	19
1984	89.5%	20
1981	87.6%	21
1983	84.9%	22
1988	77.5%	23

Grain Corn Provincial Yield Averages 1981-2003



Ontario Provincial Yield Averages 1981-2003

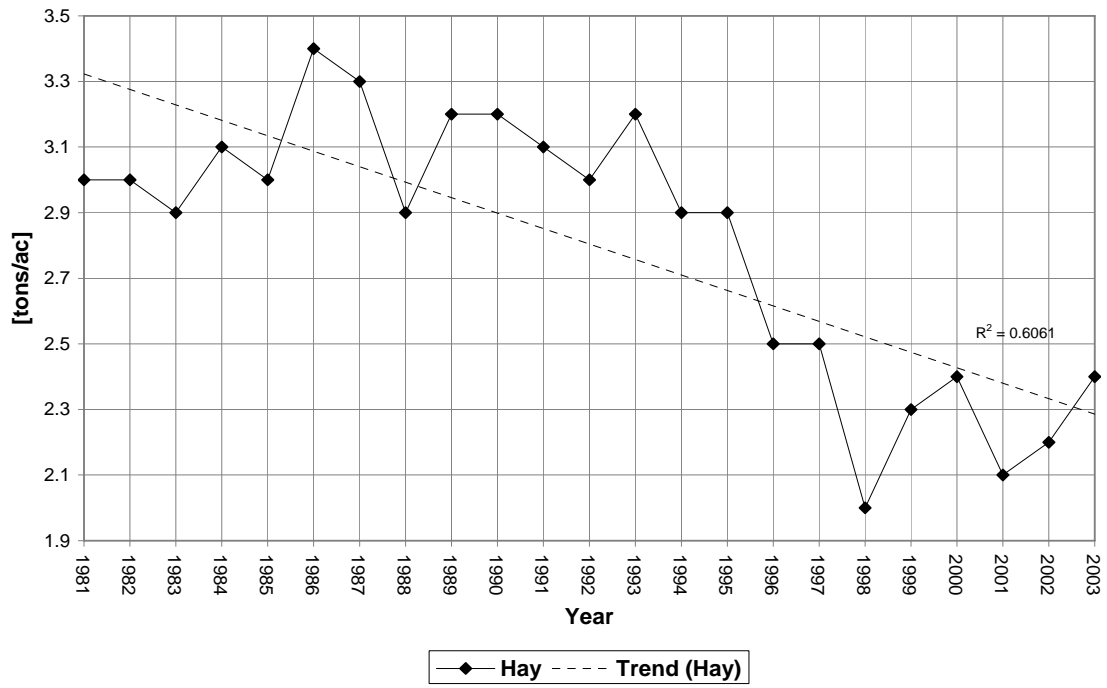
Hay [tons/ac]

*Top Census Agricultural Region: Southern Ontario
Top Census Division: tie between 5 census divisions, see section 3*

Year	[tons/acre]	% Change of previous year	% of Provincial Average
1981	3	N/A	106.8%
1982	3	0.0%	106.8%
1983	2.9	-3.3%	103.2%
1984	3.1	6.9%	110.3%
1985	3	-3.2%	106.8%
1986**	3.4	13.3%	121.0%
1987	3.3	-2.9%	117.4%
1988	2.9	-12.1%	103.2%
1989	3.2	10.3%	113.9%
1990	3.2	0.0%	113.9%
1991	3.1	-3.1%	110.3%
1992	3	-3.2%	106.8%
1993	3.2	6.7%	113.9%
1994	2.9	-9.4%	103.2%
1995	2.9	0.0%	103.2%
1996	2.5	-13.8%	89.0%
1997	2.5	0.0%	89.0%
1998*	2	-20.0%	71.2%
1999	2.3	15.0%	81.9%
2000	2.4	4.3%	85.4%
2001	2.1	-12.5%	74.7%
2002	2.2	4.8%	78.3%
2003	2.4	9.1%	85.4%
Average	2.8		
Average minus upper (**) & lower (*) points	2.8		

Year	% of Provincial Average	Rank
1986	121.0%	1
1987	117.4%	2
1993	113.9%	3
1990	113.9%	3
1989	113.9%	3
1991	110.3%	6
1984	110.3%	6
1992	106.8%	8
1985	106.8%	8
1982	106.8%	8
1981	106.8%	8
1995	103.2%	12
1994	103.2%	12
1988	103.2%	12
1983	103.2%	12
1997	89.0%	16
1996	89.0%	16
2003	85.4%	18
2000	85.4%	18
1999	81.9%	20
2002	78.3%	21
2001	74.7%	22
1998	71.2%	23

Hay Provincial Yield Averages 1981-2003



Ontario Provincial Yield Averages 1981-2003

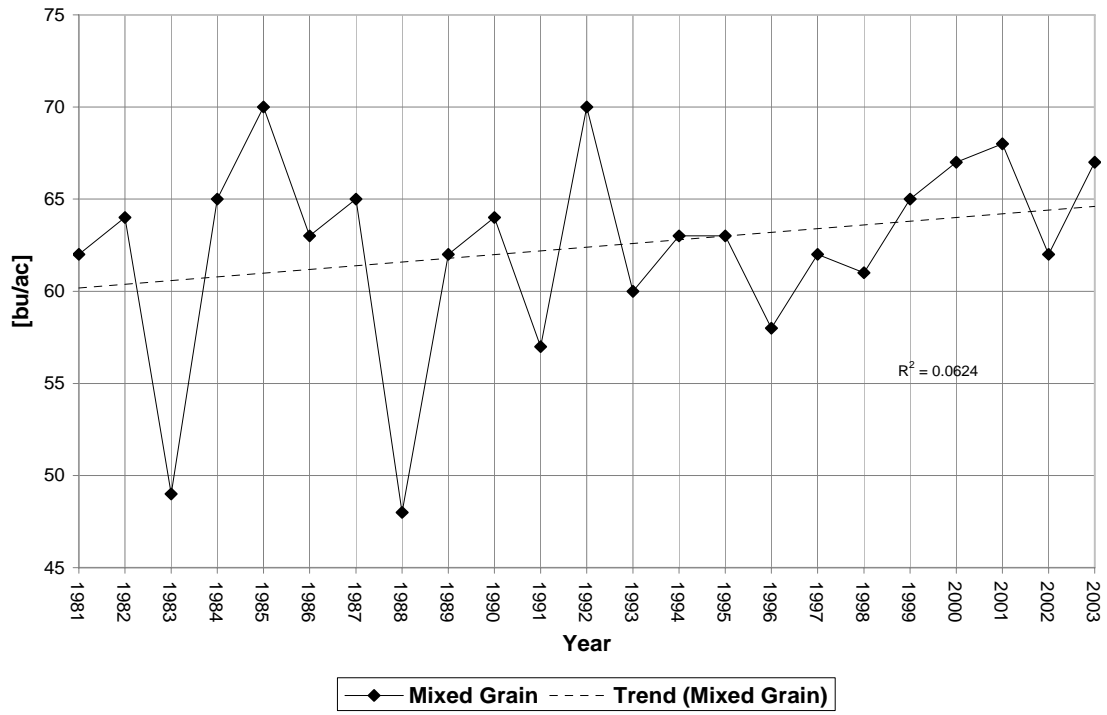
Mixed Grain [bu/ac]

Top Census Agricultural Region: Western Ontario
Top Census Division: Middlesex

Year	[bu/ac]	% Change of previous year	% of Provincial Average
1981	62	N/A	98.9%
1982	64	3.2%	102.1%
1983	49	-23.4%	78.1%
1984	65	32.7%	103.7%
1985	70	7.7%	111.6%
1986	63	-10.0%	100.5%
1987*	65	3.2%	103.7%
1988	48	-26.2%	76.6%
1989	62	29.2%	98.9%
1990	64	3.2%	102.1%
1991	57	-10.9%	90.9%
1992**	70	22.8%	111.6%
1993	60	-14.3%	95.7%
1994	63	5.0%	100.5%
1995	63	0.0%	100.5%
1996	58	-7.9%	92.5%
1997	62	6.9%	98.9%
1998	61	-1.6%	97.3%
1999	65	6.6%	103.7%
2000	67	3.1%	106.9%
2001	68	1.5%	108.5%
2002	62	-8.8%	98.9%
2003	67	8.1%	106.9%
Average	62		
Average minus upper (**) & lower (*) points	62		

Year	% of Provincial Average	Rank
1992	111.6%	1
1985	111.6%	1
2001	108.5%	3
2003	106.9%	4
2000	106.9%	4
1999	103.7%	6
1987	103.7%	6
1984	103.7%	6
1990	102.1%	9
1982	102.1%	9
1995	100.5%	11
1994	100.5%	11
1986	100.5%	11
2002	98.9%	14
1997	98.9%	15
1989	98.9%	15
1981	98.9%	15
1998	97.3%	18
1993	95.7%	19
1996	92.5%	20
1991	90.9%	21
1983	78.1%	22
1988	76.6%	23

Mixed Grain Provincial Yield Averages 1981-2003



Ontario Provincial Yield Averages 1981-2003

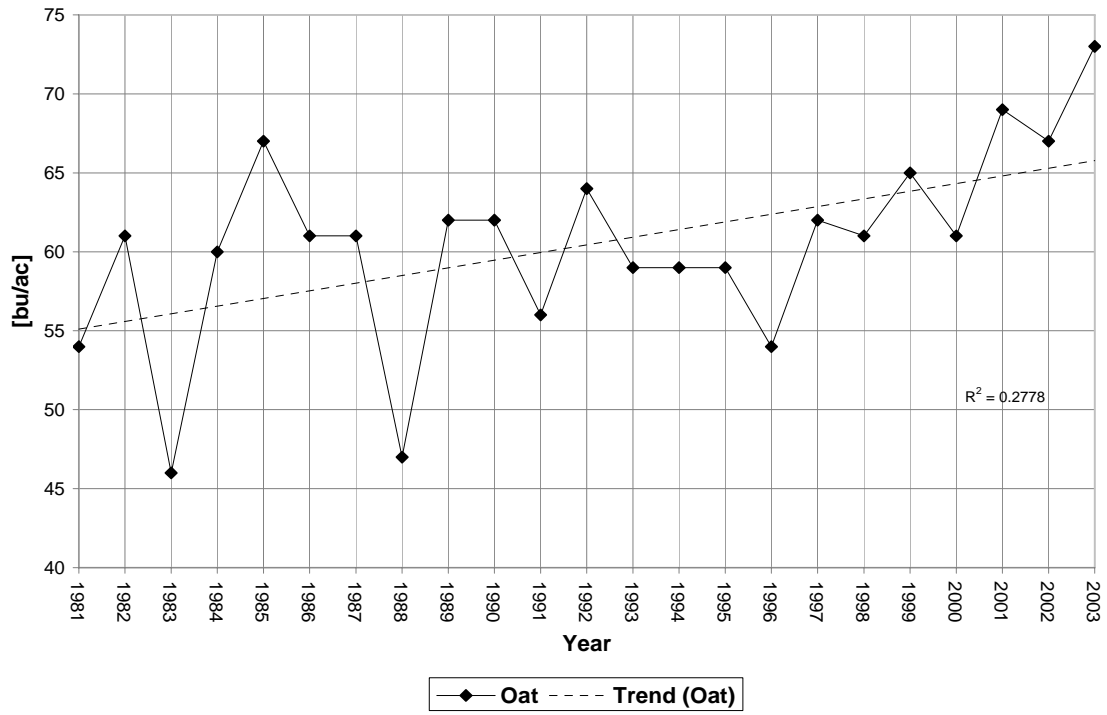
Oat [bu/ac]

Top Census Agricultural Region: Western Ontario
Top Census Division: Waterloo Regional Municipality

Year	[bu/ac]	% Change of previous year	% of Provincial Average
1981	54	N/A	88.5%
1982	61	13.0%	100.0%
1983*	46	-24.6%	75.4%
1984	60	30.4%	98.4%
1985	67	11.7%	109.8%
1986	61	-9.0%	100.0%
1987	61	0.0%	100.0%
1988	47	-23.0%	77.0%
1989	62	31.9%	101.6%
1990	62	0.0%	101.6%
1991	56	-9.7%	91.8%
1992	64	14.3%	104.9%
1993	59	-7.8%	96.7%
1994	59	0.0%	96.7%
1995	59	0.0%	96.7%
1996	54	-8.5%	88.5%
1997	62	14.8%	101.6%
1998	61	-1.6%	100.0%
1999	65	6.6%	106.6%
2000	61	-6.2%	100.0%
2001	69	13.1%	113.1%
2002	67	-2.9%	109.8%
2003**	73	9.0%	119.7%
Average	60		
Average minus upper (**) & lower (*) points	61		

Year	% of Provincial Average	Rank
2003	119.7%	1
2001	113.1%	2
2002	109.8%	3
1985	109.8%	3
1999	106.6%	5
1992	104.9%	6
1997	101.6%	7
1990	101.6%	7
1989	101.6%	7
2000	100.0%	10
1998	100.0%	10
1987	100.0%	10
1986	100.0%	10
1982	100.0%	10
1984	98.4%	15
1995	96.7%	16
1994	96.7%	16
1993	96.7%	16
1991	91.8%	19
1996	88.5%	20
1981	88.5%	20
1988	77.0%	22
1983	75.4%	23

Oat Provincial Yield Averages 1981-2003



Ontario Provincial Yield Averages 1981-2003

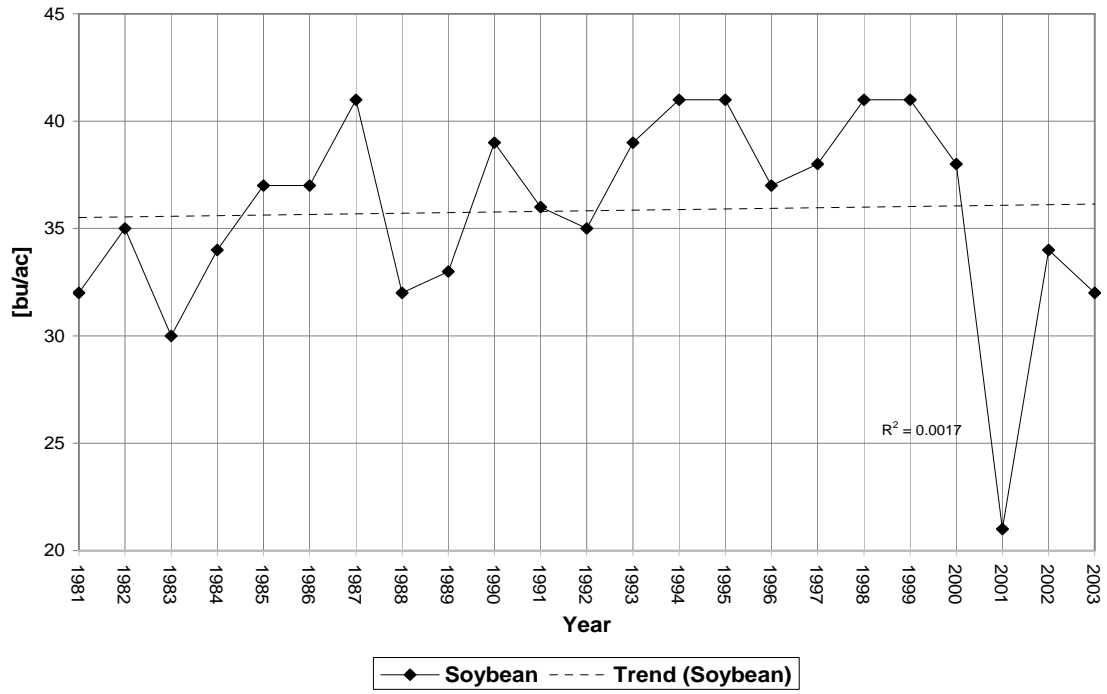
Soybean [bu/ac]

Top Census Agricultural Region: Eastern Ontario
Top Census Division: Perth

Year	[bu/ac]	% Change of previous year	% of Provincial Average
1981	32	N/A	88.2%
1982	35	9.4%	96.4%
1983	30	-14.3%	82.6%
1984	34	13.3%	93.7%
1985	37	8.8%	101.9%
1986	37	0.0%	101.9%
1987	41	10.8%	112.9%
1988	32	-22.0%	88.2%
1989	33	3.1%	90.9%
1990	39	18.2%	107.4%
1991	36	-7.7%	99.2%
1992	35	-2.8%	96.4%
1993	39	11.4%	107.4%
1994	41	5.1%	112.9%
1995	41	0.0%	112.9%
1996	37	-9.8%	101.9%
1997	38	2.7%	104.7%
1998	41	7.9%	112.9%
1999**	41	0.0%	112.9%
2000	38	-7.3%	104.7%
2001*	21	-44.7%	57.9%
2002	34	61.9%	93.7%
2003	32	-5.9%	88.2%
Average	36		
Average minus upper (**) & lower (*) points	36		

Year	% of Provincial Average	Rank
1999	112.9%	1
1998	112.9%	1
1995	112.9%	1
1994	112.9%	1
1987	112.9%	1
1993	107.4%	6
1990	107.4%	6
2000	104.7%	6
1997	104.7%	6
1996	101.9%	10
1986	101.9%	10
1985	101.9%	10
1991	99.2%	13
1992	96.4%	14
1982	96.4%	14
2002	93.7%	15
1984	93.7%	15
1989	90.9%	18
2003	88.2%	19
1988	88.2%	19
1981	88.2%	19
1983	82.6%	22
2001	57.9%	23

Soybean Provincial Yield Averages 1981-2003



Ontario Provincial Yield Averages 1981-2003

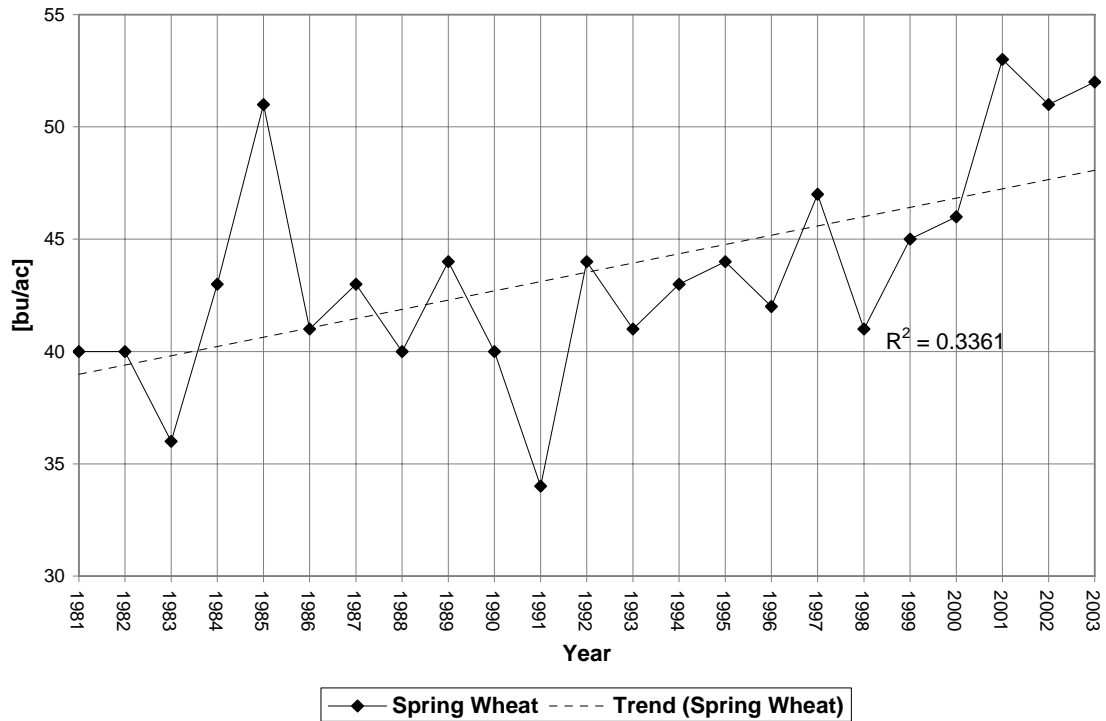
Spring Wheat [bu/ac]

