

RYE SECTOR

OVERVIEW OF THE RYE SECTOR IN MANITOBA



- Rye production in Canada has traditionally been centered in Western Canada, with Saskatchewan usually reporting the highest rye acreage followed by Alberta and Manitoba.
- Rye is not a major crop in Canada. This multiple use crop is used as a cereal grain, forage, and annual pasture, and because the land seeded for forage and pasture is often not reported, production statistics understate the actual area planted to rye.
- In 2011, Manitoba reported 376 fall rye farms and 18 spring rye farms compared to 593 and 46 respectively in 2006. This represents 15.4% of fall rye farms and 8.3% of spring rye farms in Canada and approximately 23 to 28% of Canada's total rye production.

Rye	Manitoba	Manitoba	Canada	Canada
	2011	2006	2011	2006
Fall Rye				
Number of farms	376	593	2,448	4,458
Acres	59,774	90,104	262,261	488,275
Hectares	24,190	36,464	106,133	197,598
Spring Rye				
Number of farms	18	46	215	482
Acres	2,101	5,730	23,864	43,460
Hectares	850	2,319	9,657	17,588

Source: Census of Agriculture 2011

- Rye is a hardy crop with good frost and drought resistance. Although it is versatile and adapts well to a variety of soil and moisture conditions, production and acreage statistics show that rye is not a major crop anywhere in Canada.
- Given low production volumes, elevator companies often find it difficult to ship rye as often not enough is available to fill a railcar.
- Fall-seeded rye provides cover for the ground from late fall to early spring, reducing erosion, and allows the crop to take full advantage of spring moisture and escape disease.

Processing Rye in Manitoba

- Rye has a variety of uses. It is a grain and forage crop.
- Rye has a characteristic flavor that people enjoy. It is dark in colour, relatively low level of gluten proteins and high levels of soluble fibre.
- Rye grain can be milled into flour and used in bread and bakery products. It is the key ingredient in traditional rye and pumpernickel breads. Rye flour is used alone to produce the “black” bread consumed extensively in eastern Europe and parts of Asia. “Light-rye” breads are made from rye and wheat flours mixed in varying proportions. Small quantities of rye are used in production of baked specialty products, such as flat breads and rye crisps.
- Rye grain can also be eaten whole, either as boiled rye berries, or by being rolled, similar to rolled oats.
- Substantial quantities of rye grain are used to make beer, rye whiskies and vodka.
- Other uses of rye include medicinal uses, animal bedding and fruit and vegetable mulch. Rye starch is frequently used in adhesives, matches and plastics. Small quantities of rye straw are used in the manufacture of strawboard and paper.
- In Canada rye is grown mostly for grain and used in livestock feeds with lesser amounts for distilling and food uses.
- Farmers in the United States grow rye for both grain and forage. In the US, rye for grain is used to make flour, animal feed and beer.
- The adaptability, versatility and quality of fall rye provides producer flexibility while maintaining a high quality forage program. Fall rye can provide early season grazing in May and June and in many areas fall rye is cut for emergency hay supplies.
- Rye is used as a forage in the form of green chop, pasture, haylage or hay. It can be used alone or mixed with clover or ryegrass.
- Rye grain is extensively utilized as livestock feed, although in small proportions in mixtures with other grains. The amount of rye grain that can be included in mixed animal feeds continues to increase with improvements in feed production technology and the use of various enzymes to improve palatability.
- Rye straw, which is fibrous and tough, is used extensively as livestock bedding.
- Despite its desirable attributes, rye is likely to remain a minor crop. Its utilization in food products, animal feed and fuel stock for ethanol production, is likely to remain limited until there is better identification of its quality characteristics along with appropriate breeding work and promotion of beneficial effects.

Trade

- The export trade provides a large share of the total market for Canada's rye crop.
- Canada is the world's largest exporter of rye yet, on average, Canada produces only about 2% of the world's rye.
- World rye production is concentrated in Northern Europe - the European Union and Russia account for about 75% of world rye production.
- Rye has traditionally been an important component of breads and feed grain in Germany, Poland and Russia where significant quantities of rye continue to be produced and consumed.
- European rye is used almost entirely by its domestic markets, with average disappearance of 35% food, 17% industrial (mainly ethanol production), 44% feed and 4% residual.
- The United States and Japan are Canada's largest export destinations for rye.
- While the US is a relatively minor player in world rye markets, it is also Canada's largest export market for rye.
- Although rye production and consumption of rye has decreased in both the US and Canada, the decline has been more significant in the US where the milling industry requires imports of rye.
- Rye is not widely traded as a commodity and offers limited potential for expanding export markets given that it is a relatively minor crop in most of the world, both in terms of production and consumption.
- About one third of the rye crop is sold in export markets where it is used mainly for milling. Supplies for this market are erratic because of variation in sprouting damage from year to year.
- The domestic feed market is considered to be a residual market for rye. After the main markets meet their requirements, the remaining rye moves into the feed market and is priced accordingly.
- In speculation of higher prices, farmers who produce rye are often willing to hold it in storage for considerable periods of time.
- Rye is anticipated to continue to be an important crop for farmers. The demand for rye is generally inelastic, given that it is often in tight supply and that there are few substitutes for rye products.