Top Census Agricultural Region: Central Ontario
Top Census Division: Essex

Year	[bu/ac]	% Change of previous year	% of Average
1981	40	N/A	90.9%
1982	40	0.0%	90.9%
1983	36	-10.0%	81.8%
1984	43	19.4%	97.7%
1985	51	18.6%	115.9%
1986	41	-19.6%	93.2%
1987	43	4.9%	97.7%
1988	40	-7.0%	90.9%
1989	44	10.0%	100.0%
1990	40	-9.1%	90.9%
1991*	34	-15.0%	77.3%
1992	44	29.4%	100.0%
1993	41	-6.8%	93.2%
1994	43	4.9%	97.7%
1995	44	2.3%	100.0%
1996	42	-4.5%	95.5%
1997	47	11.9%	106.8%
1998	41	-12.8%	93.2%
1999	45	9.8%	102.3%
2000	46	2.2%	104.5%
2001**	53	15.2%	120.5%
2002	51	-3.8%	115.9%
2003	52	2.0%	118.2%
Average	44		
Average minus upper (**) & lower (*) points	44		

Year	% of Average	Rank
2001	120.5%	1
2003	118.2%	2
2002	115.9%	3
1985	115.9%	3
1997	106.8%	5
2000	104.5%	6
1999	102.3%	7
1995	100.0%	8
1992	100.0%	8
1989	100.0%	8
1994	97.7%	11
1987	97.7%	11
1984	97.7%	11
1996	95.5%	14
1998	93.2%	15
1993	93.2%	15
1986	93.2%	15
1990	90.9%	18
1988	90.9%	18
1982	90.9%	18
1981	90.9%	18
1983	81.8%	22
1991	77.3%	23

Spring Wheat Provincial Yield Averages 1981-2003



Ontario Provincial Yield Averages 1981-2003

Top Census Agricultural Region: Central Ontario
 Top Census Division: Haldimand-Norfolk Regional Municipality

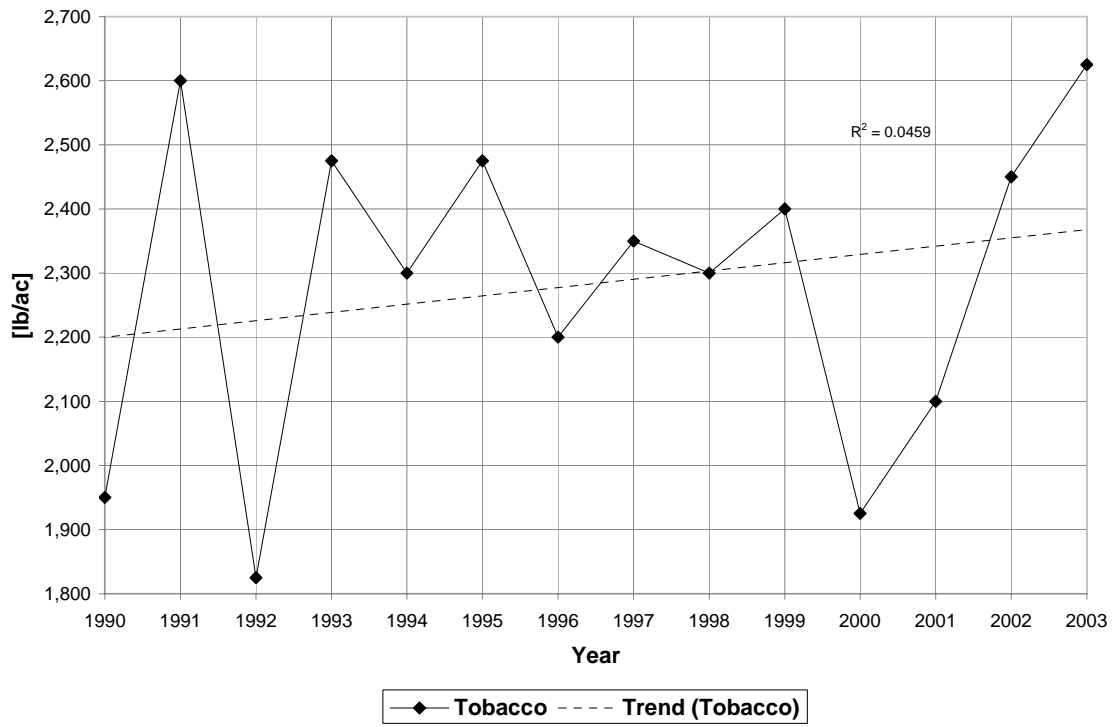
Tobacco (1990-2003) [lbs/ac]

Year	[lb/ca]	%Change from previous year	% of Average
1990	1,950	N/A	85.0%
1991	2,600	33.3%	113.4%
1992*	1,825	-29.8%	79.6%
1993	2,475	35.6%	107.9%
1994	2,300	-7.1%	100.3%
1995	2,475	7.6%	107.9%
1996	2,200	-11.1%	95.9%
1997	2,350	6.8%	102.5%
1998	2,300	-2.1%	100.3%
1999	2,400	4.3%	104.6%
2000	1,925	-19.8%	83.9%
2001	2,100	9.1%	91.6%
2002	2,450	16.7%	106.8%
2003**	2,625	7.1%	114.4%
Average	2,284		
Average minus upper (**) & lower (*) points	2327		

Year	% of Average	Rank
2003	114.4%	1
1991	113.4%	2
1995	107.9%	3
1993	107.9%	3
2002	106.8%	5
1999	104.6%	6
1997	102.5%	7
1998	100.3%	8
1994	100.3%	8
1996	95.9%	10
2001	91.6%	11
1990	85.0%	12
2000	83.9%	13
1992	79.6%	14

Data only available from 1998-2003

Tobacco Provincial Yield Average 1990-2003



Ontario Provincial Yield Averages 1981-2003

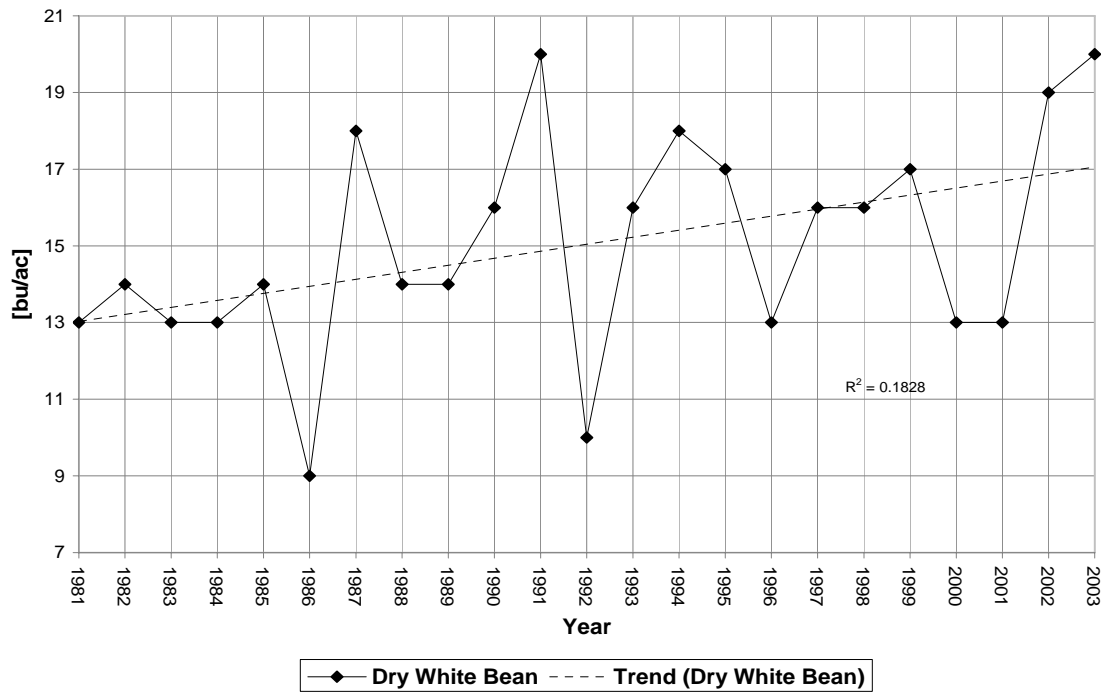
White Beans [cwt/ac]

Top Census Agricultural Region: Southern & Central Ontario
Top Census Division: Perth

Year	[cwt/ac]	% Change of previous year	% of Provincial Average
1981	13	N/A	86.1%
1982	14	7.7%	92.7%
1983	13	-7.1%	86.1%
1984	13	0.0%	86.1%
1985	14	7.7%	92.7%
1986*	9	-35.7%	59.6%
1987	18	100.0%	119.2%
1988	14	-22.2%	92.7%
1989	14	0.0%	92.7%
1990	16	14.3%	106.0%
1991	20	25.0%	132.5%
1992	10	-50.0%	66.2%
1993	16	60.0%	106.0%
1994	18	12.5%	119.2%
1995	17	-5.6%	112.6%
1996	13	-23.5%	86.1%
1997	16	23.1%	106.0%
1998	16	0.0%	106.0%
1999	17	6.3%	112.6%
2000	13	-23.5%	86.1%
2001	13	0.0%	86.1%
2002	19	46.2%	125.8%
2003*	20	5.3%	132.5%
Average	15		
Average minus upper (**) & lower (*) points	15		

Year	% of Provincial Average	Rank
2003	132.5%	1
1991	132.5%	1
2002	125.8%	3
1994	119.2%	4
1987	119.2%	4
1999	112.6%	6
1995	112.6%	6
1998	106.0%	8
1997	106.0%	8
1993	106.0%	8
1990	106.0%	8
1989	92.7%	12
1988	92.7%	12
1985	92.7%	12
1982	92.7%	12
2001	86.1%	16
2000	86.1%	16
1996	86.1%	16
1984	86.1%	16
1983	86.1%	16
1981	86.1%	16
1992	66.2%	22
1986	59.6%	23

White Bean Provincial Yield Averages 1981-2003



Ontario Provincial Yield Averages 1981-2003

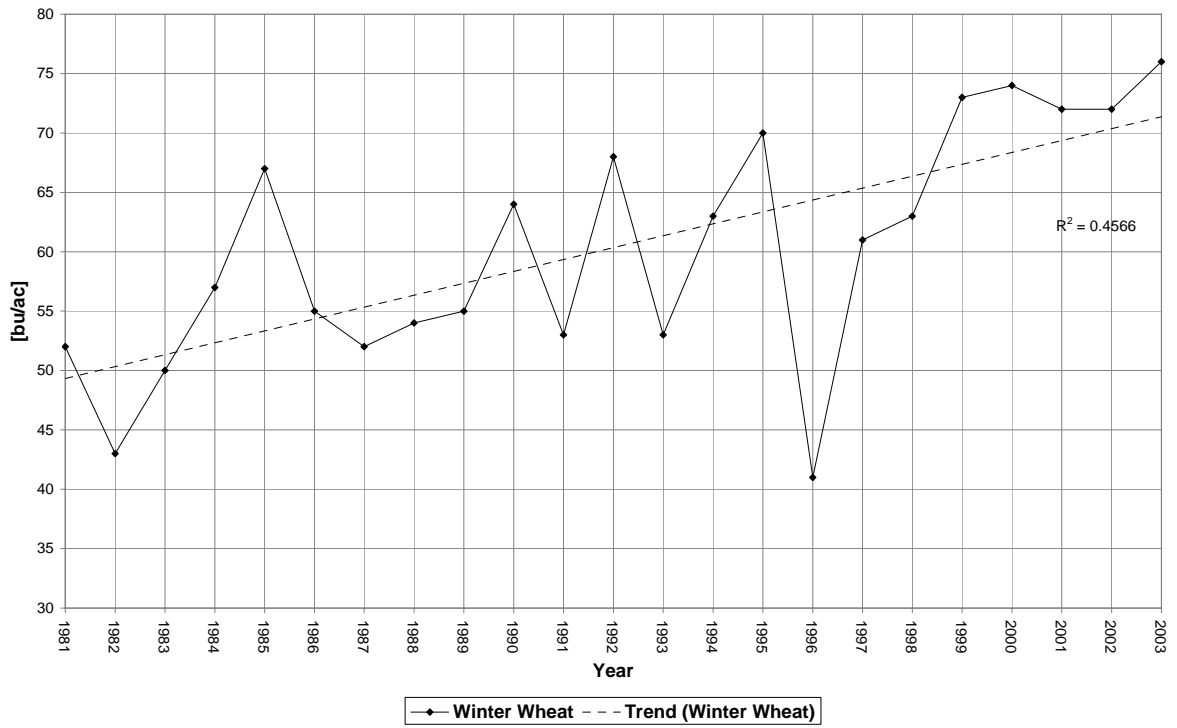
Winter Wheat [bu/ac]

Top Census Agricultural Region: Western Ontario
Top Census Division: Perth

Year	[bu/ac]	% Change of previous year	% of Provincial Average
1981	52	N/A	86.0%
1982	43	-17.3%	71.1%
1983	50	16.3%	82.6%
1984	57	14.0%	94.2%
1985	67	17.5%	110.7%
1986	55	-17.9%	90.9%
1987	52	-5.5%	86.0%
1988	54	3.8%	89.3%
1989	55	1.9%	90.9%
1990	64	16.4%	105.8%
1991	53	-17.2%	87.6%
1992	68	28.3%	112.4%
1993	53	-22.1%	87.6%
1994	63	18.9%	104.1%
1995	70	11.1%	115.7%
1996*	41	-41.4%	67.8%
1997	61	48.8%	100.8%
1998	63	3.3%	104.1%
1999	73	15.9%	120.7%
2000	74	1.4%	122.3%
2001	72	-2.7%	119.0%
2002	72	0.0%	119.0%
2003**	76	5.6%	125.6%
Average	60		
Average minus upper (**) & lower (*) points	61		

Year	% of Provincial Average	Rank
2003	125.6%	1
2000	122.3%	2
1999	120.7%	3
2002	119.0%	4
2001	119.0%	4
1995	115.7%	6
1992	112.4%	7
1985	110.7%	8
1990	105.8%	9
1998	104.1%	10
1994	104.1%	10
1997	100.8%	12
1984	94.2%	13
1989	90.9%	14
1986	90.9%	14
1988	89.3%	16
1993	87.6%	17
1991	87.6%	17
1987	86.0%	19
1981	86.0%	19
1983	82.6%	21
1982	71.1%	22
1996	67.8%	23

Winter Wheat Provincial Yield Averages 1981-2003



SECTION 2: Census Agricultural Regions (CARs) % of Average 1998-2004

Barley [bu/ac]

CARs percentage of provincial average 1998-2004

Southern Ontario			Western Ontario			Central Ontario		
Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%
1998	47.1	79.4%	1998	57.7	97.3%	1998	51.8	87.3%
1999	61.5	103.7%	1999	64.9	109.4%	1999	65.6	110.6%
2000	63.3	106.7%	2000	67.2	113.3%	2000	58	97.8%
2001	66.9	112.8%	2001	69.5	117.1%	2001	64.6	108.9%
2002	56	94.4%	2002	58	97.8%	2002	52.7	88.8%
2003	65.4	110.2%	2003	66	111.2%	2003	59.5	100.3%
2004	51.9	87.5%	2004	65.7	110.7%	2004	61.1	103.0%

Eastern Ontario			Northern Ontario			All of Ontario		
Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%
1998	53.1	89.5%	1998	64.1	108.0%	1998	56.5	95.2%
1999	61.6	103.8%	1999	58.6	98.8%	1999	63.5	107.0%
2000	57.5	96.9%	2000	60.2	101.5%	2000	61.4	103.5%
2001	64.1	108.0%	2001	55.2	93.0%	2001	66.1	111.4%
2002	56.4	95.1%	2002	57.1	96.2%	2002	56.9	95.9%
2003	56.8	95.7%	2003	65.6	110.6%	2003	63.5	107.0%
2004	63.9	107.7%	2004	64	107.9%	2004	63.8	107.5%

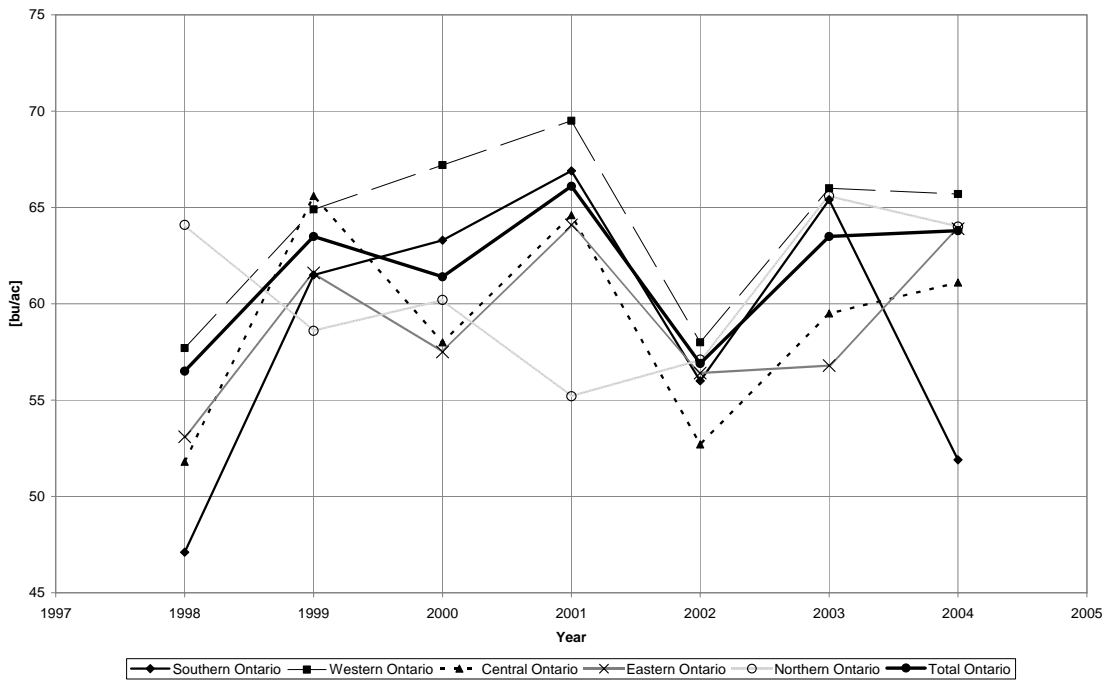
Rankings of CARs percentage of provincial average 1998-2004 (largest to smallest)

Southern Ontario			Western Ontario			Central Ontario		
Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%
2001	66.9	112.8%	2001	69.5	117.1%	1999	65.6	110.6%
2003	65.4	110.2%	2000	67.2	113.3%	2001	64.6	108.9%
2000	63.3	106.7%	2003	66	111.2%	2004	61.1	103.0%
1999	61.5	103.7%	2004	65.7	110.7%	2003	59.5	100.3%
2002	56	94.4%	1999	64.9	109.4%	2002	52.7	88.8%
2004	51.9	87.5%	2002	58	97.8%	2002	52.7	88.8%
1998	47.1	79.4%	1998	57.7	97.3%	1998	51.8	87.3%

Eastern Ontario			Northern Ontario			All of Ontario		
Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%
2001	64.1	108.0%	2003	65.6	110.6%	2001	66.1	111.4%
2004	63.9	107.7%	1998	64.1	108.0%	2004	63.8	107.5%
1999	61.6	103.8%	2004	64	107.9%	1999	63.5	107.0%
2000	57.5	96.9%	2000	60.2	101.5%	2003	63.5	107.0%
2003	56.8	95.7%	1999	58.6	98.8%	2000	61.4	103.5%
2002	56.4	95.1%	2002	57.1	96.2%	2002	56.9	95.9%
1998	53.1	89.5%	2001	55.2	93.0%	1998	56.5	95.2%

Provincial yield average from 1981-2003 for barley was calculated to be 59 [bu/ac]

Barley Census Agricultural Regional Yields 1998-2004



Yield for 2001 in Northern Ontario was the lowest for time period of 1998-2004 with 93% of the provincial average. Yield for 2002 was the second lowest for all other regions in Ontario with the exception of Southern Ontario where it was the third lowest. Yields ranged from 89% - 98% of the provincial average. The graph indicates that yield in 2002 was generally low for all regions across Ontario.