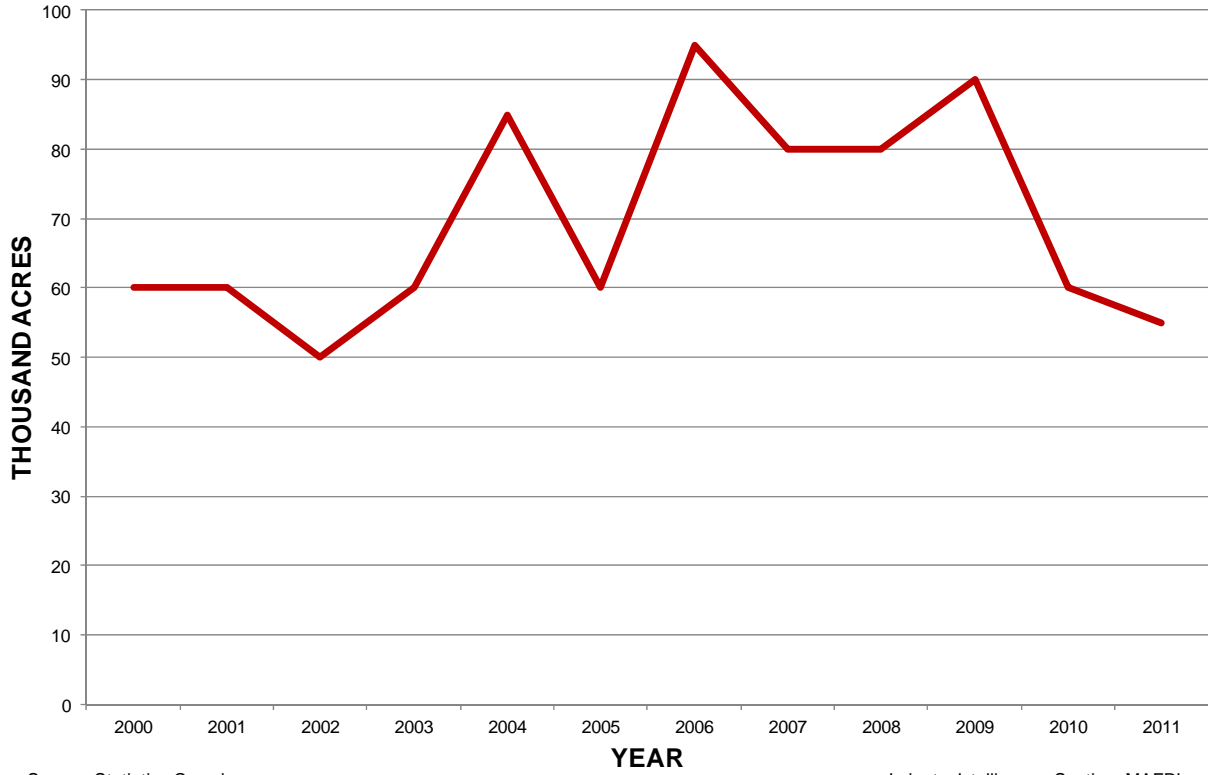
Rye Outlook for Canada 2012-2013

- For 2012-13, seeded area is forecast to increase by 18% due to good seeding conditions and a recovery in seedable area.
- Production is forecast to increase by 36% due to the increase in area.
- Total supply is forecast to increase by only 16% due to very low carry-in stocks.
- Total domestic use is forecast to increase by 13% but remain well below average due to the overall tight supply.
- Total exports are forecast to increase slightly from 2011-12 as stocks are rebuilt.
- Carry-out stocks are forecast to increase due to production recovery but remain very tight.
- Canadian rye prices are forecast to decrease from 2011-12 but the very tight supply situation will limit the losses when compared to other coarse grains.
- World rye carry-in stocks are about 45% lower than they were in 2011-12 due to the only modest increase in the northern hemisphere's production and an increase in total use. The IGC is forecasting a slight increase in world supply, despite higher production, due to very low carry-in stocks. Total world use is forecast to remain unchanged from 2011-12 but carry-out stocks are forecast to decrease due to lower supply.

Outlook for Rye	2010-2011	2011-2012p	2012-2013f
Area Seeded (kha)	130	122	144
Area Harvested (kha)	95	79	110
Yield (t/ha)	2.45	2.47	2.41
Production (kt)	232	195	265
Imports (kt)	0	1	1
Total Supply (kt)	372	247	286
Exports (kt)	193	154	164
Food & Industrial Use (kt)	42	39	40
Feed, Waste & Dockage (kt)	79	23	32
Total Domestic Use (kt)	129	73	82
Carry-out Stocks (kt)	51	20	40
Average Price (\$/t)	147	175-205	165-195