Census Agricultural Regions (CARs) % of Average 1998-2004

Fodder Corn [tons/ac]

CARs percentage of provincial average 1998-2004

Southern Ontario			Western Ontario			Central Ontario		
Year	Yield [tons/ac]	%	Year	Yield [tons/ac]	%	Year	Yield [tons/ac]	%
1998	14.6	114.4%	1998	12.4	97.2%	1998	11.2	87.8%
1999	16.1	126.2%	1999	15.4	120.7%	1999	14.7	115.2%
2000	13.6	106.6%	2000	11.8	92.5%	2000	11.9	93.3%
2001	11.5	90.1%	2001	11.7	91.7%	2001	7.8	61.1%
2002	13.6	106.6%	2002	11.9	93.3%	2002	12.1	94.8%
2003	16	125.4%	2003	14.1	110.5%	2003	13.4	105.0%
2004	15.8	123.8%	2004	15.7	123.0%	2004	15.4	120.7%

Eastern Ontario			Northern Ontario			All of Ontario		
Year	Yield [tons/ac]	%	Year	Yield [tons/ac]	%	Year	Yield [tons/ac]	%
1998	13.8	108.2%	1998	11.8	92.5%	1998	13	101.9%
1999	14.8	116.0%	1999	12.8	100.3%	1999	15.3	119.9%
2000	12	94.0%	2000	12	94.0%	2000	12.3	96.4%
2001	9.3	72.9%	2001	8.9	69.7%	2001	10.6	83.1%
2002	12.1	94.8%	2002	11.3	88.6%	2002	12.3	96.4%
2003	14	109.7%	2003	11	86.2%	2003	14.4	112.9%
2004	16.6	130.1%	2004	13.9	108.9%	2004	15.9	124.6%

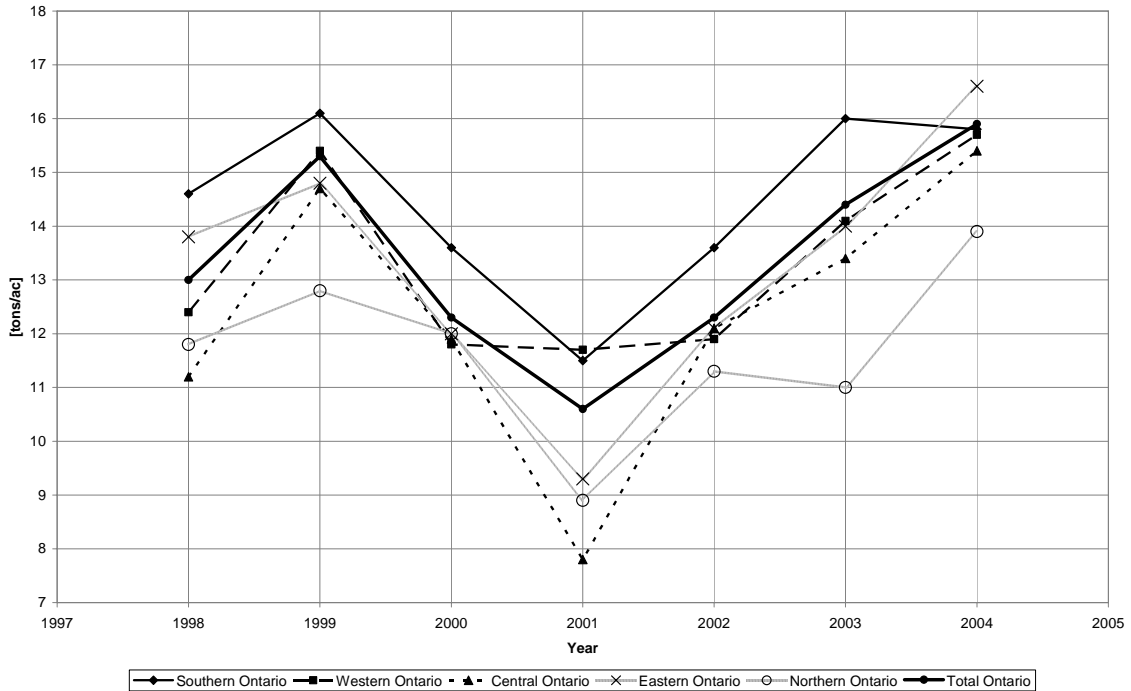
Rankings of CARs percentage of provincial average 1998-2004 (largest to smallest)

Southern Ontario			Western Ontario			Central Ontario		
Year	Yield [tons/ac]	%	Year	Yield [tons/ac]	%	Year	Yield [tons/ac]	%
1999	16.1	126.2%	2004	15.7	123.0%	2004	15.4	120.7%
2003	16	125.4%	1999	15.4	120.7%	1999	14.7	115.2%
2004	15.8	123.8%	2003	14.1	110.5%	2003	13.4	105.0%
1998	14.6	114.4%	1998	12.4	97.2%	2002	12.1	94.8%
2000	13.6	106.6%	2002	11.9	93.3%	2000	11.9	93.3%
2002	13.6	106.6%	2000	11.8	92.5%	1998	11.2	87.8%
2001	11.5	90.1%	2001	11.7	91.7%	2001	7.8	61.1%

Eastern Ontario			Northern Ontario			All of Ontario		
Year	Yield [tons/ac]	%	Year	Yield [tons/ac]	%	Year	Yield [tons/ac]	%
2004	16.6	130.1%	2004	13.9	108.9%	2004	15.9	124.6%
1999	14.8	116.0%	1999	12.8	100.3%	1999	15.3	119.9%
2003	14	109.7%	2000	12	94.0%	2003	14.4	112.9%
1998	13.8	108.2%	1998	11.8	92.5%	1998	13	101.9%
2002	12.1	94.8%	2002	11.3	88.6%	2000	12.3	96.4%
2000	12	94.0%	2003	11	86.2%	2002	12.3	96.4%
2001	9.3	72.9%	2001	8.9	69.7%	2001	10.6	83.1%

Provincial yield average from 1981-2003 for fodder corn was calculated to be 13 [tons/ac]

Fodder Corn Census Agricultural Regional Yields 1998-2004



Yield in 2001 was the lowest yield year for all regions in Ontario with the lowest yield located in Central Ontario where yield was 61.1% of the provincial average. Yield for other regions for this year ranged from 70% - 92% of the provincial average. The graph indicates a gradual decrease in yield which started in 1999 and bottomed out in 2001. The change in yield from 2001 to 2002 is very apparent for all regions on the graph with the exception Western Ontario where it only increased slightly.

Census Agricultural Regions (CARs) % of Average 1998-2004

Grain Corn [bu/ac]

CARs percentage of provincial average 1998-2004

Southern Ontario			Western Ontario			Central Ontario		
Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%
1998	137.3	126.8%	1998	117	108.1%	1998	117.6	108.6%
1999	127.8	118.1%	1999	130.7	120.8%	1999	118	109.0%
2000	116	107.2%	2000	101.6	93.9%	2000	94.9	87.7%
2001	104.1	96.2%	2001	110.4	102.0%	2001	79.9	73.8%
2002	104	96.1%	2002	125	115.5%	2002	120	110.9%
2003	132.1	122.0%	2003	122	112.7%	2003	111.7	103.2%
2004	135.8	125.5%	2004	124.9	115.4%	2004	116.8	107.9%

Eastern Ontario			Northern Ontario			All of Ontario		
Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%
1998	132.7	122.6%	1998	88.2	81.5%	1998	128.8	119.0%
1999	131.6	121.6%	1999	111	102.5%	1999	128.3	118.5%
2000	83.3	77.0%	2000	59	54.5%	2000	105.1	97.1%
2001	97.6	90.2%	2001	65.7	60.7%	2001	103.1	95.3%
2002	114	105.3%	2002	102	94.2%	2002	113	104.4%
2003	131.8	121.8%	2003	113.9	105.2%	2003	127	117.3%
2004	139.5	128.9%	2004	89.4	82.6%	2004	131.3	121.3%

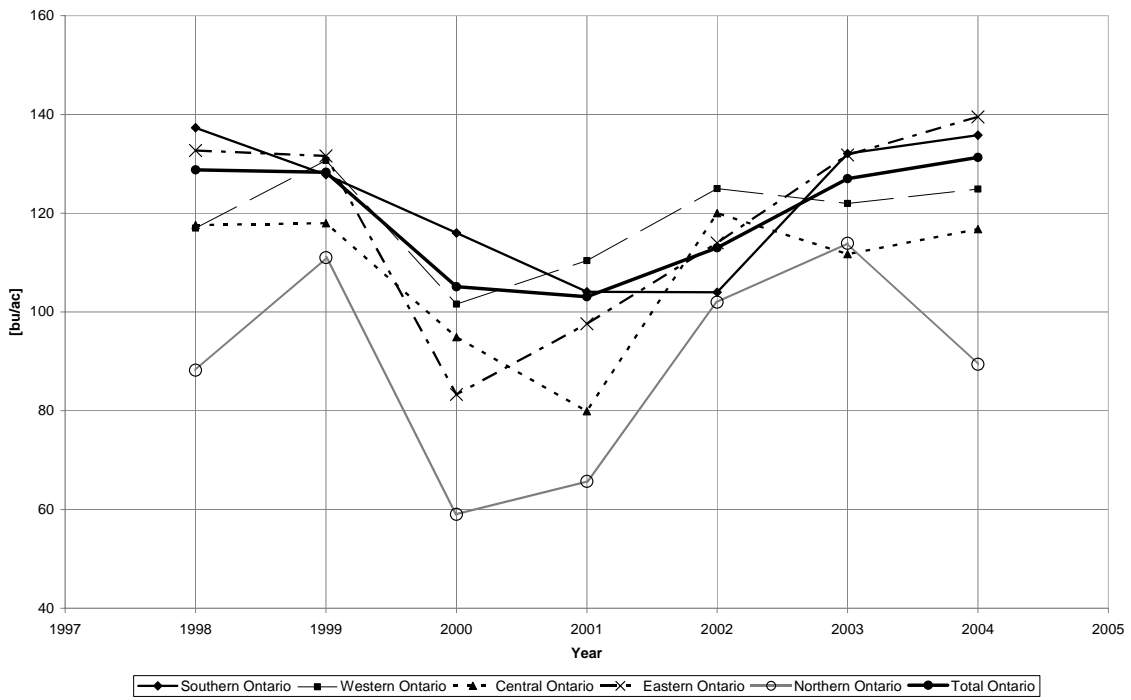
Rankings of CARs percentage of provincial average 1998-2004 (largest to smallest)

Southern Ontario			Western Ontario			Central Ontario		
Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%
1998	137.3	126.8%	1999	130.7	120.8%	2002	120	110.9%
2004	135.8	125.5%	2002	125	115.5%	1999	118	109.0%
2003	132.1	122.0%	2004	124.9	115.4%	1998	117.6	108.6%
1999	127.8	118.1%	2003	122	112.7%	2004	116.8	107.9%
2000	116	107.2%	1998	117	108.1%	2003	111.7	103.2%
2001	104.1	96.2%	2001	110.4	102.0%	2000	94.9	87.7%
2002	104	96.1%	2000	101.6	93.9%	2001	79.9	73.8%

Eastern Ontario			Northern Ontario			All of Ontario		
Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%
2004	139.5	128.9%	2003	113.9	105.2%	2004	131.3	121.3%
1998	132.7	122.6%	1999	111	102.5%	1998	128.8	119.0%
2003	131.8	121.8%	2002	102	94.2%	1999	128.3	118.5%
1999	131.6	121.6%	2004	89.4	82.6%	2003	127	117.3%
2002	114	105.3%	1998	88.2	81.5%	2002	113	104.4%
2001	97.6	90.2%	2001	65.7	60.7%	2000	105.1	97.1%
2000	83.3	77.0%	2000	59	54.5%	2001	103.1	95.3%

Provincial yield average from 1981-2003 for grain corn was calculated to be 108 [bu/ac]

Grain Corn Census Agricultural Regional Yields 1998-2004



Yield in 2001 was the lowest for Central Ontario, with it having the worst yield of 73.8% of the provincial average. The yield for all of Ontario was also the lowest yield year with 95.3% of the provincial average. Yields in 2001 were the second lowest yield year for the rest of the regions and ranged from 61% - 102% of the provincial average.

Census Agricultural Regions (CARs) % of Average 1998-2004

Hay [tons/ac]

CARs percentage of provincial average 1998-2004

Southern Ontario			Western Ontario			Central Ontario		
Year	Yield [tons/ac]	%	Year	Yield [tons/ac]	%	Year	Yield [tons/ac]	%
1998	2.3	81.9%	1998	2.2	78.3%	1998	2	71.2%
1999	2.5	89.0%	1999	2.4	85.4%	1999	2.2	78.3%
2000	2.7	96.1%	2000	2.6	92.5%	2000	2.3	81.9%
2001	2.5	89.0%	2001	2.3	81.9%	2001	1.8	64.1%
2002	2.2	78.3%	2002	2.1	74.7%	2002	2.1	74.7%
2003	2.6	92.5%	2003	2.5	89.0%	2003	2.2	78.3%
2004	2.8	99.6%	2004	2.6	92.5%	2004	2.3	81.9%

Eastern Ontario			Northern Ontario			All of Ontario		
Year	Yield [tons/ac]	%	Year	Yield [tons/ac]	%	Year	Yield [tons/ac]	%
1998	2	71.2%	1998	1.7	60.5%	1998	2.1	74.7%
1999	2.3	81.9%	1999	2.2	78.3%	1999	2.3	81.9%
2000	2.3	81.9%	2000	2.8	99.6%	2000	2.4	85.4%
2001	1.9	67.6%	2001	1.8	64.1%	2001	2.1	74.7%
2002	2.3	81.9%	2002	2.6	92.5%	2002	2.2	78.3%
2003	2.4	85.4%	2003	2.6	92.5%	2003	2.4	85.4%
2004	2.1	74.7%	2004	1.9	67.6%	2004	2.4	85.4%

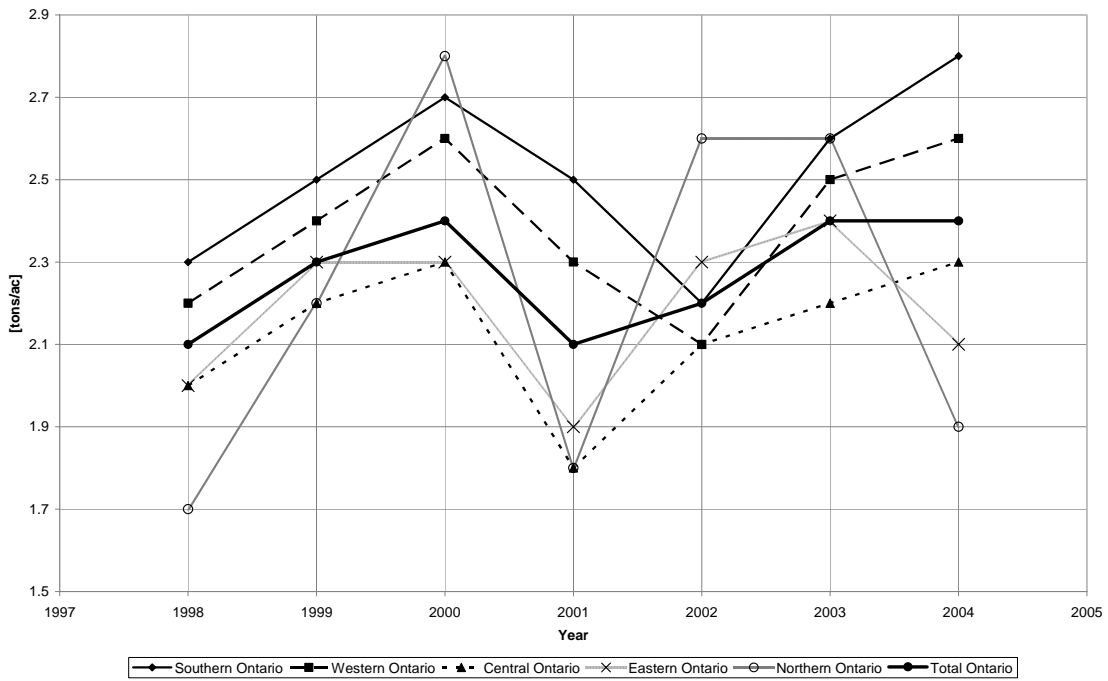
Rankings of CARs percentage of provincial average 1998-2004 (largest to smallest)

Southern Ontario			Western Ontario			Central Ontario		
Year	Yield [tons/ac]	%	Year	Yield [tons/ac]	%	Year	Yield [tons/ac]	%
2004	2.8	99.6%	2000	2.6	92.5%	2000	2.3	81.9%
2000	2.7	96.1%	2004	2.6	92.5%	2004	2.3	81.9%
2003	2.6	92.5%	2003	2.5	89.0%	1999	2.2	78.3%
1999	2.5	89.0%	1999	2.4	85.4%	2003	2.2	78.3%
2001	2.5	89.0%	2001	2.3	81.9%	2002	2.1	74.7%
1998	2.3	81.9%	1998	2.2	78.3%	1998	2	71.2%
2002	2.2	78.3%	2002	2.1	74.7%	2001	1.8	64.1%

Eastern Ontario			Northern Ontario			All of Ontario		
Year	Yield [tons/ac]	%	Year	Yield [tons/ac]	%	Year	Yield [tons/ac]	%
2003	2.4	85.4%	2000	2.8	99.6%	2000	2.4	85.4%
1999	2.3	81.9%	2002	2.6	92.5%	2003	2.4	85.4%
2000	2.3	81.9%	2003	2.6	92.5%	2004	2.4	85.4%
2002	2.3	81.9%	1999	2.2	78.3%	1999	2.3	81.9%
2004	2.1	74.7%	2004	1.9	67.6%	2002	2.2	78.3%
1998	2	71.2%	2001	1.8	64.1%	1998	2.1	74.7%
2001	1.9	67.6%	1998	1.7	60.5%	2001	2.1	74.7%

Provincial yield average from 1981-2003 for hay was calculated to be 2.8 [tons/ac]

Hay Census Agricultural Regional Yields 1998-2004



Yield in 2001 was the lowest for Eastern Ontario and Central Ontario. Both regions were around mid-60% of the provincial average. Yield in 2001 for other regions ranged from 64% to 89% of the provincial average. Yield in 2002 was the lowest yield year for Southern Ontario and Western Ontario with approximately three quarters of the provincial average.

Census Agricultural Regions (CARs) % of Average 1998-2004

Mixed Grain [bu/ac]

CARs percentage of provincial average 1998-2004

Southern Ontario			Western Ontario			Central Ontario		
Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%
1998	53	84.5%	1998	62.0	98.9%	1998	58.9	93.9%
1999	65.9	105.1%	1999	69.5	110.8%	1999	57.5	91.7%
2000	67.9	108.3%	2000	69.9	111.5%	2000	57.9	92.3%
2001	68.8	109.7%	2001	71.5	114.0%	2001	56.7	90.4%
2002	65.7	104.8%	2002	63.8	101.7%	2002	57	90.9%
2003	71.9	114.7%	2003	69.2	110.3%	2003	61.6	98.2%
2004	68	108.4%	2004	68.9	109.9%	2004	64.1	102.2%

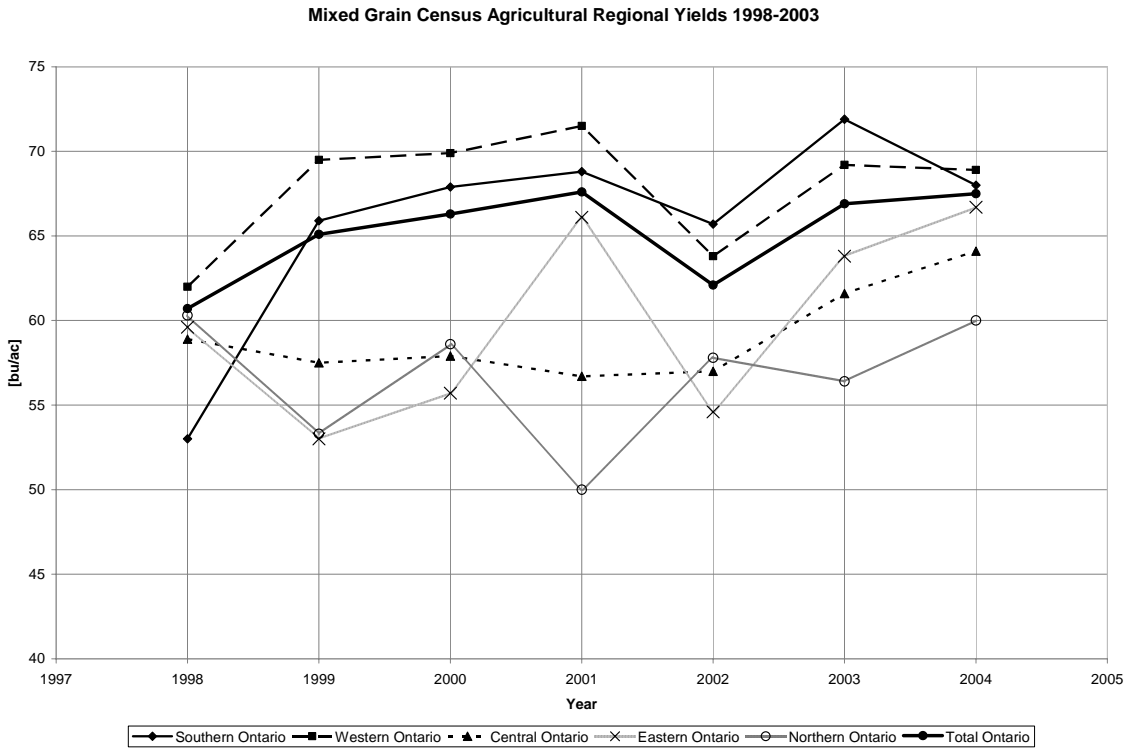
Eastern Ontario			Northern Ontario			All of Ontario		
Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%
1998	59.6	95.0%	1998	60.3	96.2%	1998	60.7	96.8%
1999	53	84.5%	1999	53.3	85.0%	1999	65.1	103.8%
2000	55.7	88.8%	2000	58.6	93.4%	2000	66.3	105.7%
2001	66.1	105.4%	2001	50.0	79.7%	2001	67.6	107.8%
2002	54.6	87.1%	2002	57.8	92.2%	2002	62.1	99.0%
2003	63.8	101.7%	2003	56.4	89.9%	2003	66.9	106.7%
2004	66.7	106.4%	2004	60.0	95.7%	2004	67.5	107.6%

Rankings of CARs percentage of provincial average 1998-2004 (largest to smallest)

Southern Ontario			Western Ontario			Central Ontario		
Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%
2003	71.9	114.7%	2001	71.5	114.0%	2004	64.1	102.2%
2001	68.8	109.7%	2000	69.9	111.5%	2003	61.6	98.2%
2004	68	108.4%	1999	69.5	110.8%	1998	58.9	93.9%
2000	67.9	108.3%	2003	69.2	110.3%	2000	57.9	92.3%
1999	65.9	105.1%	2004	68.9	109.9%	1999	57.5	91.7%
2002	65.7	104.8%	2002	63.8	101.7%	2002	57	90.9%
1998	53	84.5%	1998	62.0	98.9%	2001	56.7	90.4%

Eastern Ontario			Northern Ontario			All of Ontario		
Year	Yield	%	Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%
2004	66.7	106.4%	1998	60.3	96.2%	2001	67.6	107.8%
2001	66.1	105.4%	2004	60.0	95.7%	2004	67.5	107.6%
2003	63.8	101.7%	2000	58.6	93.4%	2003	66.9	106.7%
1998	59.6	95.0%	2002	57.8	92.2%	2000	66.3	105.7%
2000	55.7	88.8%	2003	56.4	89.9%	1999	65.1	103.8%
2002	54.6	87.1%	1999	53.3	85.0%	2002	62.1	99.0%
1999	53	84.5%	2001	50.0	79.7%	1998	60.7	96.8%

Provincial yield average from 1981-2003 for mixed grain was calculated to be 63 [bu/ac]



Yield in 2001 was the lowest yield year for Northern Ontario with 80% of the provincial average. Yield in 2001 for other regions ranged from 92% - 114% of the provincial average.