Source: Statistics Canada and Agriculture and Agri-Food Canada, June 2012

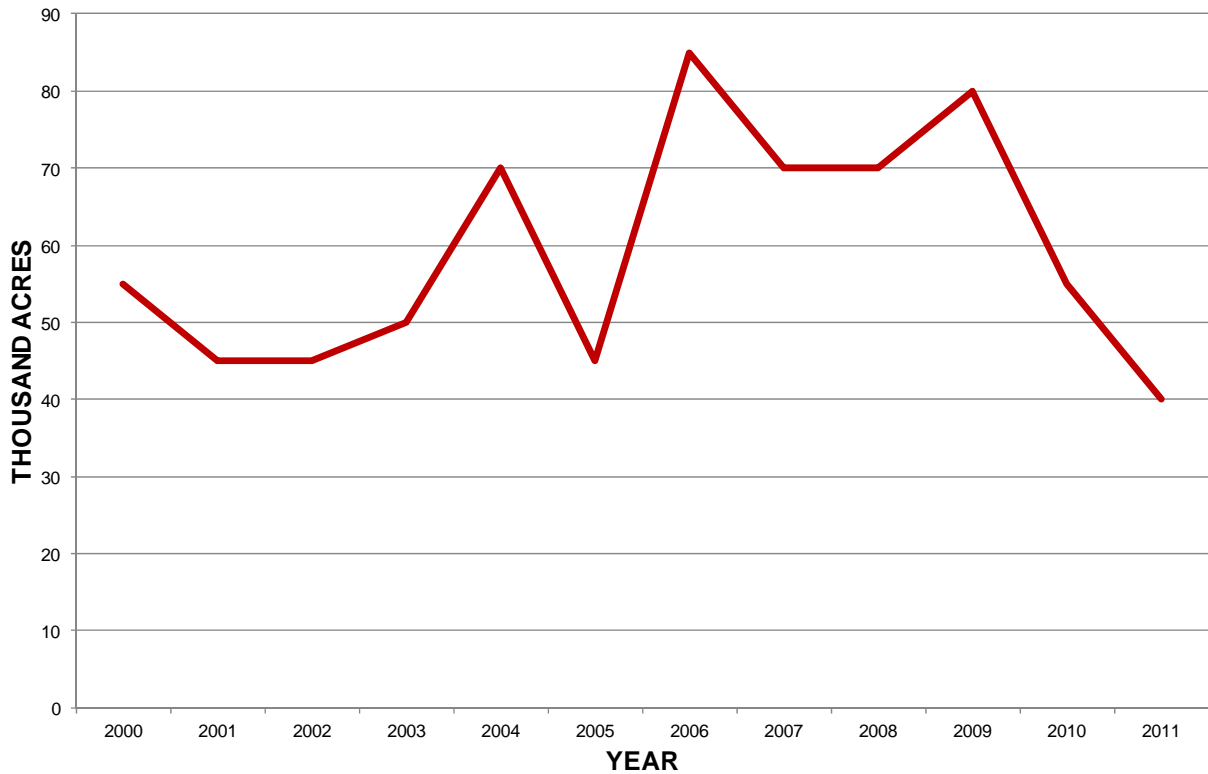
Rye - Seeded Acres in Manitoba 2000 - 2011



Source: Statistics Canada

Industry Intelligence Section, MAFRI

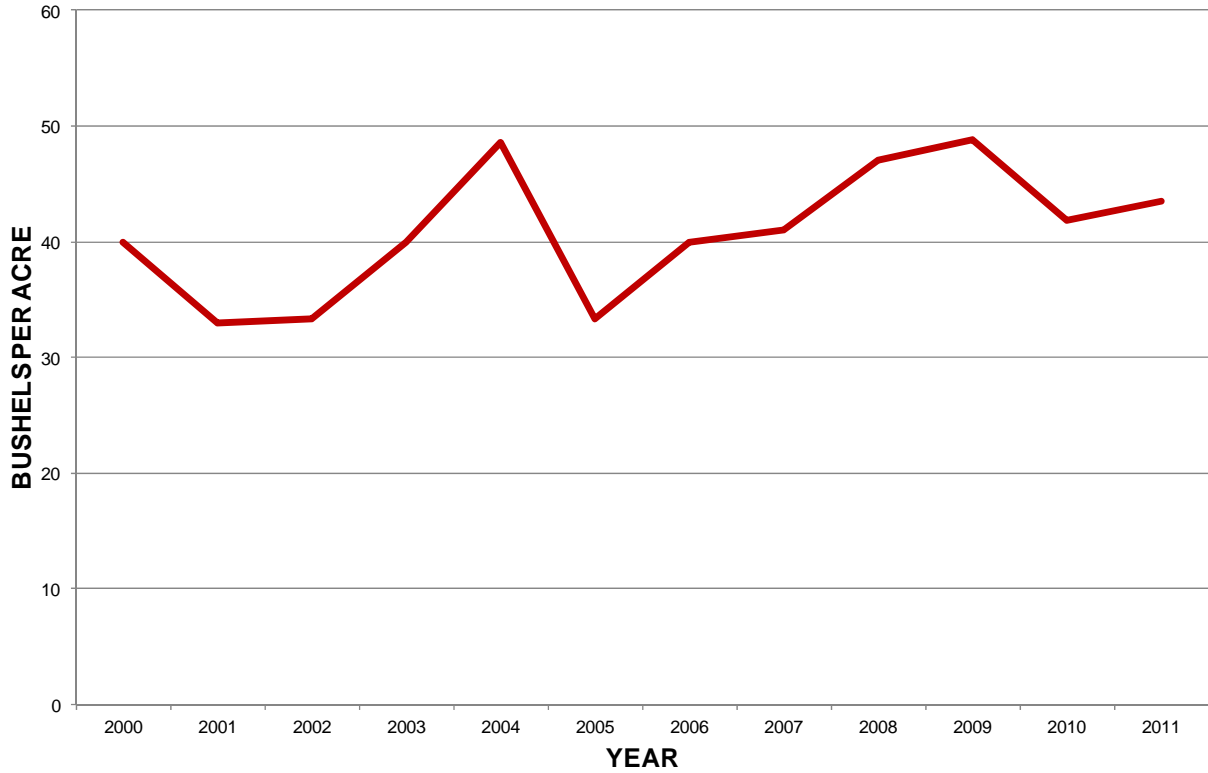
Rye - Harvested Acres in Manitoba 2000 - 2011



Source: Statistics Canada

Industry Intelligence Section, MAFRI

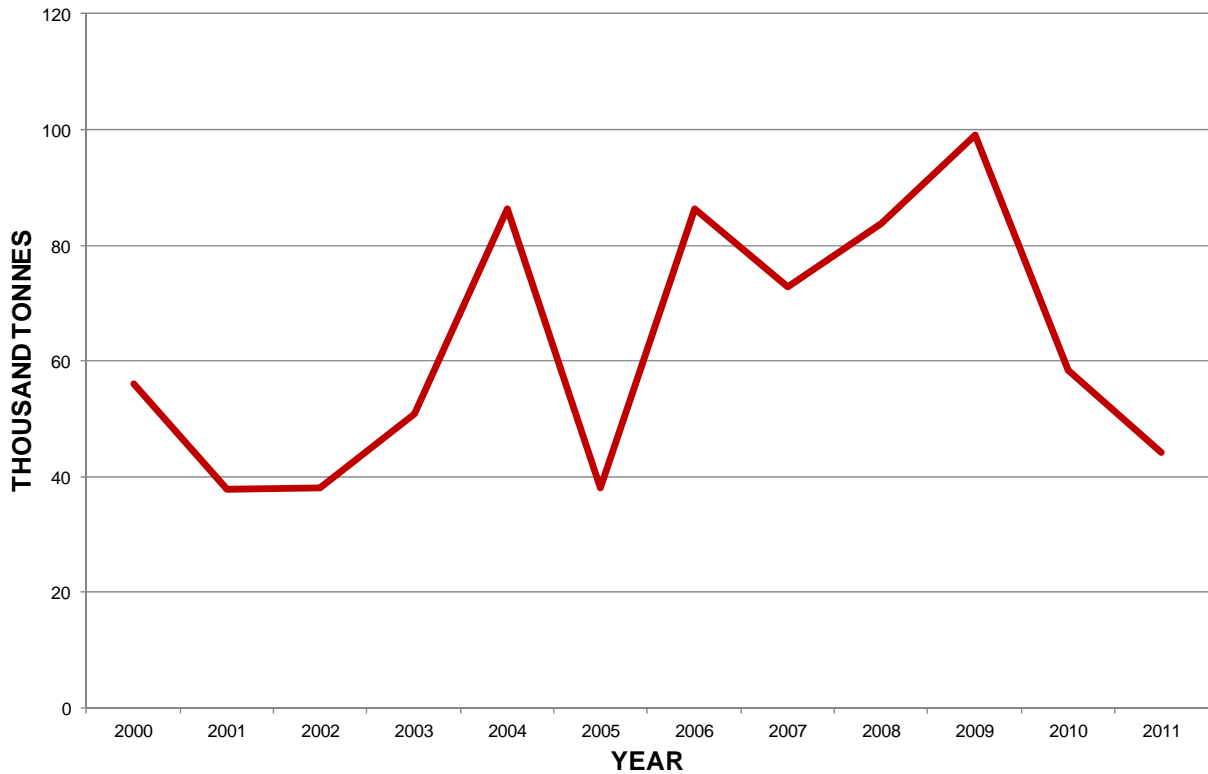
Rye - Yield per Acre in Manitoba 2000 - 2011



Source: Statistics Canada

Industry Intelligence Section, MAFRI

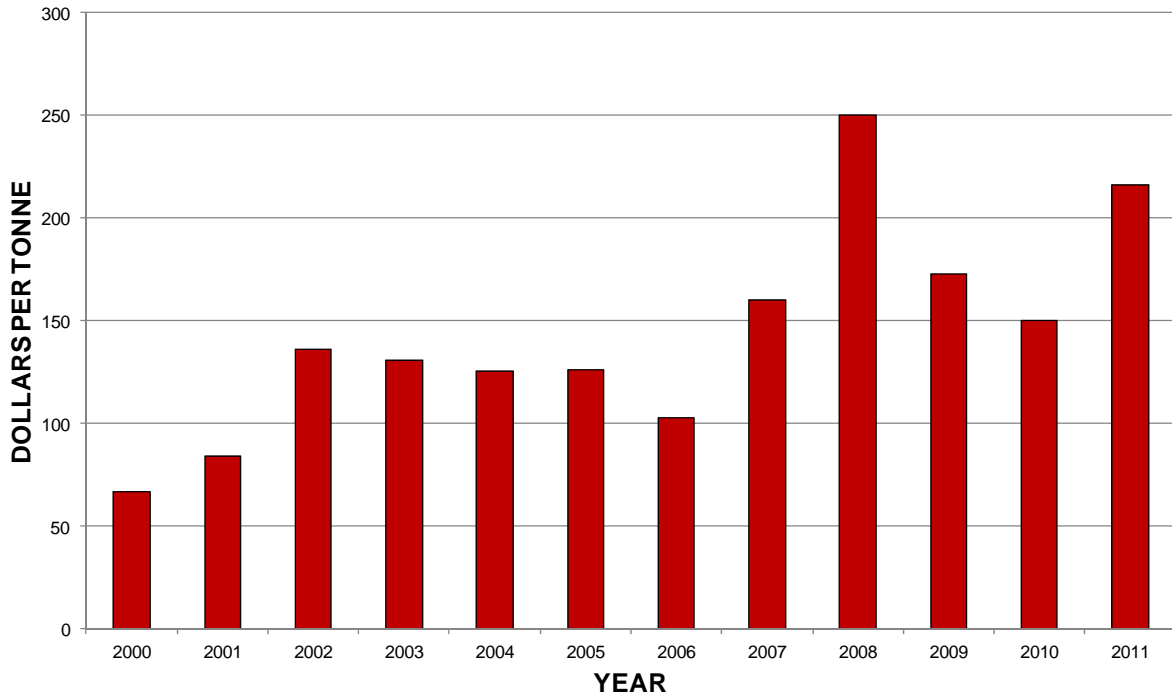
Rye - Tonnes Produced in Manitoba 2000 - 2011