Census Agricultural Regions (CARs) % of Average 1998-2004 Oat [bu/ac]

CARs percentage of provincial average 1998-2004

Southern Ontario			Western Ontario			Central Ontario		
Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%
1998	48	78.7%	1998	64.7	106.1%	1998	63.3	103.8%
1999	70	114.8%	1999	70.3	115.2%	1999	64.9	106.4%
2000	63.3	103.8%	2000	67.2	110.2%	2000	56.7	93.0%
2001	83.8	137.4%	2001	80.8	132.5%	2001	69.8	114.4%
2002	66.9	109.7%	2002	71.9	117.9%	2002	65.9	108.0%
2003	73.2	120.0%	2003	77.3	126.7%	2003	66.4	108.9%
2004	69.9	114.6%	2004	72.3	118.5%	2004	73.1	119.8%

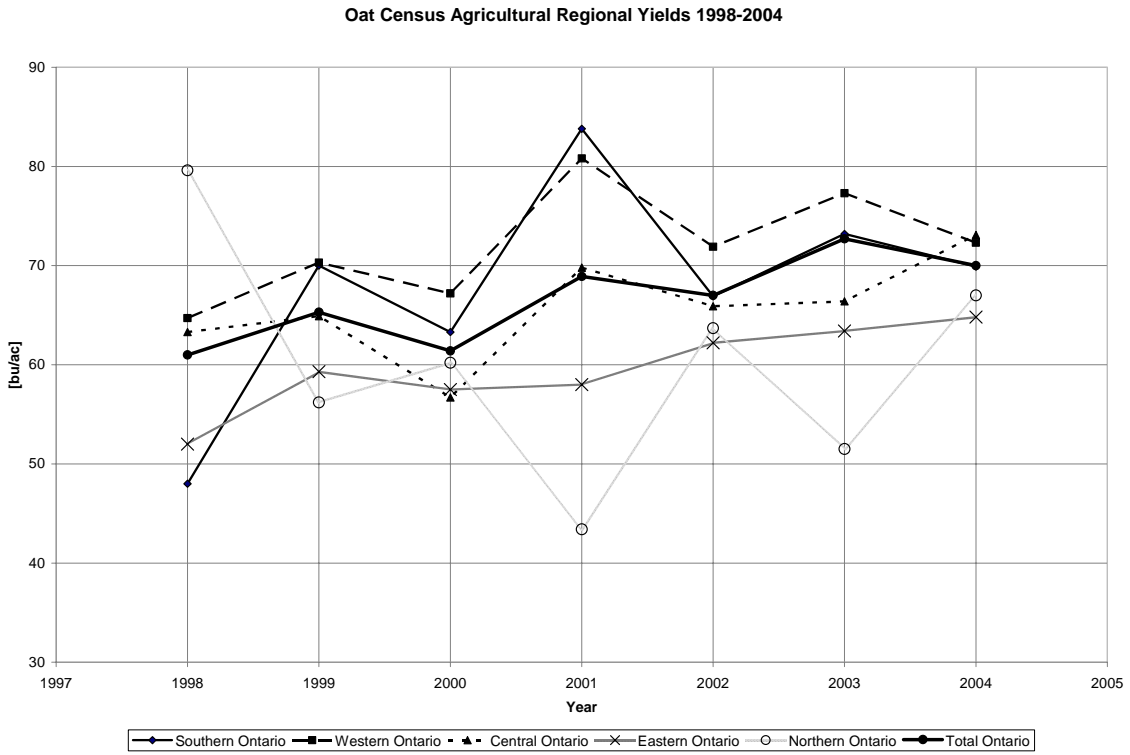
Eastern Ontario			Northern Ontario			All of Ontario		
Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%
1998	52	85.2%	1998	79.6	130.5%	1998	61	100.0%
1999	59.3	97.2%	1999	56.2	92.1%	1999	65.3	107.0%
2000	57.5	94.3%	2000	60.2	98.7%	2000	61.4	100.7%
2001	58	95.1%	2001	43.4	71.1%	2001	68.9	113.0%
2002	62.2	102.0%	2002	63.7	104.4%	2002	67	109.8%
2003	63.4	103.9%	2003	51.5	84.4%	2003	72.7	119.2%
2004	64.8	106.2%	2004	67	109.8%	2004	70	114.8%

Rankings of CARs percentage of provincial average 1998-2004 (largest to smallest)

Southern Ontario			Western Ontario			Central Ontario		
Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%
2001	83.8	137.4%	2001	80.8	132.5%	2004	73.1	119.8%
2003	73.2	120.0%	2003	77.3	126.7%	2001	69.8	114.4%
1999	70	114.8%	2004	72.3	118.5%	2003	66.4	108.9%
2004	69.9	114.6%	2002	71.9	117.9%	2002	65.9	108.0%
2002	66.9	109.7%	1999	70.3	115.2%	1999	64.9	106.4%
2000	63.3	103.8%	2000	67.2	110.2%	1998	63.3	103.8%
1998	48	78.7%	1998	64.7	106.1%	2000	56.7	93.0%

Eastern Ontario			Northern Ontario			All of Ontario		
Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%
2004	64.8	106.2%	1998	79.6	130.5%	2003	72.7	119.2%
2003	63.4	103.9%	2004	67	109.8%	2004	70	114.8%
2002	62.2	102.0%	2002	63.7	104.4%	2001	68.9	113.0%
1999	59.3	97.2%	2000	60.2	98.7%	2002	67	109.8%
2001	58	95.1%	1999	56.2	92.1%	1999	65.3	107.0%
2000	57.5	94.3%	2003	51.5	84.4%	2000	61.4	100.7%
1998	52	85.2%	2001	43.4	71.1%	1998	61	100.0%

Provincial yield average from 1981-2003 for oat was calculated to be 61 [bu/ac]



Yield in 2001 was the lowest yield year for Northern Ontario with 71% of the provincial average. Yield in 2001 for other regions ranged from 95% - 137% of the provincial average.

Census Agricultural Regions (CARs) % of Average 1998-2004 Soybean [bu/ac]

CARs percentage of provincial average 1998-2004

Southern Ontario			Western Ontario			Central Ontario		
Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%
1998	42.5	118.1%	1998	36.9	102.5%	1998	39.8	110.6%
1999	40.6	112.8%	1999	41.6	115.6%	1999	35	97.2%
2000	38.9	108.1%	2000	38	105.6%	2000	33.3	92.5%
2001	20.9	58.1%	2001	21.8	60.6%	2001	16	44.4%
2002	32.7	90.8%	2002	37.3	103.6%	2002	35.7	99.2%
2003	29.6	82.2%	2003	35.6	98.9%	2003	28	77.8%
2004	40.8	113.3%	2004	39.5	109.7%	2004	35.4	98.3%

Eastern Ontario			Northern Ontario			All of Ontario		
Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%
1998	44.5	123.6%	1998	26.7	74.2%	1998	41	113.9%
1999	41.1	114.2%	1999	31.7	88.1%	1999	40.5	112.5%
2000	36	100.0%	2000	26	72.2%	2000	38	105.6%
2001	24.3	67.5%	2001	18.1	50.3%	2001	21.1	58.6%
2002	32.4	90.0%	2002	29	80.6%	2002	33.9	94.2%
2003	41.4	115.0%	2003	32.1	89.2%	2003	32.1	89.2%
2004	35.9	99.7%	2004	28.4	78.9%	2004	28.4	78.9%

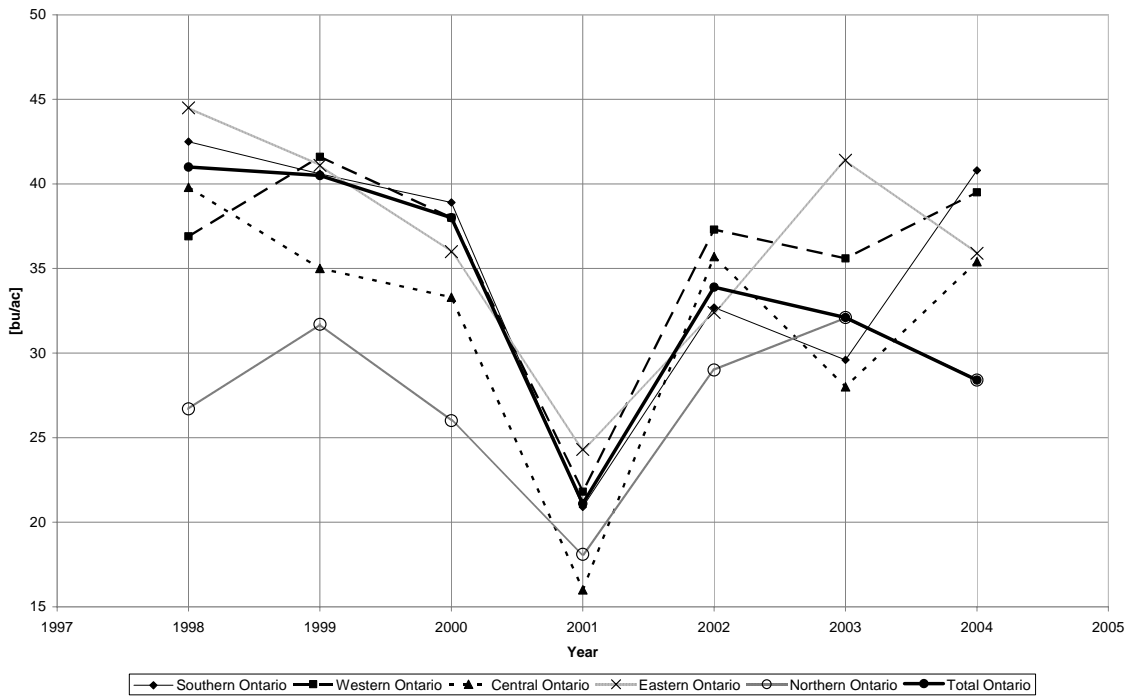
Rankings of CARs percentage of provincial average 1998-2004 (largest to smallest)

Southern Ontario			Western Ontario			Central Ontario		
Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%
1998	42.5	118.1%	1999	41.6	115.6%	1998	39.8	110.6%
2004	40.8	113.3%	2004	39.5	109.7%	2002	35.7	99.2%
1999	40.6	112.8%	2000	38	105.6%	2004	35.4	98.3%
2000	38.9	108.1%	2002	37.3	103.6%	1999	35	97.2%
2002	32.7	90.8%	1998	36.9	102.5%	2000	33.3	92.5%
2003	29.6	82.2%	2003	35.6	98.9%	2003	28	77.8%
2001	20.9	58.1%	2001	21.8	60.6%	2001	16	44.4%

Eastern Ontario			Northern Ontario			All of Ontario		
Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%
1998	44.5	123.6%	2003	32.1	89.2%	1998	41	113.9%
2003	41.4	115.0%	1999	31.7	88.1%	1999	40.5	112.5%
1999	41.1	114.2%	2002	29	80.6%	2000	38	105.6%
2000	36	100.0%	2004	28.4	78.9%	2002	33.9	94.2%
2004	35.9	99.7%	1998	26.7	74.2%	2003	32.1	89.2%
2002	32.4	90.0%	2000	26	72.2%	2004	28.4	78.9%
2001	24.3	67.5%	2001	18.1	50.3%	2001	21.1	58.6%

Provincial yield average from 1981-2003 for soybean was calculated to be 36 [bu/ac]

Soybean Census Agricultural Regional Yields 1998-2004



Yield in 2001 was the lowest yield year for all regions in Ontario. The greatest decrease was in Central Ontario with 44.4% of the provincial average. Yields in 2001 for other regions ranged from 50 - 68% of the provincial average.

Census Agricultural Regions (CARs) % of Average 1998-2004

Spring Wheat [bu/ac]

CARs percentage of provincial average 1998-2004

Southern Ontario			Western Ontario			Central Ontario		
Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%
1998	n/a	n/a	1998	n/a	n/a	1998	n/a	n/a
1999	n/a	n/a	1999	n/a	n/a	1999	n/a	n/a
2000	n/a	n/a	2000	n/a	n/a	2000	n/a	n/a
2001	74.9	170.2%	2001	69.9	158.9%	2001	61.5	139.8%
2002	51.6	117.3%	2002	51.1	116.1%	2002	48.9	111.1%
2003	47.1	107.0%	2003	53.1	120.7%	2003	47	106.8%
2004	60.5	137.5%	2004	49.3	112.0%	2004	39.3	89.3%

Eastern Ontario			Northern Ontario			All of Ontario		
Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%
1998	n/a	n/a	1998	n/a	n/a	1998	n/a	n/a
1999	n/a	n/a	1999	n/a	n/a	1999	n/a	n/a
2000	n/a	n/a	2000	n/a	n/a	2000	n/a	n/a
2001	60	136.4%	2001	57.1	129.8%	2001	71.9	163.4%
2002	47.9	108.9%	2002	53.7	122.0%	2002	50.6	115.0%
2003	52.1	118.4%	2003	51.5	117.0%	2003	52.2	118.6%
2004	52.8	120.0%	2004	53.5	121.6%	2004	50.8	115.5%

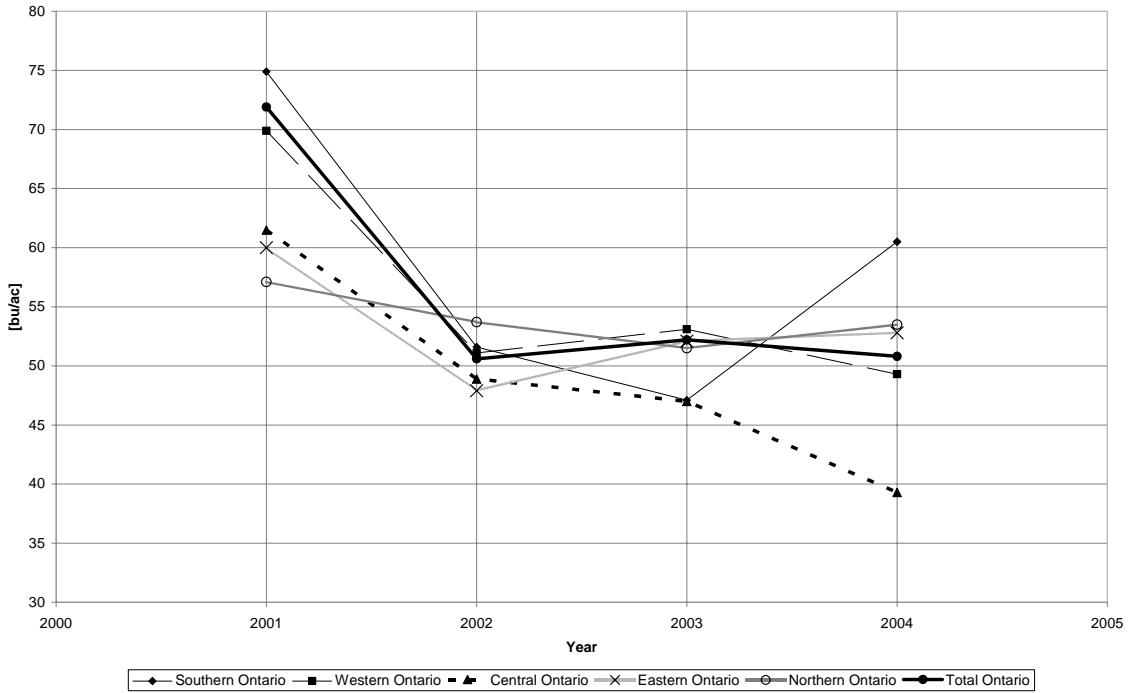
Rankings of CARs percentage of provincial average 1998-2004 (largest to smallest)

Southern Ontario			Western Ontario			Central Ontario		
Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%
2001	74.9	170.2%	2001	69.9	158.9%	2001	61.5	139.8%
2004	60.5	137.5%	2003	53.1	120.7%	2002	48.9	111.1%
2002	51.6	117.3%	2002	51.1	116.1%	2003	47	106.8%
2003	47.1	107.0%	2004	49.3	112.0%	2004	39.3	89.3%
1998	n/a	n/a	1998	n/a	n/a	1998	n/a	n/a
1999	n/a	n/a	1999	n/a	n/a	1999	n/a	n/a
2000	n/a	n/a	2000	n/a	n/a	2000	n/a	n/a

Eastern Ontario			Northern Ontario			All of Ontario		
Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%
2001	60	136.4%	2001	57.1	129.8%	2001	71.9	163.4%
2004	52.8	120.0%	2002	53.7	122.0%	2003	52.2	118.6%
2003	52.1	118.4%	2004	53.5	121.6%	2004	50.8	115.5%
2002	47.9	108.9%	2003	51.5	117.0%	2002	50.6	115.0%
1998	n/a	n/a	1998	n/a	n/a	1998	n/a	n/a
1999	n/a	n/a	1999	n/a	n/a	1999	n/a	n/a
2000	n/a	n/a	2000	n/a	n/a	2000	n/a	n/a

Provincial yield average from 1981-2003 for spring wheat was calculated to be 44 [bu/ac]

Spring Wheat Census Agricultural Regional Yields 2001-2004



Yield in 2001 was the highest yield year for all regions in Ontario with Southern Ontario yields at 170% of the provincial average. Yield in 2001 for other regions ranged from 130% to 160% of the provincial average.