Source: Statistics Canada

Industry Intelligence Section, MAFRI

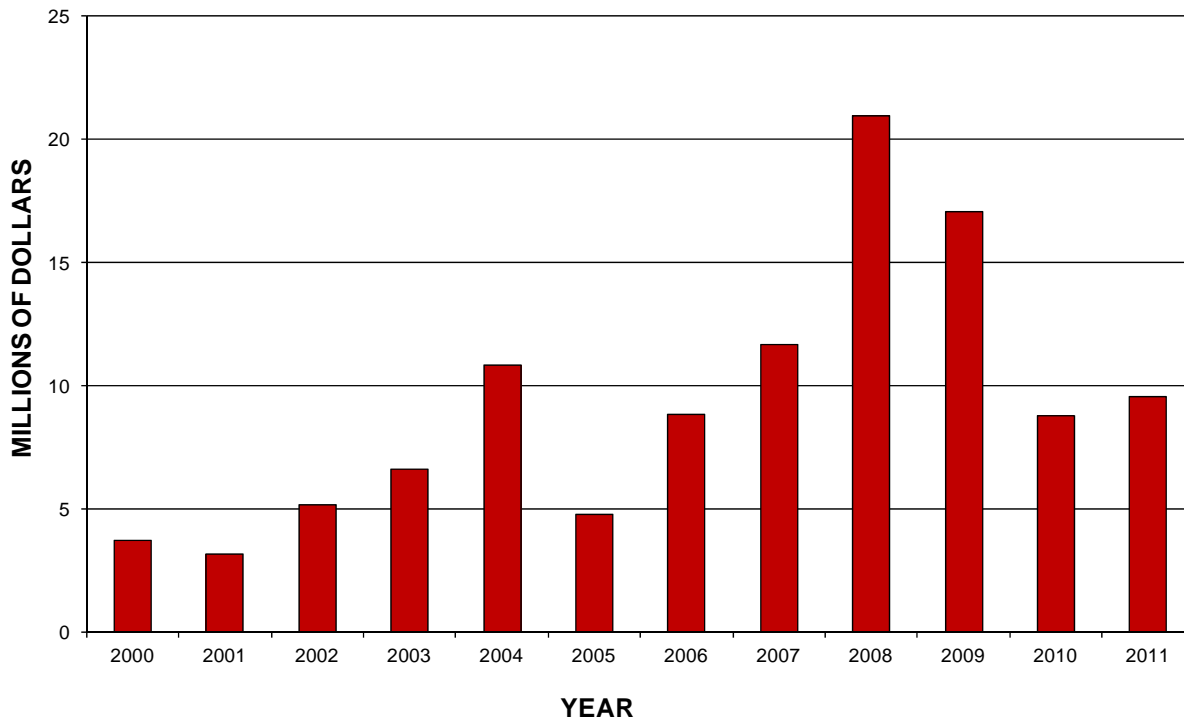
Rye Prices in Manitoba 2000 - 2011



Source: Statistics Canada

Industry Intelligence Section,

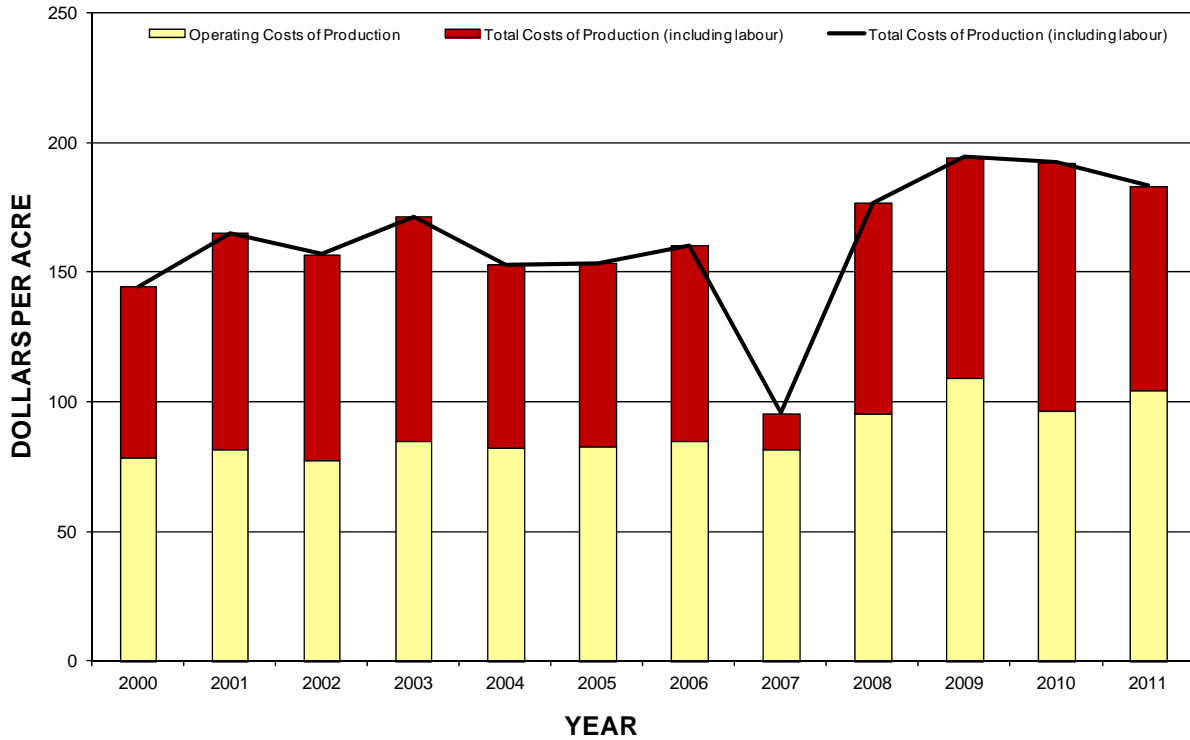
Value of Rye Production in Manitoba 2000 - 2011



Source: STC, AAFC, MAFRI

Industry Intelligence Section, MAFRI

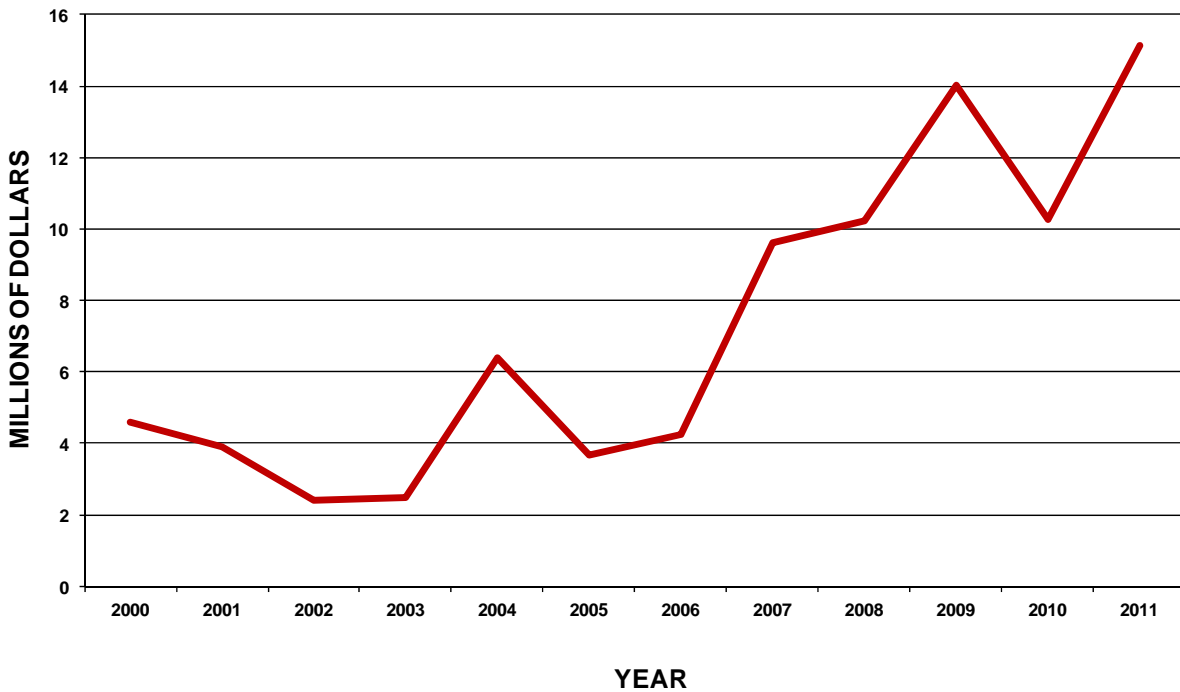
Cost of Rye Production in Manitoba 2000 – 2011