Census Agricultural Regions (CARs) % of Average 1998-2004

White Bean [bu/ac]

CARs percentage of provincial average 1998-2004

Southern Ontario			Western Ontario			Central Ontario		
Year	Yield [cwt/ac]	%	Year	Yield [cwt/ac]	%	Year	Yield [cwt/ac]	%
1998	n/a	n/a	1998	n/a	n/a	1998	n/a	n/a
1999	n/a	n/a	1999	n/a	n/a	1999	n/a	n/a
2000	n/a	n/a	2000	n/a	n/a	2000	n/a	n/a
2001	12.7	84.1%	2001	14	92.7%	2001	10.9	72.2%
2002	18.1	119.9%	2002	19.3	127.8%	2002	16.1	106.6%
2003	20.4	135.1%	2003	20	132.5%	2003	18.7	123.8%
2004	20.4	135.1%	2004	18.3	121.2%	2004	18.9	125.2%

Eastern Ontario			Northern Ontario			All of Ontario		
Year	Yield [cwt/ac]	%	Year	Yield [cwt/ac]	%	Year	Yield [cwt/ac]	%
1998	n/a	n/a	1998	n/a	n/a	1998	16	106.0%
1999	n/a	n/a	1999	n/a	n/a	1999	n/a	n/a
2000	n/a	n/a	2000	n/a	n/a	2000	13.3	88.1%
2001	11.7	77.5%	2001	8	53.0%	2001	13.1	86.8%
2002	14.8	98.0%	2002	n/a	n/a	2002	18.5	122.5%
2003	20.7	137.1%	2003	n/a	n/a	2003	20	132.5%
2004	20.7	137.1%	2004	n/a	n/a	2004	19	125.8%

Rankings of CARs percentage of provincial average 1998-2004 (largest to smallest)

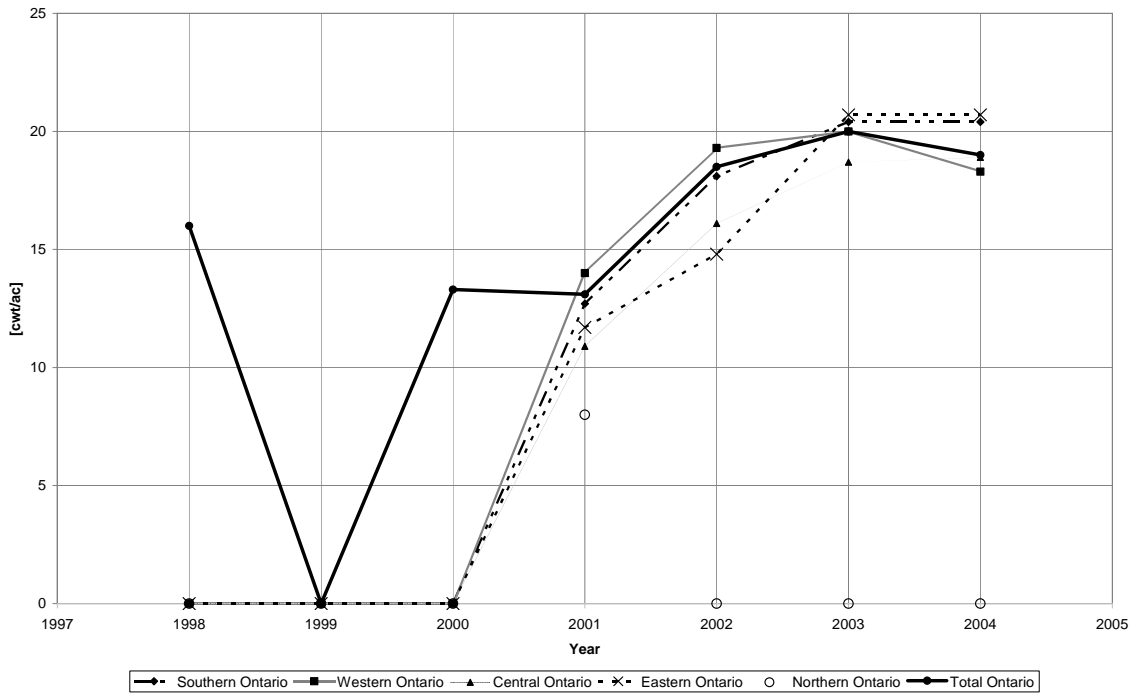
Southern Ontario			Western Ontario			Central Ontario		
Year	Yield [cwt/ac]	%	Year	Yield [cwt/ac]	%	Year	Yield [cwt/ac]	%
2003	20.4	135.1%	2003	20	132.5%	2004	18.9	125.2%
2004	20.4	135.1%	2002	19.3	127.8%	2003	18.7	123.8%
2002	18.1	119.9%	2004	18.3	121.2%	2002	16.1	106.6%
2001	12.7	84.1%	2001	14	92.7%	2001	10.9	72.2%
1998	n/a	n/a	1998	n/a	n/a	1998	n/a	n/a
1999	n/a	n/a	1999	n/a	n/a	1999	n/a	n/a
2000	n/a	n/a	2000	n/a	n/a	2000	n/a	n/a

Eastern Ontario			Northern Ontario			All of Ontario		
Year	Yield [cwt/ac]	%	Year	Yield [cwt/ac]	%	Year	Yield [cwt/ac]	%
2003	20.7	137.1%	2001	8	53.0%	2003	20	132.5%
2004	20.7	137.1%	1998	n/a	n/a	2004	19	125.8%
2002	14.8	98.0%	1999	n/a	n/a	2002	18.5	122.5%
2001	11.7	77.5%	2000	n/a	n/a	1998	16	106.0%
1998	n/a	n/a	2002	n/a	n/a	2000	13.3	88.1%
1999	n/a	n/a	2003	n/a	n/a	2001	13.1	86.8%
2000	n/a	n/a	2004	n/a	n/a	**1999	17.4	n/a

**1999 yield was reported in [bu/ac]

Provincial yield average from 1981-2003 for dry white bean was calculated to be 15 [cwt/ac]

White Bean Census Agricultural Regional Yields 1998-2004



Data was unavailable from 1998-2000 for most regions while the data available for Northern Ontario was only for 2002. From this limited data set, yield in 2001 was the lowest yield year for all regions in Ontario with Northern Ontario being the lowest at 53% of the provincial average. Since 2002 was the only data point available for Northern Ontario, no analysis can be done. Excluding Northern Ontario, the greatest decrease was in Central Ontario with 72% of the provincial average. Yield in 2001 for other regions ranged from 70% to 93% of the provincial average.

Census Agricultural Regions (CARs) % of Average 1998-2004

Winter Wheat [bu/ac]

CARs percentage of provincial average 1998-2004

Southern Ontario			Western Ontario			Central Ontario		
Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%
1998	62.8	103.8%	1998	66.4	109.7%	1998	51.7	85.4%
1999	73.1	120.8%	1999	77.3	127.7%	1999	59.8	98.8%
2000	76	125.6%	2000	76.5	126.4%	2000	57.2	94.5%
2001	74.9	123.8%	2001	69.9	115.5%	2001	61.5	101.6%
2002	72.4	119.6%	2002	73.8	121.9%	2002	65.5	108.2%
2003	78.5	129.7%	2003	76.5	126.4%	2003	63.4	104.8%
2004	73.6	121.6%	2004	73.1	120.8%	2004	66.7	110.2%

Eastern Ontario			Northern Ontario			All of Ontario		
Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%
1998	40.7	67.3%	1998	36.3	60.0%	1998	62.7	103.6%
1999	50.9	84.1%	1999	40	66.1%	1999	73.2	121.0%
2000	44.9	74.2%	2000	29	47.9%	2000	74.3	122.8%
2001	60	99.1%	2001	57.1	94.3%	2001	71.9	118.8%
2002	58.1	96.0%	2002	30	49.6%	2002	72.1	119.1%
2003	53.8	88.9%	2003	52.6	86.9%	2003	76.3	126.1%
2004	50	82.6%	2004	58.8	97.2%	2004	72.5	119.8%

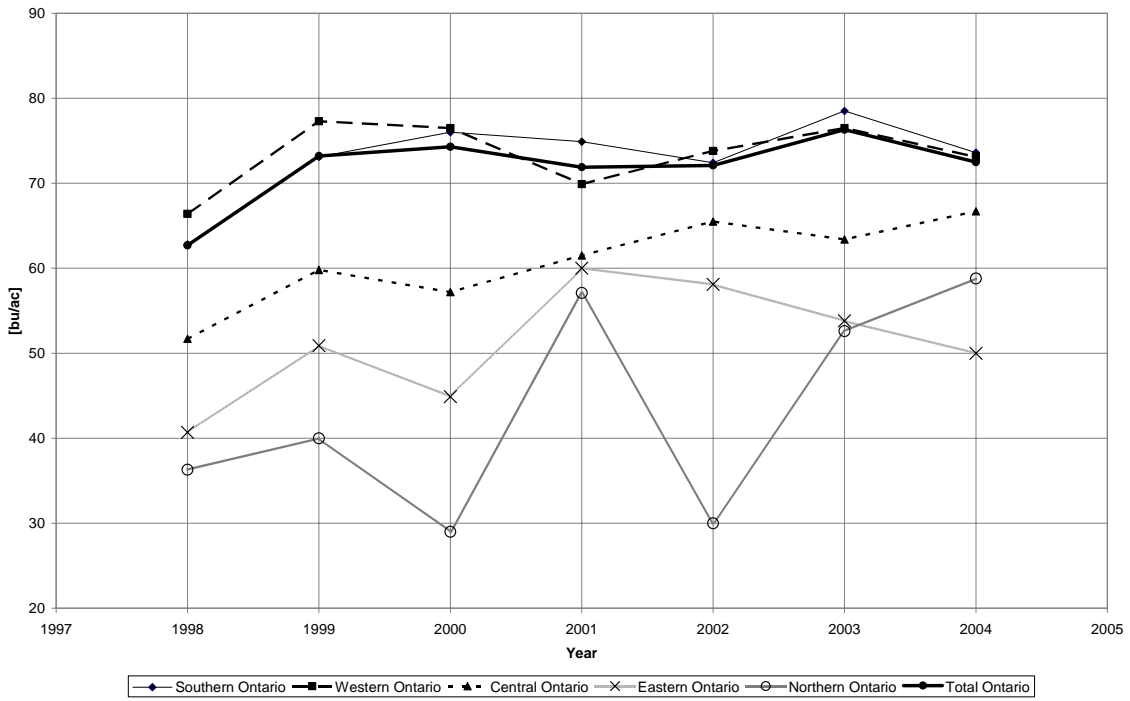
Rankings of CARs percentage of provincial average 1998-2004 (largest to smallest)

Southern Ontario			Western Ontario			Central Ontario		
Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%
2003	78.5	129.7%	1999	77.3	127.7%	2004	66.7	110.2%
2000	76	125.6%	2000	76.5	126.4%	2002	65.5	108.2%
2001	74.9	123.8%	2003	76.5	126.4%	2003	63.4	104.8%
2004	73.6	121.6%	2002	73.8	121.9%	2001	61.5	101.6%
1999	73.1	120.8%	2004	73.1	120.8%	1999	59.8	98.8%
2002	72.4	119.6%	2001	69.9	115.5%	2000	57.2	94.5%
1998	62.8	103.8%	1998	66.4	109.7%	1998	51.7	85.4%

Eastern Ontario			Northern Ontario			All of Ontario		
Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%	Year	Yield [bu/ac]	%
2001	60	99.1%	2004	58.8	97.2%	2003	76.3	126.1%
2002	58.1	96.0%	2001	57.1	94.3%	2000	74.3	122.8%
2003	53.8	88.9%	2003	52.6	86.9%	1999	73.2	121.0%
1999	50.9	84.1%	1999	40	66.1%	2004	72.5	119.8%
2004	50	82.6%	1998	36.3	60.0%	2002	72.1	119.1%
2000	44.9	74.2%	2002	30	49.6%	2001	71.9	118.8%
1998	40.7	67.3%	2000	29	47.9%	1998	62.7	103.6%

Provincial yield average from 1981-2003 for winter wheat was calculated to be 61 [bu/ac]

Winter Wheat Census Agricultural Regional Yields 1998-2004



Yield in 2001 and 2002 were above average in most regions in Ontario. Yield in Ontario regions for 2001 ranged from 94% - 124% of the provincial average and yield for 2002 ranged from 50% - 122% of the provincial average.

SECTION 3: Census Division (County) Yield 1998-2004

Barley [bu/ac]

County	1998	1999	2000	2001	2002	2003	2004	Average	2001 % of 2000	2002 % of 2001
Brant	45	59	65	63	57	66	63	59.7	97%	90%
Chatham-Kent Division (formerly Kent)	39	N/A	74	70	54	50	N/A	54.3	95%	77%
Elgin	45	59	65	64	64	N/A	N/A	59.4	98%	100%
Essex	60	N/A	60	67	N/A	N/A	N/A	62.3	112%	N/A
Haldimand-Norfolk Regional Municipality	37	56	53	45	51	59	53	50.6	85%	113%
Hamilton (formerly Hamilton Wentworth)	40	50	58	71	53	57	46	53.6	122%	75%
Lambton	47	69	78	69	53	79	48	63.3	88%	77%
<i>Middlesex*</i>	49	72	73	79	61	78	52	66.3	108%	77%
Niagara Regional Municipality	55	39	60	46	51	51	51	50.4	77%	111%
Oxford	53	72	63	82	60	65	59	64.9	130%	73%
SOUTHERN ONTARIO	47.1	61.5	63.3	66.9	56	65.4	51.9	58.9	106%	84%
Bruce	59	70	67	74	58	64	64	65.1	110%	78%
Dufferin	55	62.7	62	58	60	68	68	62.0	94%	103%
Grey	51	55	71	61	55	64	59	59.4	86%	90%
Halton Regional Municipality	48	73	55	70	61	64	61	61.7	127%	87%
Huron	65	72	73	77	61	72	70	70.0	105%	79%
Peel Regional Municipality	59	61	55	61	51	60	62	58.4	111%	84%
Perth	62	74	55	72	62	69	68	66.0	131%	86%
Simcoe	58	61	58	71	53	56	66	60.4	122%	75%
<i>Waterloo Regional Municipality*</i>	53	61	88	83	61	80	70	70.9	94%	73%
Wellington	61	72	76	72	61	67	66	67.9	95%	85%
WESTERN ONTARIO	57.7	64.9	67.2	69.5	58	66	65.7	64.1	103%	83%
<i>Durham Regional Municipality*</i>	58	70	57	70	55	58	61	61.3	123%	79%
Haliburton	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A	N/A
Hastings	48	55	61	66	51	51	60	56.0	108%	77%
Kawartha Lakes Division (formerly Victoria)	51	71	40	65	52	71	62	58.9	163%	80%
Muskoka District Municipality	51	72	60	50	N/A	52	51	56.0	83%	N/A
Northumberland County	45	63	42	56	52	61	61	54.3	133%	93%
Parry Sound District	49	62	63	100	N/A	N/A	N/A	68.5	159%	N/A
Peterborough	51	66	51	61	53	60	52	56.3	120%	87%

ONTARIO FIELD CROPS

County	1998	1999	2000	2001	2002	2003	2004	Average	2001 % of 2000	2002 % of 2001
Prince Edward Division	46	50	65	56	50	51	60	54.0	86%	89%
York Region Municipality	51	65	66	69	52	50	71	60.6	105%	75%
CENTRAL ONTARIO	51.8	65.6	58	64.6	52.7	59.5	61.1	59.0	111%	82%
Frontenac	51	50	55	68	49	79	54	58.0	124%	72%
Lanark	62	61	57.5	62	59	57	51	58.5	108%	95%
Leeds and Grenville	49	60	58	46	52	50	56	53.0	79%	113%
Lennox and Addington	66	72	60	58	49	55	63	60.4	97%	84%
Ottawa Division (formerly Ottawa-Carleton)	55	57	45	59	55	67	63	57.3	131%	93%
<i>Prescott and Russell*</i>	51	67	55	70	57	61	71	61.7	127%	81%
Renfrew	53	54	59	66	58	51	66	58.1	112%	88%
Stormont, Dundas and Glengarry	50	62	55	72	60	54	70	60.4	131%	83%
EASTERN ONTARIO	53.1	61.6	57.5	64.1	56.4	56.8	63.9	59.1	111%	88%
Algoma District	55	36.5	58	55	51	74	57	55.2	95%	93%
Cochrane District	65	39.8	60	47	50	53	55	52.8	78%	106%
Kenora District	54	40.5	45	43	N/A	54	53	48.3	96%	N/A
Manitoulin District	61	68	55	45	57	57	68	58.7	82%	127%
Nipissing District	56	54	59	70	57	51	68	59.3	119%	81%
Rainy River District	56	40.7	55	24	N/A	64	54	49.0	44%	N/A
Sudbury District	55	59	49	48	52	53	53	52.7	98%	108%
Sudbury Regional Municipality	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Thunder Bay District*</i>	66	66	53	80	57	79	74	67.9	151%	71%
Timiskaming District	67	61	72	55	58	67	63	63.3	76%	105%
NORTHERN ONTARIO	64.1	58.6	60.2	55.2	57.1	65.6	64	60.7	92%	103%
ALL OF ONTARIO	56.5	63.5	61.4	66.1	56.9	63.5	63.8	61.7	108%	86%

Provincial yield average from 1981-2003 for barley was calculated to be 59 [bu/ac]

**Largest Census Division producer in Census Agricultural Region by average 1998-2004*

Equal or more than 15% decrease from previous year	The 3 most affected Census Divisions
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Barley production was most affected in 2002. The majority of the reported data for 2002 experienced yield decreases of at least 15% from the previous year. The worst hit Census Division in 2002 was Thunder Bay District of northern Ontario, which experienced a drop in yield of -29% from 2001 (80 bu/ac – 57 bu/ac). Also in 2002, Frontenac of eastern Ontario experienced a drop of -28% from 2001 (68 bu/ac – 49 bu/ac) and Waterloo Regional Municipality of western Ontario had yield decreases of -27% from the previous year (83 bu/ac – 61 bu/ac).

Census Division (County) Yield 1998-2004

Fodder Corn [tons/ac]

County	1998	1999	2000	2001	2002	2003	2004	Average	2001 % of 2000	2002 % of 2001
Brant	13.7	12	11.8	7	15	15	14	12.6	59%	214%
Chatham-Kent Division (formerly Kent)	17.2	17.4	10.2	10	13	16	16	14.3	98%	130%
Elgin	11.9	16	12.2	9	11	17	19	13.7	74%	122%
Essex	10.9	11	11	9	12	18	18	12.8	82%	133%
Haldimand-Norfolk Regional Municipality	16.1	17.5	12	9	12	12	14	13.2	75%	133%
Hamilton (formerly Hamilton Wentworth)	12.5	14	13	18	14	13	18	14.6	138%	78%
Lambton	13.8	15.5	14.5	11	12	17	20	14.8	76%	109%
Middlesex*	13.8	17.4	15.8	14	14	16	15	15.1	89%	100%
Niagara Regional Municipality	11.8	12	13	8	14	14	15	12.5	62%	175%
Oxford	16.9	16.4	13.1	13	15	18	15	15.3	99%	115%
SOUTHERN ONTARIO	14.6	16.1	13.6	11.5	13.6	16	15.8	14.5	85%	118%
Bruce	11.1	15	12.8	14	11	14	14	13.1	109%	79%
Dufferin	12.6	17	11.5	15	11	18	16	14.4	130%	73%
Grey	11	10	9.4	11	10	10	15	10.9	117%	91%
Halton Regional Municipality *	15	17	10	13	13	17	23	15.4	130%	100%
Huron	13.3	17	13	9	11	13	20	13.8	69%	122%
Peel Regional Municipality	13.5	15	12.5	14	11	11	22	14.1	112%	79%
Perth	12.2	17	10.9	15	13	16	16	14.3	138%	87%
Simcoe	15.2	16.5	11	9	12	12	18	13.4	82%	133%
Waterloo Regional Municipality	11.8	14.5	12.7	12	14	17	14	13.7	94%	117%
Wellington	12.7	15.7	11.8	10	12	13	15	12.9	85%	120%
WESTERN ONTARIO	12.4	15.4	11.8	11.7	11.9	14.1	15.7	13.3	99%	102%
Durham Regional Municipality*	15.3	16	14.1	8	14	13	15	13.6	57%	175%
Haliburton	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hastings	9	15	9.5	8	13	12	15	11.6	84%	163%
Kawartha Lakes Division (formerly Victoria)	9	14	11.2	8	11	17	16	12.3	71%	138%
Muskoka District Municipality	N/A	N/A	10	N/A	N/A	N/A	N/A	10.0	N/A	N/A
Northumberland County	11.2	14.5	12	9	11	11	16	12.1	75%	122%
Parry Sound District	N/A	N/A	N/A	N/A	N/A	N/A	10	10.0	N/A	N/A
Peterborough	11	14.5	13.8	7	11	13	13	11.9	51%	157%

ONTARIO FIELD CROPS

County	1998	1999	2000	2001	2002	2003	2004	Average	2001 % of 2000	2002 % of 2001
Prince Edward Division	10	14	13.9	6	12	15	15	12.3	43%	200%
York Region Municipality	12.5	14	9.8	8	11	14	18	12.5	82%	138%
CENTRAL ONTARIO	11.2	14.7	11.9	7.8	12.1	13.4	15.4	12.4	66%	155%
Frontenac	12	15	9	9	13	14	20	13.1	100%	144%
Lanark	14.4	13.5	13	7	11	16	19	13.4	54%	157%
Leeds and Grenville	10	13.5	9	8	11	11	12	10.6	89%	138%
Lennox and Addington	10.2	14	13.5	6	12	17	13	12.2	44%	200%
Ottawa Division (formerly Ottawa-Carleton)	16	16	13	9	12	13	17	13.7	69%	133%
Prescott and Russell	14.6	15.5	12.7	9	13	16	18	14.1	71%	144%
Renfrew	14	14.5	11.8	9	11	12	12	12.0	76%	122%
<i>Stormont, Dundas and Glengarry*</i>	14.6	15	12.8	12	13	15	19	14.5	94%	108%
EASTERN ONTARIO	13.8	14.8	12	9.3	12.1	14	16.6	13.2	78%	130%
Algoma District	N/A	N/A	N/A	N/A	10	N/A	12	11.0	N/A	N/A
Cochrane District	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Kenora District	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Manitoulin District	N/A	N/A	N/A	N/A	N/A	12	14	13.0	N/A	N/A
Nipissing District	N/A	N/A	N/A	N/A	13	14	17	14.7	N/A	N/A
Rainy River District	N/A	N/A	N/A	N/A	N/A	12	14	13.0	N/A	N/A
Sudbury District	N/A	N/A	N/A	N/A	15	11	N/A	13.0	N/A	N/A
Sudbury Regional Municipality	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Thunder Bay District	N/A	N/A	N/A	N/A	13	12	12	12.3	N/A	N/A
Timiskaming District	N/A	N/A	N/A	N/A	11	10	15	12.0	N/A	N/A
NORTHERN ONTARIO	11.8	12.8	12	8.9	11.3	11	13.9	11.7	74%	127%
ALL OF ONTARIO	13	15.3	12.3	10.6	12.3	14.4	15.9	13.4	86%	116%

Provincial yield average from 1981-2003 for fodder corn was calculated to be 13 [tons/ac]

*Largest Census Division producer in Census Agricultural Region by average 1998-2004

Equal or more than 15% decrease from previous year

The 3 most affected Census Divisions

Fodder corn production was most affected in 2001. The majority of the reported data for 2001 experienced yield decreases of at least 15% from the previous year and some Census Divisions saw decreases of over 50% from the previous year. The worst hit Census Division in 2001 was Prince Edward Division of central Ontario, which experienced a drop in yield of -57% from 2000 (13.9 tons/ac – 6 tons/ac). Also in 2001, Lennox and Addington of eastern Ontario experienced a drop of -56% from 2000 (13.5 tons/ac – 6 tons/ac) and Peterborough of central Ontario had yield decreases of -49% from the previous year (13.8 tons/ac – 7 tons/ac).