Source: MAFRI

Industry Intelligence Section, MAFRI

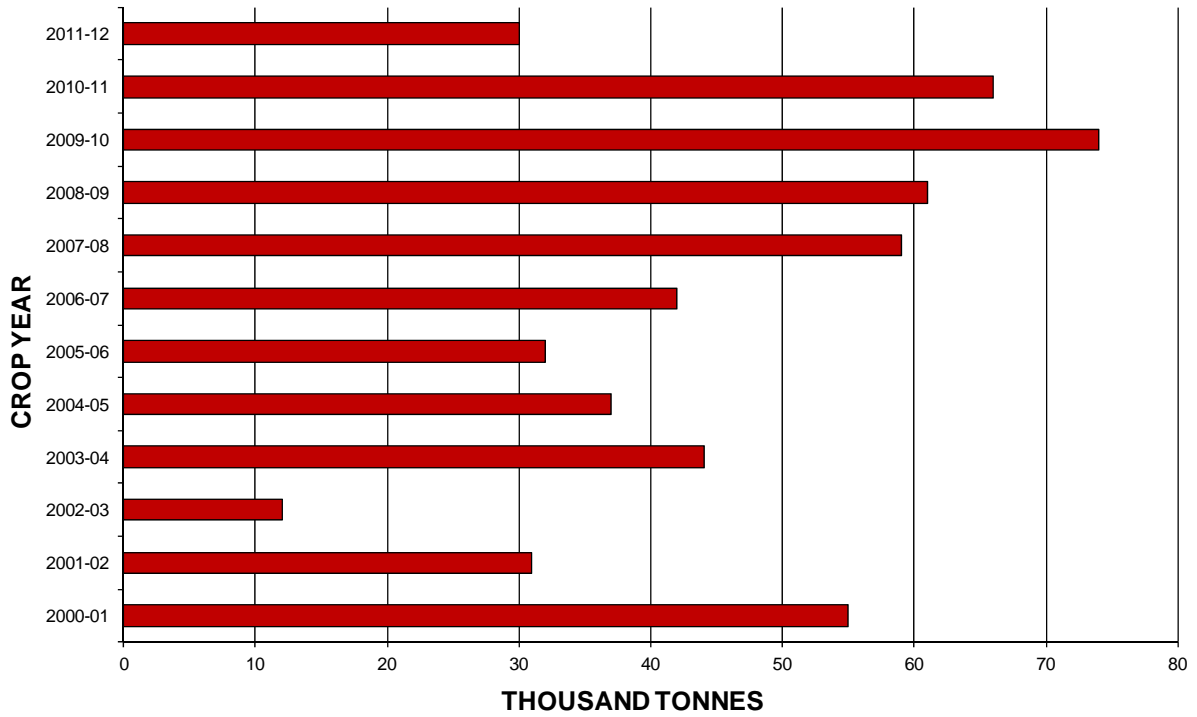
Farm Cash Receipts for Rye in Manitoba 2000 – 2011