Census Division (County) Yield 1998-2004

Grain Corn [bu/ac]

County	1998	1999	2000	2001	2002	2003	2004	Average	2001 % of 2000	2002 % of 2001
Brant	104	105	114	86	118	127	120	110.6	75%	137%
<i>Chatham-Kent Division (formerly Kent)*</i>	155	131	125	108	110	140	152	131.6	86%	102%
Elgin	146	127	119	103	90	130	138	121.9	87%	87%
Essex	139	117	135	98	80	145	138	121.7	73%	82%
Haldimand-Norfolk Regional Municipality	128	109	105	79	111	123	123	111.1	75%	141%
Hamilton (formerly Hamilton Wentworth)	104	111	99	104	111	127	115	110.1	105%	107%
Lambton	152	128	119	120	88	129	144	125.7	101%	73%
Middlesex	143	142	117	104	98	129	136	124.1	89%	94%
Niagara Regional Municipality	106	107	93	77	98	130	112	103.3	83%	127%
Oxford	125	137	105	114	136	129	130	125.1	109%	119%
SOUTHERN ONTARIO	137.3	127.8	116	104.1	104	132.1	135.8	122.4	90%	100%
Bruce	107	131	101	105	98	115	117	110.6	104%	93%
Dufferin	129	129	70	94	108	113	109	107.4	134%	115%
Grey	100	119	85	104	99	118	111	105.1	122%	95%
Halton Regional Municipality	102	108	80	73	92	115	112	97.4	91%	126%
<i>Huron</i>	118	134	109	121	138	127	134	125.9	111%	114%
Peel Regional Municipality	112	118	85	88	92	107	118	102.9	104%	105%
<i>Perth*</i>	128	143	105	125	139	127	127	127.7	119%	111%
Simcoe	125	122	96	95	113	118	120	112.7	99%	119%
Waterloo Regional Municipality	105	119	105	99	118	118	115	111.3	94%	119%
Wellington	113	127	94	98	123	117	115	112.4	104%	126%
WESTERN ONTARIO	117	130.7	101.6	110.4	125	122	124.9	118.8	109%	113%
<i>Durham Regional Municipality*</i>	123	123	100	90	123	117	120	113.7	90%	137%
Haliburton	N/A	N/A	N/A	90	N/A	N/A	N/A	90.0	N/A	N/A
Hastings	115	111	98	67	116	115	116	105.4	68%	173%
Kawartha Lakes Division (formerly Victoria)	117	122	88	67	118	110	113	105.0	76%	176%
Muskoka District Municipality	N/A	N/A	N/A	90	N/A	N/A	N/A	90.0	N/A	N/A
<i>Northumberland County</i>	113	117	95	86	131	109	125	110.9	91%	152%
Parry Sound District	N/A	N/A	N/A	90	N/A	N/A	99	94.5	N/A	N/A
Peterborough	110	109	92	60	115	109	104	99.9	65%	192%
Prince Edward Division	108	109	100	39	99	108	113	96.6	39%	254%
York Region Municipality	121	119	84	98	109	106	112	107.0	117%	111%
CENTRAL ONTARIO	117.6	118	94.9	79.9	120	111.7	116.8	108.4	84%	150%

ONTARIO FIELD CROPS

County	1998	1999	2000	2001	2002	2003	2004	Average	2001 % of 2000	2002 % of 2001
Frontenac	120	113	100	119	118	122	123	116.4	119%	99%
Lanark	125	112	68	66	106	126	123	103.7	97%	161%
Leeds and Grenville	125	116	81	75	94	126	123	105.7	93%	125%
Lennox and Addington	122	117	106	53	86	122	120	103.7	50%	162%
Ottawa Division (formerly Ottawa-Carleton)	131	134	85	112	117	134	138	121.6	132%	104%
Prescott and Russell	136	135	77	106	118	129	141	120.3	138%	111%
Renfrew	106	119	85	82	88	121	115	102.3	96%	107%
<i>Stormont, Dundas and Glengarry*</i>	137	136	85	98	119	136	145	122.3	115%	121%
EASTERN ONTARIO	132.7	131.6	83.3	97.6	114	131.8	139.5	118.6	117%	117%
Algoma District	N/A	N/A	N/A	N/A	N/A	109	0	54.5	N/A	N/A
Cochrane District	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Kenora District	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Manitoulin District	N/A	N/A	N/A	N/A	N/A	103	96	99.5	N/A	N/A
Nipissing District	N/A	N/A	N/A	N/A	103	123	94	106.7	N/A	N/A
Rainy River District	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sudbury District	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sudbury Regional Municipality	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Thunder Bay District	N/A	N/A	N/A	N/A	N/A	105	97	101.0	N/A	N/A
Timiskaming District	N/A	N/A	N/A	N/A	104	114	87	101.7	N/A	N/A
NORTHERN ONTARIO	88.2	111	59	65.7	102	113.9	89.4	89.9	111%	155%
ALL OF ONTARIO	128.8	128.3	105.1	103.1	113	127	131.3	119.5	98%	110%

Provincial yield average from 1981-2003 for grain corn was calculated to be 108 [bu/ac]

**Largest Census Division producer in Census Agricultural Region by average 1998-2004*

Equal or more than 15% decrease from previous year

The 3 most affected Census Divisions

Grain corn production was most affected in 2001. The worst hit Census Division in 2001 was Prince Edward Division of central Ontario, which experienced a drop in yield of -61% from 2000 (100 bu/ac – 39 bu/ac). Also in 2001, Lennox and Addington of eastern Ontario experienced a drop of -50% from 2000 (106 bu/ac – 53 bu/ac) and Peterborough of central Ontario had yield decreases of -35% from the previous year (92 bu/ac – 60 bu/ac).

Census Division (County) Yield 1998-2004

Hay [tons/ac]

County	1998	1999	2000	2001	2002	2003	2004	Average	2001 % of 2000	2002 % of 2001
Brant	2.6	2.6	2.9	2.4	2.4	2.6	2.4	2.6	83%	100%
Chatham-Kent Division (formerly Kent)	2.2	2.5	2.5	2.4	2.4	2.6	3.4	2.6	96%	100%
Elgin*	2.6	2.5	2.8	2.7	2.1	2.7	3.3	2.7	96%	78%
Essex	2.4	2.6	2.7	2.2	2.4	2.7	2.3	2.5	81%	109%
Haldimand-Norfolk Regional Municipality	1.8	2.4	2.4	2	2.1	2.5	2.3	2.2	83%	105%
Hamilton (formerly Hamilton Wentworth)	2.3	2.4	2.6	2.3	2.2	2.4	2.8	2.4	88%	96%
Lambton*	2.6	2.6	2.9	2.5	2.1	2.7	3.3	2.7	86%	84%
Middlesex*	2.5	2.5	2.9	2.5	2.4	2.7	3.1	2.7	86%	96%
Niagara Regional Municipality	2.3	2.4	2.4	2.2	2.1	2.5	2.1	2.3	92%	95%
Oxford*	2.6	2.5	2.8	3.1	2.4	2.6	3.1	2.7	111%	77%
SOUTHERN ONTARIO	2.3	2.5	2.7	2.5	2.2	2.6	2.8	2.5	93%	88%
Bruce	2	2.5	2.6	2.5	2.1	2.6	2.6	2.4	96%	84%
Dufferin	2	2.1	2.3	2.1	2.1	2.3	2.5	2.2	91%	100%
Grey	1.7	2.3	2.3	1.9	2	2.3	2.1	2.1	83%	105%
Halton Regional Municipality	1.7	2.4	2.5	1.8	2	2.4	2.3	2.2	72%	111%
Huron	2.4	2.5	2.8	2.9	2.2	2.9	2.8	2.6	104%	76%
Peel Regional Municipality	2.2	2.4	2.7	1.8	2.1	2.3	2.6	2.3	67%	117%
Perth*	2.7	2.6	3	2.5	2.2	2.6	3.2	2.7	83%	88%
Simcoe	2.5	2.3	2.4	2.3	2.3	2.3	2.3	2.3	96%	100%
Waterloo Regional Municipality	2.5	2.6	2.8	2.4	2.1	2.6	2.9	2.6	86%	88%
Wellington	2.5	2.5	2.7	2.6	2	2.4	2.9	2.5	96%	77%
WESTERN ONTARIO	2.2	2.4	2.6	2.3	2.1	2.5	2.6	2.4	88%	91%
Durham Regional Municipality*	2.4	2.5	2.6	2.4	2.1	2.2	2.8	2.4	92%	88%
Haliburton	2.2	2.2	2.1	2	2	2	1.7	2.0	95%	100%
Hastings	1.9	2.1	2.3	1.2	2.1	2.2	2	2.0	52%	175%
Kawartha Lakes Division (formerly Victoria)	1.7	2.2	2.2	1.8	2	2.1	2.2	2.0	82%	111%
Muskoka District Municipality	1.6	2.3	2.2	1.6	2	2.2	1.5	1.9	73%	125%
Northumberland County	2.1	2.2	2.3	2.1	2.1	2.4	2.7	2.3	91%	100%
Parry Sound District	1.6	2.2	2.1	1.5	2.2	2.1	1.6	1.9	71%	147%
Peterborough	2.5	2.3	2.3	1.7	2	2.2	2.2	2.2	74%	118%

ONTARIO FIELD CROPS

County	1998	1999	2000	2001	2002	2003	2004	Average	2001 % of 2000	2002 % of 2001
Prince Edward Division	1.6	2.2	2.1	1.2	2	2.3	2	1.9	57%	167%
York Region Municipality	2	2.1	2.4	2.1	2.2	2.2	2.8	2.3	88%	105%
CENTRAL ONTARIO	2	2.2	2.3	1.8	2.1	2.2	2.3	2.1	78%	117%
Frontenac	1.8	2.2	2.1	1.7	2.4	2.6	1.9	2.1	81%	141%
Lanark	1.8	2.2	2.2	1.9	2	2.6	2	2.1	86%	105%
Leeds and Grenville	1.8	2.4	2.3	1.6	2.4	2.6	2.2	2.2	70%	150%
Lennox and Addington	2.3	2.2	2.1	1.4	2.2	2.2	1.9	2.0	67%	157%
Ottawa Division (formerly Ottawa-Carleton)	1.9	2.2	2.4	2.2	2.4	2.3	1.9	2.2	92%	109%
<i>Prescott and Russell*</i>	2.1	2.2	2.3	2.1	2.4	2.6	2.2	2.3	91%	114%
Renfrew	1.6	2.2	2.2	1.9	2	2.2	2	2.0	86%	105%
<i>Stormont, Dundas and Glengarry*</i>	2.5	2.5	2.3	2.1	2.5	2.3	2.2	2.3	91%	119%
EASTERN ONTARIO	2	2.3	2.3	1.9	2.3	2.4	2.1	2.2	83%	121%
Algoma District	1.6	2.2	2.2	1.9	2.7	2.5	1.8	2.1	86%	142%
Cochrane District	1.5	1.8	1.8	1.5	2.9	2.4	1.8	2.0	83%	193%
Kenora District	1.5	2.1	2	1.2	2.8	2.6	1.8	2.0	60%	233%
Manitoulin District	1.7	2.2	2.2	1.9	2.6	2.4	1.9	2.1	86%	137%
Nipissing District	1.7	1.9	1.8	2.1	2.8	2.7	1.8	2.1	117%	133%
Rainy River District	1.9	2	2.2	2	2.2	2.6	2	2.1	91%	110%
Sudbury District	1.6	2.2	2	1.5	2.7	2.7	2	2.1	75%	180%
Sudbury Regional Municipality	N/A	N/A	N/A	N/A	2.9	2.4	1.9	N/A	N/A	N/A
Thunder Bay District	1.7	2.3	2.6	1.9	2.8	2.4	1.9	2.2	73%	147%
<i>Timiskaming District*</i>	1.8	2.4	2.3	1.8	2.7	2.6	2.1	2.2	78%	150%
NORTHERN ONTARIO	1.7	2.2	2.2	1.8	2.6	2.6	1.9	2.1	82%	144%
ALL OF ONTARIO	2.1	2.3	2.4	2.1	2.2	2.4	2.4	2.3	88%	105%

Provincial yield average from 1981-2003 for hay was calculated to be 2.8 [tons/ac]

**Largest Census Division producer in Census Agricultural Region by average 1998-2004*

Equal or more than 15% decrease from previous year	The 3 most affected Census Divisions
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Hay production was most affected in 2001. The worst hit Census Division in 2001 was Hastings central Ontario, which experienced a drop in yield of -48% from 2000 (2.3 tons/ac – 1.2 tons/ac). Also in 2001, Prince Edward Division of central Ontario experienced a drop of -43% from 2000 (2.1 tons/ac – 1.2 tons/ac) and Kenora District of northern Ontario had yield decreases of -40% from the previous year (2 tons/ac – 1.2 tons/ac).

Census Division (County) Yield 1998-2004

Mixed Grain [bu/ac]

County	1998	1999	2000	2001	2002	2003	2004	Average	2001 % of 2000	2002 % of 2001
Brant	51	35	37	50	60	80	60	53.3	135%	120%
Chatham-Kent Division (formerly Kent)	44	N/A	63	N/A	N/A	N/A	N/A	53.5	N/A	N/A
Elgin	55	64	70	50	60	50	65	59.1	71%	120%
Essex	45	N/A	N/A	60	N/A	N/A	N/A	52.5	N/A	N/A
Haldimand-Norfolk Regional Municipality	45	61	60	60	60	48	60	56.3	100%	100%
Hamilton (formerly Hamilton Wentworth)	50	61.5	64	63	67	58	78	63.1	98%	106%
Lambton	45	74	78	60	67	72	60	65.1	77%	112%
Middlesex*	48	78.5	82	88	67	78	74	73.6	107%	76%
Niagara Regional Municipality	45	42.5	41	40	63	48	55	47.8	98%	158%
Oxford	60	74.5	75	73	67	76	70	70.8	97%	92%
SOUTHERN ONTARIO	53	65.9	67.9	68.8	65.7	71.9	68	65.9	101%	95%
Bruce	58	73.5	73	72	63	56	72	66.8	99%	88%
Dufferin	58	72.5	73	74	70	55	63	66.5	101%	95%
Grey	63	61.5	64	69	55	71	65	64.1	108%	80%
Halton Regional Municipality	59	59	55	72	62	75	62	63.4	131%	86%
Huron*	64	74.5	75	81	68	71	72	72.2	108%	84%
Peel Regional Municipality	61	74.5	74	70	73	61	59	67.5	95%	104%
Perth	61	68.5	69	77	69	75	70	69.9	112%	90%
Simcoe	59	57.5	57	65	61	51	58	58.4	114%	94%
Waterloo Regional Municipality*	65	74.5	76	68	70	80	72	72.2	89%	103%
Wellington	65	74.5	74	69	64	74	72	70.4	93%	93%
WESTERN ONTARIO	62	69.5	69.9	71.5	63.8	69.2	68.9	67.8	102%	89%
Durham Regional Municipality*	61	64.5	64	69	59	63	68	64.1	108%	86%
Haliburton	40	41	N/A	N/A	N/A	N/A	N/A	40.5	N/A	N/A
Hastings	61	57.5	58	59	57	56	59	58.2	102%	97%
Kawartha Lakes Division (formerly Victoria)	56	57.5	55	26	56	65	70	55.1	47%	215%
Muskoka District Municipality	40	70	70	20	N/A	79	58	56.2	29%	N/A
Northumberland County	59	59	61	60	56	61	69	60.7	98%	93%
Parry Sound District	43	40	N/A	60	N/A	63	N/A	51.5	N/A	N/A
Peterborough	58	59	57	59	53	62	60	58.3	104%	90%
Prince Edward Division	55	45	50	54	56	51	57	52.6	108%	104%
York Region Municipality	62	51	50	63	59	68	61	59.1	126%	94%
CENTRAL ONTARIO	58.9	57.5	57.9	56.7	57	61.6	64.1	59.1	98%	101%

ONTARIO FIELD CROPS

County	1998	1999	2000	2001	2002	2003	2004	Average	2001 % of 2000	2002 % of 2001
Frontenac	58	45	48	50	43	58	64	52.3	104%	86%
Lanark	53	40	46	64	49	50	63	52.1	139%	77%
Leeds and Grenville	58	64.5	62	50	50	66	71	60.2	81%	100%
Lennox and Addington	51	39	38	44	59	48	59	48.3	116%	134%
Ottawa Division (formerly Ottawa-Carleton)	64	58	63	70	59	78	72	66.3	111%	84%
Prescott and Russell	61	56.5	55	58	52	72	62	59.5	105%	90%
Renfrew	62	50.5	55	73	52	65	68	60.8	133%	71%
<i>Stormont, Dundas and Glengarry*</i>	60	65	67	100	62	56	73	69.0	149%	62%
EASTERN ONTARIO	59.6	53	55.7	66.1	54.6	63.8	66.7	59.9	119%	83%
Algoma District	64	43.1	50	40	54	51	59	51.6	80%	135%
Cochrane District	N/A	40	38	50	N/A	78	71	55.4	132%	N/A
Kenora District	N/A	N/A	N/A	50	N/A	N/A	N/A	50.0	N/A	N/A
Manitoulin District	60	57	60	33	62	67	55	56.3	55%	188%
<i>Nipissing District*</i>	53	69	71	71	58	51	73	63.7	100%	82%
Rainy River District	62	41	48	40	54	52	57	50.6	83%	135%
Sudbury District	53	38	47	70	N/A	64	56	54.7	149%	N/A
Sudbury Regional Municipality	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Thunder Bay District	N/A	64	65	50	N/A	N/A	N/A	59.7	77%	N/A
Timiskaming District	64	59	62	53	61	52	58	58.4	85%	115%
NORTHERN ONTARIO	60.3	53.3	58.6	50	57.8	56.4	60	56.6	85%	116%
ALL OF ONTARIO	60.7	65.1	66.3	67.6	62.1	66.9	67.5	65.2	102%	92%

Provincial yield average from 1981-2003 for mixed grain was calculated to be 63 [bu/ac]

**Largest Census Division producer in Census Agricultural Region by average 1998-2004*

Equal or more than 15% decrease from previous year	The 3 most affected Census Divisions
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Mixed grain production in 2001 and 2002 experienced similar decreases in yield with respect to the method of identifying low yields as decreases of at least 15% of the previous year. However, in 2001, there were three Census Divisions that experienced decreases of over 40% from the previous year. The worst hit Census Division in 2001 was Muskoka District Municipality of central Ontario, which experienced a drop in yield of -71% from 2000 (70 bu/ac – 20 bu/ac). Also in 2001, Kawartha Lakes Division (formerly Victoria) of central Ontario experienced a drop of -53% from 2000 (55 bu/ac – 26 bu/ac) and Manitoulin of northern Ontario had yield decreases of -45% from the previous year (60 bu/ac – 33 bu/ac).