Source: Statistics Canada

Industry Intelligence Section, MAFRI

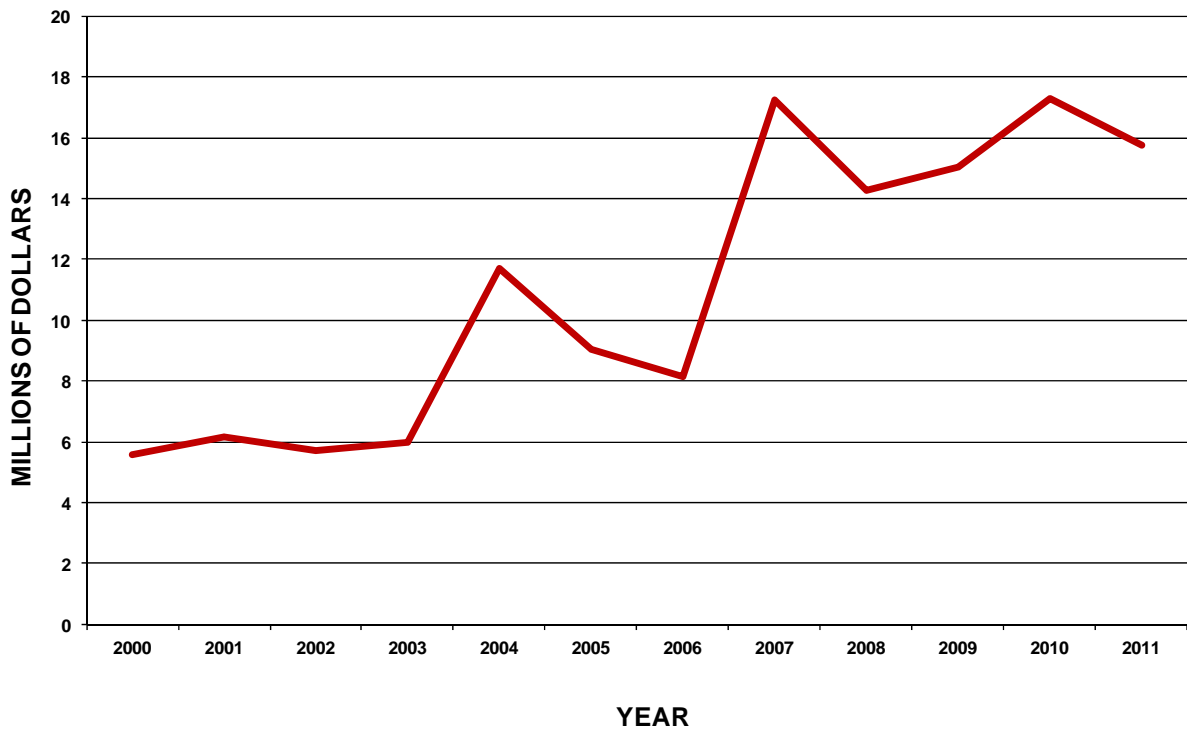
Marketings of Manitoba Rye 2000 - 2011



Source: STC, AAFC, MAFRI

Industry Intelligence Section, MAFRI

Manitoba Rye Exports 2000 - 2011



Source: Statistics Canada

Industry Intelligence Section, MAFRI

Farm Supply and Disposition of Manitoba Rye Crop, 2000/01 to 2011/12

<i>000 tonnes</i>	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Opening Stocks Aug1	25	15	25	1	15	15	1
Production	38	86	73	84	99	58	44
Total Supply	63	101	98	85	114	73	45
Marketings	32	42	59	61	74	66	30
Seed	2	2	2	2	1	1	2
Carry-over	15	24	1	16	15	0	9
Feed/Waste/Dockage	14	33	36	6	24	6	4
Total Disposition	63	101	98	85	114	73	45

<i>000 bushels</i>	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Opening Stocks Aug1	984	591	984	39	591	591	39
Production	1,496	3,386	2,874	3,307	3,897	2,299	1,732
Total Supply	2,480	3,976	3,858	3,346	4,488	2,874	1,772
Marketings	1,260	1,653	2,323	2,401	2,913	2,598	1,181
Seed	92	77	77	87	58	53	79
Carry-over	577	946	41	622	572	-14	354
Feed/Waste/Dockage	551	1,299	1,417	236	945	236	157
Total Disposition	2,480	3,976	3,858	3,346	4,488	2,874	1,772

- RYE - Common Conversions**

1 metric tonne rye = 39.368 bushels.

There are 56 pounds in 1 bushel of rye.

Production and Value of Manitoba Rye

Year	Seeded Area (hectares)	Harvested Area (hectares)	Average Yield (kg per ha)	Production (tonnes)	Price per Tonne (\$/tonne)	Total Value (\$000)
1990	76,900	72,800	2,200	157,500	58	9,135
1991	44,500	32,000	1,900	61,000	71	4,331
1992	32,400	30,400	2,200	66,000	79	5,214
1993	28,300	26,300	1,600	43,200	85	3,672
1994	18,200	18,200	2,100	38,100	99	3,772
1995	32,400	28,300	1,900	53,300	131	6,982
1996	32,400	30,400	2,200	66,000	152	10,032
1997	40,500	34,400	1,800	62,200	154	9,579
1998	52,600	52,600	2,200	116,800	92	10,746
1999	34,400	32,400	2,400	76,200	67	5,105
2000	24,300	22,300	2,500	55,900	67	3,748
2001	24,300	18,200	2,100	37,700	84	3,183
2002	20,200	18,200	2,100	38,100	136	5,195
2003	24,300	20,200	2,500	50,800	130	6,627
2004	34,400	28,300	3,100	86,400	125	10,837
2005	24,300	18,200	2,100	38,100	126	4,804
2006	38,400	34,400	2,500	86,400	102	8,851
2007	32,400	28,300	2,600	72,900	160	11,690
2008	32,400	28,300	3,000	83,800	250	20,958
2009	36,400	32,400	3,100	99,100	172	17,086
2010	24,300	22,300	2,600	58,400	150	8,768
2011	22,300	16,200	2,700	44,200	216	9,542

Year	Seeded Area (acres)	Harvested Area (acres)	Average Yield (bu per acre)	Production (000 bushels)	Price per Bushel (\$/bushel)	Total Value (\$000)
1990	190,000	180,000	34.4	6,200	1.47	9,135
1991	110,000	79,000	30.4	2,400	1.80	4,331
1992	80,000	75,000	34.7	2,600	2.01	5,214
1993	70,000	65,000	26.2	1,700	2.16	3,672
1994	45,000	45,000	33.3	1,500	2.51	3,772
1995	80,000	70,000	30.0	2,100	3.32	6,982
1996	80,000	75,000	34.7	2,600	3.86	10,032
1997	100,000	85,000	28.8	2,450	3.91	9,579
1998	130,000	130,000	35.4	4,600	2.34	10,746
1999	85,000	80,000	37.5	3,000	1.70	5,105
2000	60,000	55,000	40.0	2,200	1.70	3,748
2001	60,000	45,000	33.0	1,485	2.14	3,183
2002	50,000	45,000	33.3	1,500	3.46	5,195
2003	60,000	50,000	40.0	2,000	3.31	6,627
2004	85,000	70,000	48.6	3,400	3.19	10,837
2005	60,000	45,000	33.3	1,500	3.20	4,804
2006	95,000	85,000	40.0	3,400	2.60	8,851
2007	80,000	70,000	41.0	2,870	4.07	11,690
2008	80,000	70,000	47.1	3,300	6.35	20,958
2009	90,000	80,000	48.8	3,900	4.38	17,086
2010	60,000	55,000	41.8	2,300	3.81	8,768
2011	55,000	40,000	43.5	1,740	5.48	9,542

SOURCE: Statistics Canada; Agriculture and Agri-Food Canada; Manitoba Agriculture, Food and Rural Initiatives.