Census Division (County) Yield 1998-2004

Oat [bu/ac]

County	1998	1999	2000	2001	2002	2003	2004	Average	2001 % of 2000	2002 % of 2001
Brant	52	70.5	65	95	66	67	65	68.6	146%	69%
Chatham-Kent Division (formerly Kent)	56	69	74	90	80	86	76	75.9	122%	89%
Elgin	42	80	65	90	74	63	72	69.4	138%	82%
Essex	48	59	60	51	86	62	59	60.7	85%	169%
Haldimand-Norfolk Regional Municipality	44	57	53	84	65	61	60	60.6	158%	77%
Hamilton (formerly Hamilton Wentworth)	53	88	58	86	65	75	61	69.4	148%	76%
Lambton	41	74	78	71	63	86	75	69.7	91%	89%
Middlesex	54	71.5	73	85	62	73	74	70.4	116%	73%
Niagara Regional Municipality	41	70	60	91	64	61	60	63.9	152%	70%
<i>Oxford*</i>	66	83	63	88	76	78	79	76.1	140%	86%
SOUTHERN ONTARIO	48	70	63.3	83.8	66.9	73.2	69.9	67.9	132%	80%
Bruce	67	75.2	67	93	76	64	75	73.9	139%	82%
Dufferin	65	57	62	65	69	82	74	67.7	105%	106%
Grey	69	76	71	90	65	75	66	73.1	127%	72%
Halton Regional Municipality	45	64.2	55	0	70	76	82	56.0	0%	N/A
Huron	50	74	73	83	75	84	62	71.6	114%	90%
Peel Regional Municipality	71	56	55	71	80	72	61	66.6	129%	113%
Perth	70	70	55	78	74	74	84	72.1	142%	95%
Simcoe	68	55	58	70	69	79	72	67.3	121%	99%
<i>Waterloo Regional Municipality*</i>	72	87	88	104	72	89	85	85.3	118%	69%
Wellington	63	88	76	94	90	62	70	77.6	124%	96%
WESTERN ONTARIO	64.7	70.3	67.2	80.8	71.9	77.3	72.3	72.1	120%	89%
<i>Durham Regional Municipality*</i>	76	75.5	57	84	65	71	82	72.9	147%	77%
Haliburton	40	N/A	N/A	N/A	N/A	N/A	N/A	40.0	N/A	N/A
Hastings	49	58	61	71	67	57	63	60.9	116%	94%
Kawartha Lakes Division (formerly Victoria)	70	48	40	71	66	62	74	61.6	178%	93%
Muskoka District Municipality	47	58.3	63	75	N/A	55	65	60.6	119%	N/A
Northumberland County	66	67.2	60	63	61	67	70	64.9	105%	97%
Parry Sound District	54	48	43	63	64	59	N/A	55.2	147%	102%
Peterborough	45	72.1	62	66	67	72	73	65.3	106%	102%
Prince Edward Division	71	77.5	63	72	74	65	72	70.6	114%	103%
York Region Municipality	56	55	60	70	76	67	84	66.9	117%	109%
CENTRAL ONTARIO	63.3	64.9	56.7	69.8	65.9	66.4	73.1	65.7	123%	94%

County	1998	1999	2000	2001	2002	2003	2004	Average	2001 % of 2000	2002 % of 2001
Frontenac	44	60	60	85	65	56	59	61.3	142%	76%
Lanark	57	40	42	70	62	61	59	55.9	167%	89%
Leeds and Grenville	64	70	63	67	53	57	61	62.1	106%	79%
Lennox and Addington	58	53	51	69	66	85	56	62.6	135%	96%
<i>Ottawa Division (formerly Ottawa-Carleton)*</i>	52	60	65	88	72	58	71	66.6	135%	82%
Prescott and Russell	51	67	66	58	55	67	65	61.3	88%	95%
Renfrew	56	55	58	44	64	62	61	57.1	76%	145%
Stormont, Dundas and Glengarry	46	64	55	40	60	71	69	57.9	73%	150%
EASTERN ONTARIO	52	59.3	57.5	58	62.2	63.4	64.8	59.6	101%	107%
Algoma District	60	51	58	48	58	59	64	56.9	83%	121%
Cochrane District	65	55	60	83	67	66	55	64.4	138%	81%
Kenora District	80	45	45	16	N/A	53	N/A	47.8	36%	N/A
Manitoulin District	69	47.8	55	18	68	53	59	52.8	33%	378%
Nipissing District	73	60	59	75	59	84	50	65.7	127%	79%
Rainy River District	71	48	55	16	47	78	66	54.4	29%	294%
Sudbury District	60	45	49	50	59	N/A	0	43.8	102%	118%
Sudbury Regional Municipality	N/A	N/A	N/A	N/A	74	54	N/A	64.0	N/A	N/A
Thunder Bay District	53	65	53	46	N/A	62	76	59.2	87%	N/A
<i>Timiskaming District*</i>	90	63	72	45	70	86	71	71.0	63%	156%
NORTHERN ONTARIO	79.6	56.2	60.2	43.4	63.7	81.5	67	64.5	72%	147%
ALL OF ONTARIO	61	65.3	61.4	68.9	67	72.7	70	66.6	112%	97%

Provincial yield average from 1981-2003 for oat was calculated to be 61 [bu/ac]

Halton 2001 was reported as 0 on OMAFRA web site

**Largest Census Division producer in Census Agricultural Region by average 1998-2004*

Equal or more than 15% decrease from previous year

The 3 most affected Census Divisions

Oat production in 2001 and 2002 experienced similar decreases in yield with respect to the method of identifying low yields as decreases of at least 15% of the previous year. However, in 2002, there were three Census Divisions in northern Ontario that experienced decreases of over 60% from the previous year. The worst hit Census Division in 2002 was Rainy River District, which experienced a drop in yield of -71% from 2001 (55 bu/ac – 16 bu/ac). Also in 2001, Manitoulin District experienced a drop of -67% from 2000 (55 bu/ac – 18 bu/ac) and Kenora District had yield decreases of -64% from the previous year (45 bu/ac – 16 bu/ac).

Census Division (County) Yield 1998-2004

Soybean [bu/ac]

County	1998	1999	2000	2001	2002	2003	2004	Average	2001 % of 2000	2002 % of 2001
Brant	29	35.5	36	19	34	31	36	31.5	53%	179%
Chatham-Kent Division (formerly Kent)*	48	44	44	23	37	33	44	39.0	52%	161%
Elgin	43	41.5	39	18	32	29	41	34.8	46%	178%
Essex	45	37.5	38	24	31	32	41	35.5	63%	129%
Haldimand-Norfolk Regional Municipality	35	32.5	33	18	31	28	35	30.4	55%	172%
Hamilton (formerly Hamilton Wentworth)	33	36.5	36	21	34	27	32	31.4	58%	162%
Lambton	45	42.5	39	22	31	26	43	35.5	56%	141%
Middlesex	44	43.5	39	20	30	28	41	35.1	51%	150%
Niagara Regional Municipality	29	37	36	21	30	28	38	31.3	58%	143%
Oxford	39	41.5	39	19	40	35	42	36.5	49%	211%
SOUTHERN ONTARIO	42.5	40.6	38.9	20.9	32.7	29.6	40.8	35.1	54%	156%
Bruce	32	39.5	40	22	30	32	39	33.5	55%	136%
Dufferin	36	34	32	22	32	32	30	31.1	69%	145%
Grey	29	39	35	19	30	31	32	30.7	54%	158%
Halton Regional Municipality	31	36	32	16	29	24	33	28.7	50%	181%
Huron	37	43	41	23	41	37	44	38.0	56%	178%
Peel Regional Municipality	38	39	30	19	30	22	37	30.7	63%	158%
<i>Perth*</i>	41	45	40	25	42	43	44	40.0	63%	168%
Simcoe	41	40	34	20	34	32	34	33.6	59%	170%
Waterloo Regional Municipality	32	39.5	38	17	39	35	39	34.2	45%	229%
Wellington	36	41.5	35	21	39	37	37	35.2	60%	186%
WESTERN ONTARIO	36.9	41.6	38	21.8	37.3	35.6	39.5	35.8	57%	171%
Durham Regional Municipality	42	36	36	17	35	29	34	32.7	47%	206%
Haliburton	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Hastings*</i>	40	35	38	16	37	29	38	33.3	42%	231%
Kawartha Lakes Division (formerly Victoria)	38	36	31	15	35	29	35	31.3	48%	233%
Muskoka District Municipality	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Northumberland County	38	35	33	18	39	28	38	32.7	55%	217%
Parry Sound District	N/A	N/A	N/A	N/A	N/A	N/A	30	30.0	N/A	N/A
Peterborough	38	32.5	30	16	33	26	35	30.1	53%	206%

ONTARIO FIELD CROPS

County	1998	1999	2000	2001	2002	2003	2004	Average	2001 % of 2000	2002 % of 2001
Prince Edward Division	39	38	38	10	34	27	37	31.9	26%	340%
York Region Municipality	40	33	29	16	34	26	32	30.0	55%	213%
CENTRAL ONTARIO	39.8	35	33.3	16	35.7	28	35.4	31.9	48%	223%
Frontenac	40	39	30	26	28	30	32	32.1	87%	108%
Lanark	41	32	32	21	32	35	33	32.3	66%	152%
Leeds and Grenville	41	36.9	36	17	30	37	32	32.8	47%	176%
Lennox and Addington	38	34	34	18	30	27	34	30.7	53%	167%
Ottawa Division (formerly Ottawa-Carleton)	45	41	38	17	34	43	36	36.3	45%	200%
Prescott and Russell	46	44	36	24	32	43	38	37.6	67%	133%
Renfrew	35	33.8	36	27	28	44	33	33.8	75%	104%
<i>Stormont, Dundas and Glengarry*</i>	47	43	36	28	33	43	36	38.0	78%	118%
EASTERN ONTARIO	44.5	41.1	36	24.3	32.4	41.4	35.9	36.5	68%	133%
Algoma District	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cochrane District	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Kenora District	N/A	N/A	N/A	N/A	N/A	N/A	30	30.0	N/A	N/A
Manitoulin District	N/A	N/A	24	N/A	N/A	N/A	31	27.5	N/A	N/A
Nipissing District	N/A	N/A	30	N/A	29	28	27	28.5	N/A	N/A
Rainy River District	N/A	N/A	N/A	N/A	N/A	30	26	28.0	N/A	N/A
Sudbury District	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sudbury Regional Municipality	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Thunder Bay District	N/A	N/A	N/A	N/A	N/A	32	30	31.0	N/A	N/A
Timiskaming District	N/A	N/A	25	N/A	30	34	29	29.5	N/A	N/A
NORTHERN ONTARIO	26.7	31.7	26	18.1	29	32.1	28.4	27.4	70%	160%
ALL OF ONTARIO	41	40.5	38	21.1	33.9	31.9	39.6	35.1	56%	161%

Provincial yield average from 1981-2003 for soybean was calculated to be 36 [bu/ac]

**Largest Census Division producer in Census Agricultural Region by average 1998-2004*

Equal or more than 15% decrease from previous year	The 3 most affected Census Divisions
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All Census Divisions in 2001 for soybean productions experienced yields decreases of at least 15% of the previous year and none in 2002 where production rebounded. The three largest yield decreases for soybean in 2001 were all over a 50% decrease of the previous year. The worst hit Census Division in 2001 was Prince Edward Division of central Ontario, which experienced a drop in yield of -74% from 2000 (38 bu/ac – 10 bu/ac). Also in 2001, Hastings of central Ontario experienced a drop of -58% from 2000 (38

bu/ac – 16 bu/ac) and Ottawa Division (formerly Ottawa-Carleton) of eastern Ontario had yield decreases of -55% from the previous year (38 bu/ac – 17 bu/ac).

Census Division (County) Yield 2001-2004* Spring Wheat [bu/ac]

<i>County</i>	2001	2002	2003	2004	Average	2001 % of 2000	2002 % of 2001
Brant	71	49	45	53	54.5	N/A	69%
Chatham-Kent Division (formerly Kent)	79	53	51	54	59.3	N/A	67%
Elgin	73	53	N/A	70	65.3	N/A	73%
Essex*	84	52	50	70	64.0	N/A	62%
Haldimand-Norfolk Regional Municipality	60	46	48	47	50.3	N/A	77%
Hamilton (formerly Hamilton Wentworth)	86	52	47	51	59.0	N/A	60%
Lambton	73	54	44	62	58.3	N/A	74%
Middlesex	76	54	52	70	63.0	N/A	71%
Niagara Regional Municipality	69	47	44	50	52.5	N/A	68%
Oxford	81	53	42	47	55.8	N/A	65%
SOUTHERN ONTARIO	74.9	51.6	47.1	60.5	58.5	N/A	69%
Bruce	68	52	69	46	58.8	N/A	76%
Dufferin	68	51	51	51	55.3	N/A	75%
Grey	75	44	46	41	51.5	N/A	59%
Halton Regional Municipality	71	45	N/A	33	49.7	N/A	63%
Huron	75	53	50	55	58.3	N/A	71%
Peel Regional Municipality	59	51	51	39	50.0	N/A	86%
Perth*	75	53	55	54	59.3	N/A	71%
Simcoe	59	50	49	49	51.8	N/A	85%
Waterloo Regional Municipality	67	53	51	50	55.3	N/A	79%
Wellington	65	54	49	49	54.3	N/A	83%
WESTERN ONTARIO	69.9	51.1	53.1	49.3	55.9	N/A	73%
Durham Regional Municipality	62	50	51	39	50.5	N/A	81%
Haliburton	N/A	N/A	N/A	0	0.0	N/A	N/A
Hastings	N/A	45	44	48	45.7	N/A	N/A
<i>Kawartha Lakes Division (formerly Victoria)*</i>	71	50	48	42	52.8	N/A	70%
Muskoka District Municipality	N/A	N/A	N/A	0	0.0	N/A	N/A
Northumberland County	59	50	42	33	46.0	N/A	85%
Parry Sound District	N/A	59	38	15	37.3	N/A	N/A
Peterborough	52	49	43	55	49.8	N/A	94%
Prince Edward Division	61	49	N/A	0	36.7	N/A	80%
York Region Municipality	61	45	47	30	45.8	N/A	74%
CENTRAL ONTARIO	61.5	48.9	47	39.3	49.2	N/A	80%
Frontenac	60	49	53	46	52.0	N/A	82%
Lanark	60	47	51	48	51.5	N/A	78%

County	2001	2002	2003	2004	Average	2001 % of 2000	2002 % of 2001
Leeds and Grenville	40	47	50	50	46.8	N/A	118%
Lennox and Addington	59	45	48	43	48.8	N/A	76%
<i>Ottawa Division (formerly Ottawa-Carleton)*</i>	64	48	54	52	54.5	N/A	75%
Prescott and Russell	N/A	43	52	56	50.3	N/A	N/A
Renfrew	70	41	53	42	51.5	N/A	59%
<i>Stormont, Dundas and Glengarry*</i>	53	55	52	58	54.5	N/A	104%
EASTERN ONTARIO	60	47.9	52.1	52.8	53.2	N/A	80%
Algoma District	N/A	54	45	47	48.7	N/A	N/A
Cochrane District	N/A	52	53	0	35.0	N/A	N/A
Kenora District	N/A	46	N/A	0	23.0	N/A	N/A
Manitoulin District	N/A	53	57	58	56.0	N/A	N/A
Nipissing District	N/A	53	54	51	52.7	N/A	N/A
Rainy River District	N/A	51	52	39	47.3	N/A	N/A
Sudbury District	N/A	51	N/A	59	55.0	N/A	N/A
Sudbury Regional Municipality	N/A	54	N/A	0	27.0	N/A	N/A
Thunder Bay District	N/A	53	55	50	52.7	N/A	N/A
Timiskaming District	N/A	54	51	54	53.0	N/A	N/A
NORTHERN ONTARIO	57.1	53.7	51.5	53.5	54.0	N/A	94%
ALL OF ONTARIO	71.9	50.6	52.2	50.8	56.4	N/A	70%

Provincial yield average from 1981-2003 for spring wheat was calculated to be 44 [bu/ac]

**Largest Census Division producer in Census Agricultural Region by average 2001-2004*

Equal or more than 15% decrease from previous year

The 3 most affected Census Divisions

Spring wheat production was most affected in 2002. The majority of the reported data for 2002 experienced yield decreases of at least 15% from the previous year. However, data for 2000 were unavailable therefore the percentage change from the previous year analysis was not applicable to 2001. The worst hit Census Divisions in 2002 were Grey of western Ontario, which experienced a drop in yield of -41% from 2001 (75 bu/ac – 44 bu/ac), and Renfrew of eastern Ontario, which experienced a drop of -41% from 2001 (70 bu/ac – 41 bu/ac). Also in 2002, Hamilton (formerly Hamilton Wentworth) of southern Ontario had yield decreases of -40% from the previous year (86 bu/ac – 52 bu/ac).

Census Division (County) Yield 1998-2004 *Tobacco [lb/ac]*

Counties & Districts	1998	1999	2000	2001	2002	2003	Average	2001 % of 2000	2002 % of 2001
Brant County	2,325	2,325	1,900	2,225	2,450	2,625	2,308	117%	110%
Bruce County	n/a	n/a	n/a	2,000	2,800	2,475	2,425	N/A	140%
Durham Regional Municipality	n/a	n/a	n/a	2,000	n/a	2,775	2,388	N/A	N/A
Elgin County	2,375	2,375	1,900	1,925	2,425	2,625	2,271	101%	126%
Essex County	2,225	2,200	1,900	2,000	n/a	n/a	2,081	105%	N/A
Chatham-Kent Division	n/a	n/a	n/a	400	2575	2575	1,850	N/A	644%
Lambton County	2,350	2,225	1,675	1,400	n/a	2,625	2,055	84%	N/A
Middlesex County	2,250	n/a	1,875	2,000	2,400	2,625	2,230	107%	120%
<i>Haldimand-Norfolk Regional Municipality*</i>	2,300	2,450	1,950	2,100	2,450	2,625	2,313	108%	117%
Northumberland County	n/a	n/a	n/a	2,000	n/a	n/a	2,000	N/A	N/A
Oxford County	2,200	2,300	1,975	2,000	2,425	2,625	2,254	101%	121%
Simcoe County	n/a	n/a	n/a	2,000	n/a	2,775	2,388	N/A	N/A
CENTRAL ONTARIO	2,275	2,250	1,850	n/a	n/a	n/a	2,125	N/A	N/A
SOUTHERN ONTARIO	n/a	n/a	n/a	n/a	n/a	n/a	n/a	N/A	N/A
Other	2,250	2,250	1,500	n/a	2,450	2,450	2,180	N/A	N/A
ALL OF ONTARIO	2,300	2,400	1,925	2,100	2,450	2,625	2,300	109%	117%

Provincial yield average from 1990-2003 for tobacco was calculated to be 2,294 [lb/ac]

**Largest Census Division producer in Census Agricultural Region by average 2001-2003*

Equal or more than 15% decrease from previous year

The 3 most affected Census Divisions

There were no Census Divisions for tobacco that experienced yield decreases of at least 15% from the previous year for both 2001 and 2002.

Census Division (County) Yield 1998-2004

White Beans [cwt/ac]

County	1998	1999**	2000	2001	2002	2003	2004	Average	2001 % of 2000	2002 % of 2001
Brant	N/A	N/A	N/A	13	15	N/A	N/A	14.0	N/A	115%
Chatham-Kent Division (formerly Kent)	N/A	20	14	13	20	21	20	17.6	93%	154%
Elgin	N/A	N/A	N/A	13	18	20	55	26.5	N/A	138%
Essex	N/A	N/A	N/A	11	17	19	19	16.5	N/A	155%
Haldimand-Norfolk Regional Municipality	N/A	N/A	N/A	11	15	N/A	N/A	13.0	N/A	136%
Hamilton (formerly Hamilton Wentworth)	N/A	N/A	N/A	11	15	N/A	N/A	13.0	N/A	136%
<i>Lambton*</i>	14.6	21	14	14	18	18	21	16.6	100%	129%
Middlesex	16.8	17	13	13	18	21	21	17.1	100%	138%
Niagara Regional Municipality	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Oxford	N/A	15.8	13	12	18	21	19	16.6	92%	150%
SOUTHERN ONTARIO	N/A	N/A	N/A	12.7	18.1	20.4	20.4	17.9	N/A	143%
Bruce	N/A	15	13	13	18	19	20	16.6	100%	138%
Dufferin	N/A	N/A	N/A	13	16	16	11	14.0	N/A	123%
Grey	N/A	N/A	N/A	13	16	14	15	14.5	N/A	123%
Halton Regional Municipality	N/A	N/A	N/A	13	15	16	15	14.8	N/A	115%
Huron	15.7	17.3	13	15	20	20	18	17.0	115%	133%
Peel Regional Municipality	N/A	N/A	N/A	12	16	14	12	13.5	N/A	133%
<i>Perth*</i>	15.4	20.4	14	15	20	21	19	17.4	107%	133%
Simcoe	15.5	15	13	13	16	19	18	15.8	100%	123%
Waterloo Regional Municipality	N/A	16.5	13	11	15	18	14	14.2	85%	136%
Wellington	N/A	14	12	11	17	15	16	14.2	92%	155%
WESTERN ONTARIO	N/A	N/A	N/A	14	19.3	20	18.3	17.9	N/A	138%
Durham Regional Municipality	N/A	15.5	13	13	17	20	19	16.4	100%	131%
Haliburton	N/A	N/A	N/A	11	14	N/A	N/A	12.5	N/A	127%
Hastings	N/A	N/A	N/A	10	15	N/A	N/A	12.5	N/A	150%
Kawartha Lakes Division (formerly Victoria)	N/A	N/A	N/A	10	14	19	23	16.5	N/A	140%
Muskoka District Municipality	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Northumberland County	N/A	16	12	11	17	18	17	15.0	92%	155%
Parry Sound District	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Peterborough	N/A	N/A	N/A	7	15	14	N/A	12.0	N/A	214%
Prince Edward Division	N/A	N/A	N/A	8	14	16	18	14.0	N/A	175%
York Region Municipality	N/A	N/A	N/A	13	17	17	12	14.8	N/A	131%
CENTRAL ONTARIO	N/A	N/A	N/A	10.9	16.1	18.7	18.9	16.2	N/A	148%
Frontenac	N/A	N/A	N/A	11	15	N/A	N/A	13.0	N/A	136%
Lanark	N/A	N/A	N/A	11	15	N/A	N/A	13.0	N/A	136%

ONTARIO FIELD CROPS

County	1998	1999**	2000	2001	2002	2003	2004	Average	2001 % of 2000	2002 % of 2001
Leeds and Grenville	N/A	N/A	N/A	11	15	N/A	N/A	13.0	N/A	136%
Lennox and Addington	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ottawa Division (formerly Ottawa-Carleton)	N/A	17	14	13	15	21	23	17.2	93%	115%
Prescott and Russell	N/A	N/A	N/A	10	N/A	24	17	17.0	N/A	N/A
Renfrew	N/A	N/A	N/A	11	14	N/A	N/A	12.5	N/A	127%
Stormont, Dundas and Glengarry	N/A	16	13	11	15	19	19	15.4	85%	136%
EASTERN ONTARIO	N/A	N/A	N/A	11.7	14.8	20.7	20.7	17.0	N/A	126%
Algoma District	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cochrane District	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Kenora District	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Manitoulin District	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nipissing District	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Rainy River District	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sudbury District	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sudbury Regional Municipality	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Thunder Bay District	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Timiskaming District	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NORTHTERN ONTARIO	N/A	N/A	N/A	8	N/A	N/A	N/A	8.0	N/A	N/A
Other	17.4	10.8	N/A	N/A	N/A	N/A	0	8.7	N/A	N/A
ALL OF ONTARIO	16	17.4	13.3	13.1	18.5	20	19	16.7	N/A	141%

Provincial yield average from 1981-2003 for dry white bean was calculated to be 15 [cwt/ac]

**1999 was reported in [bu/ac]

*Largest Census Division producer in Census Agricultural Region by average 1998-2004

Equal or more than 15% decrease from previous year

The 3 most affected Census Divisions

White beans were not affected as much as the other crops in 2001 and 2002. In fact, there were no Census Divisions that had at least a -15% decrease from the previous year for 2002. Additionally, only two Census Divisions in 2001 were identified and both only had decreases of -15% (13 cwt/ac – 11 cwt/ac). They were Waterloo Regional Municipality of western Ontario and Stormont, Dundas and Glengarry of eastern Ontario.

Census Division (County) Yield 1998-2004

Winter Wheat [bu/ac]

County	1998	1999	2000	2001	2002	2003	2004	Average	2001 % of 2000	2002 % of 2001
Brant	56	66	64	71	53	62	66	62.6	111%	75%
<i>Chatham-Kent Division (formerly Kent)*</i>	69	75.5	82	79	81	84	79	78.5	96%	103%
Elgin	56	72.5	71	73	76	78	75	71.6	103%	104%
Essex	60	71.5	83	84	74	79	68	74.2	101%	88%
Haldimand-Norfolk Regional Municipality	50	66.5	62	60	59	57	52	58.1	97%	98%
Hamilton (formerly Hamilton Wentworth)	52	71	64	86	62	58	56	64.1	134%	72%
Lambton	65	74	82	73	70	83	77	74.9	89%	96%
Middlesex	68	76	79	76	76	85	78	76.9	96%	100%
Niagara Regional Municipality	48	66	57	69	58	59	47	57.7	121%	84%
Oxford	67	79	74	81	79	83	79	77.4	109%	98%
SOUTHERN ONTARIO	62.8	73.1	76	74.9	72.4	78.5	73.6	73.0	99%	97%
Bruce	64	79	77	68	69	76	77	72.9	88%	101%
Dufferin	62	67	67	68	68	68	70	67.1	101%	100%
Grey	53	64.5	60	75	58	61	60	61.6	125%	77%
Halton Regional Municipality	56	61	58	71	54	53	60	59.0	122%	76%
Huron	70	85	85	75	78	81	76	78.6	88%	104%
Peel Regional Municipality	70	65	70	59	60	63	67	64.9	84%	102%
<i>Perth*</i>	71	84	81	75	82	83	76	78.9	93%	109%
Simcoe	63	64	68	59	69	70	71	66.3	87%	117%
Waterloo Regional Municipality	60	67	67	67	68	71	71	67.3	100%	101%
Wellington	62	75	70	65	72	77	69	70.0	93%	111%
WESTERN ONTARIO	66.4	77.3	76.5	69.9	73.8	76.5	73.1	73.4	91%	106%
<i>Durham Regional Municipality*</i>	58	73	68	62	66	69	69	66.4	91%	106%
Haliburton	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	N/A	N/A
Hastings	48	52	52	n/a	65	60	63	56.7	N/A	N/A
Kawartha Lakes Division (formerly Victoria)	50	60	56	71	65	64	63	61.3	127%	92%
Muskoka District Municipality	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	N/A	N/A
Northumberland County	55	58	55	59	67	63	66	60.4	107%	114%
Parry Sound District	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	N/A	N/A
Peterborough	48	50	48	52	65	57	49	52.7	108%	125%
Prince Edward Division	44	51	52	61	65	64	73	58.6	117%	107%
York Region Municipality	54	62	61	61	66	58	68	61.4	100%	108%
CENTRAL ONTARIO	51.7	59.8	57.2	61.5	65.5	63.4	66.7	60.8	108%	107%
Frontenac	n/a	n/a	n/a	60	51	46	49	51.5	N/A	85%
Lanark	n/a	n/a	n/a	60	55	45	46	51.5	N/A	92%
Leeds and Grenville	n/a	n/a	40	40	71	57	64	54.4	100%	178%
Lennox and Addington	n/a	n/a	41	59	54	57	49	52.0	144%	92%

County	1998	1999	2000	2001	2002	2003	2004	Average	2001 % of 2000	2002 % of 2001
Ottawa Division (formerly Ottawa-Carleton)	n/a	n/a	73	64	61	52	53	60.6	88%	95%
Prescott and Russell	n/a	n/a	n/a	n/a	66	61	51	59.3	N/A	N/A
Renfrew	n/a	n/a	53	70	63	63	62	62.2	132%	90%
Stormont, Dundas and Glengarry	n/a	n/a	n/a	53	62	54	47	54.0	N/A	117%
EASTERN ONTARIO	40.7	50.9	44.9	60	58.1	53.8	50	51.2	134%	97%
Algoma District	n/a	n/a	n/a	n/a	n/a	n/a	44	44.0	N/A	N/A
Cochrane District	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	N/A	N/A
Kenora District	n/a	n/a	n/a	n/a	n/a	40	n/a	40.0	N/A	N/A
Manitoulin District	n/a	n/a	n/a	n/a	n/a	58	48	53.0	N/A	N/A
Nipissing District	n/a	n/a	n/a	n/a	n/a	50	52	51.0	N/A	N/A
Rainy River District	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	N/A	N/A
Sudbury District	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	N/A	N/A
Sudbury Regional Municipality	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	N/A	N/A
Thunder Bay District	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	N/A	N/A
Timiskaming District	n/a	n/a	n/a	n/a	n/a	53	65	59.0	N/A	N/A
NORTHERN ONTARIO	36.3	40	29	57.1	30	52.6	58.8	43.4	197%	53%
ALL OF ONTARIO	62.7	73.2	74.3	71.9	72.1	76.3	72.5	71.9	97%	100%

Provincial yield average from 1981-2003 for winter wheat was calculated to be 61 [bu/ac]

**Largest Census Division producer in Census Agricultural Region by average 1998-2004*

Equal or more than 15% decrease from previous year	The 3 most affected Census Divisions
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Winter wheat production in 2001 and 2002 was not affected as much as the other crops. There were more Census Divisions in 2002 that experienced decreases of at least 15% of the previous year. The most affected Census Division in 2002 was Hamilton (formerly Hamilton Wentworth) of southern Ontario which experienced a drop of -28% from 2001 (86 bu/ac – 62 bu/ac). Also from southern Ontario, Brant had a decrease in yield by -25% from 2001 (71 bu/ac – 53 bu/ac). Finally, yields in 2002 for Halton Regional Municipality of western Ontario dropped -24% from the previous year (71 bu/ac – 54 bu/ac).

Conclusions

Section 1

Analysis in Section One consisted of provincial yield data for Ontario from 1979-2003 except for the indicated crops (*). Three different types of analytical indices were constructed to help determine if 2001 and 2002 experienced stress to crop production. Provincial trend line observations from 1981-2003, yield rankings and percentage change from previous year are the indices and below are the charts that summarize the findings.

By visual inspection, data points for 2001 and 2002 were identified as either Below, Above or Normal to the trend line for the time period of 1979-2003.

Provincial Trend line Analysis 1979-2003

Crop	2001	2002
Barley	Below	Above
Canola*	Above	Below
Fodder Corn	Below	Below
Grain Corn	Below	Below
Hay	Below	Below
Mixed Grain	Above	Below
Oat	Above	Above
Soybean	Below	Below
Spring Wheat	Above	Above
Tobacco*	Below	Above
White Beans	Below	Above
Winter Wheat	Above	Above

*Data available for Canola 1981-2003, Data available for Tobacco 1990-2003

Crops for 2001 and 2002 were identified as low yield years if either 2001 or 2002 ranked in the bottom five (19th to 23rd) of the long-term yield data for the period 1981-2003. Tobacco only had available data from 1990-2003 therefore the bottom five would be 10th to 14th. The following crops were identified to have low yield for 2001 and 2002:

Provincial Yield Rankings for 2001 and 2002

Crop	2001 ranking	2002 ranking
Fodder Corn	21 st	Not in the bottom 5 (13 th)
Hay	22 nd	21 st
Soybean	23 rd	Not in the bottom 5 (15 th)
Tobacco*	11 th (4 th last)	Not in the bottom 5 (5 th)

Data available for Tobacco 1990-2003

The final stress index for yield in Section One observes the change in yield as a percentage of the previous year. For example, 0% implies that there has not been a change in yield. A negative percentage implies that yield has decreased and a percentage without a sign in front of the value implies a positive change from the previous year.

Provincial Yield: Percentage Change from Previous Year for 2001 and 2002

Year	Barley	Canola	Fodder Corn	Grain Corn	Hay	Mixed Grain
2000	-9.4%	11.8%	-20.0%	-18.0%	4.3%	3.1%
2001	13.8%	2.6%	-8.3%	-1.9%	-12.5%	1.5%
2002	-13.6%	-15.4%	9.1%	9.7%	4.8%	-8.8%

Year	Oat	Soybean	Spring Wheat	Tobacco	White Bean	Winter Wheat
2000	-6.2%	-7.3%	2.2%	-19.8%	-23.5%	1.4%
2001	13.1%	-44.7%	15.2%	9.1%	0.0%	-2.7%
2002	-2.9%	61.9%	-3.8%	16.7%	46.2%	0.0%

Section 2

The following table identifies which crops had low 2001 and 2002 yield by Census Agricultural Regions (CARs). Crops for 2001 and 2002 were identified as low yield years if either 2001 or 2002 CAR ranked last or second last in terms of percentage of average among the regional data. The time period of regional data was limited to 1998-2004. This table identifies which CARs were impacted the most in 2001 and 2002 for each crop.

Lowest Crop Yields by CARs for 2001 and 2002

Crop	2001 - 2nd last	2001 - last	2002 - 2nd last	2002 - last	# of times 2001 and 2002 was ranked second last or last
Barley		N	W,C,E,N,A		5
Fodder Corn		S,W,C,E,N,A	S,A		6
Grain Corn	S,W,E,N	C,A		S	6
Hay	N	C,E,A		S,W	5
Mixed Grain		C,N	S,W,C,E,A		6
Oat		N			1
Soybean		S,W,C,E,N,A	E		6
Spring Wheat					0
White Bean					6
Winter Wheat	W,A	N	S,N		1

S-Southern Ontario, W-Western Ontario, C-Central Ontario, N-Northern Ontario, A-All of Ontario

The number of times regions in 2001 and 2002 were ranked last or second last excludes counts from 'All of Ontario'. This table is sensitive to missing data and regions with less than 3 years of available data were not taken into consideration.

Section 3

The following table identifies the top Census Agricultural Region and Census Division producers for each crop. Top producers are defined by yield averages from 1998-2004. To be a top CAR or top Census Division producer, the data set must be complete from 1998-2004. Any CAR or Census Division with incomplete were not considered.

Top CAR and Census Division Producers of each Crop

Crop	Top CAR	Top Census Division
Barley	Western Ontario	Waterloo Regional Municipality (West)
Canola	N/A	N/A
Fodder Corn	Southern Ontario	Halton Regional Municipality (West)
Grain Corn	Southern Ontario	Chatham-Kent Division (South)
Hay	Southern Ontario	Elgin, Lambton, Middlesex, Oxford (South) & Perth (West)
Mixed Grain	Western Ontario	Middlesex (South)
Oat	Western Ontario	Waterloo Regional Municipality (West)
Soybean	Eastern Ontario	Perth (West)
Spring Wheat	Southern Ontario	Essex (South)
Tobacco	N/A	Haldimand-Norfolk Regional Municipality (South)
White Bean	Southern and Western Ontario	Perth (West)
Winter Wheat	Western Ontario	Perth (West)

In addition to top producers, analysis from Section Three data also identified Census Divisions that were most affected in 2001 and 2002. Identification was based on the percentage change of the previous year. This method is similar to that in Section One but Section Three consists of Census Division data. The three largest decreases were identified for each crop. Additionally, decreases in yield that were less than 15% of the previous year were regarded as unsubstantial and were not included in the assessment. This is summarized in the table on the next page:

The Top Three Census Divisions with the Largest Decrease in Yield for each crop in 2001 and 2002 based on Percent Decrease of Previous Year

Crop	2001			2002		
	Census Division	CAR	Percent Decrease of Previous Year	Census Division	CAR	Percent Decrease of Previous Year
Barley	Timiskaming District	<i>North</i>	(-) 24%	Thunder Bay District	<i>North</i>	(-) 29%
	Niagara Regional Municipality	<i>South</i>	(-) 23%	Frontenac	<i>East</i>	(-) 28 %
	Cochrane District	<i>North</i>	(-) 22%	Waterloo Regional Municipality	<i>West</i>	(-) 27%
Fodder Corn	Prince Edward Division	<i>Central</i>	(-) 57%	Dufferin	<i>West</i>	(-) 27%
	Lennox and Addington	<i>East</i>	(-) 56%	Hamilton (formerly Hamilton Wentworth)	<i>South</i>	(-) 22%
	Peterborough	<i>Central</i>	(-) 49%	Bruce	<i>West</i>	(-) 21%
				Peel Regional Municipality	<i>West</i>	(-) 21%
Grain Corn	Prince Edward Division	<i>Central</i>	(-) 61%	Lambton	<i>South</i>	(-) 27%
	Lennox and Addington	<i>East</i>	(-) 50%			
	Peterborough	<i>Central</i>	(-) 40%			
Hay	Hastings	<i>Central</i>	(-) 48%	Oxford	<i>South</i>	(-) 23%
	Prince Edward Division	<i>Central</i>	(-) 43%	Wellington	<i>West</i>	(-) 23%
	Kenora District	<i>North</i>	(-) 40%	Elgin	<i>South</i>	(-) 22%
Mixed Grain	Muskoka District Municipality	<i>Central</i>	(-) 71%	Stormont, Dundas and Glengarry	<i>East</i>	(-) 38%
	Kawartha Lakes Division (formerly Victoria)	<i>Central</i>	(-) 53%	Renfrew	<i>East</i>	(-) 29%
	Manitoulin District	<i>North</i>	(-) 45%	Middlesex	<i>South</i>	(-) 24%
Oat	Rainy River District	<i>North</i>	(-) 71%	Brant	<i>South</i>	(-) 31%
	Manitoulin District	<i>North</i>	(-) 67%	Waterloo Regional Municipality	<i>West</i>	(-) 31%
	Kenora District	<i>North</i>	(-) 64%	Niagara Regional Municipality	<i>South</i>	(-) 30%
Soybean	Prince Edward Division	<i>Central</i>	(-) 74%	No Census Divisions had decreases of at least (-) 15 %		
	Hastings	<i>Central</i>	(-) 58%			
	Ottawa Division (formerly Ottawa-Carleton)	<i>East</i>	(-) 55%			
Spring Wheat	No Census Divisions had decreases of at least (-) 15 %			Grey	<i>West</i>	(-) 41%
				Renfrew	<i>East</i>	(-) 41%
				Hamilton (formerly Hamilton Wentworth)	<i>South</i>	(-) 40%
Tobacco	No Census Divisions had decreases of at least (-) 15 %			No Census Divisions had decreases of at least (-) 15 %		
White Beans	Waterloo Regional Municipality	<i>West</i>	(-) 15%	No Census Divisions had decreases of at least (-) 15 %		

	2001			2002		
	Stormont, Dundas and Glengarry	<i>East</i>	(-) 15%			
Winter Wheat	Peel Regional Municipality	<i>West</i>	(-) 16%	Hamilton (formerly Hamilton Wentworth)	<i>South</i>	(-) 28%
				Brant	<i>South</i>	(-) 25%
				Halton Regional Municipality	<i>West</i>	(-) 24%

The highlighted Census Divisions signify decreases in yield of at least -50% of the previous year. Based on the indicator of yield decreases of at least -15% of the previous year, there were 116 census divisions across Ontario with such occurrences in 2001 and 90 of such occurrences in 2002 when affected census divisions for each crop added together. However it can be seen that crops in 2001 suffered the greatest based on Census Divisions that experienced decreases in yield from the previous year of least 50%, with 21 of such occurrences. The crops that experienced these decreases were: soybeans, oats, mixed grain and fodder corn.

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Glossary

Ac – Acre

Lbs - pounds

OMAFRA - Ontario Ministry of Agriculture Food and Rural Affairs

CAR – Census Agricultural Region

CWT - hundredweight – weight, a unit of mass equal to 100 pounds or 45.3 kilograms (short hundredweight) or 112 pounds or 50.8 kg (long hundredweight). The *c* comes from the Roman numeral for one hundred (Wikipedia, 2005)