

Wheat - The King of Crops

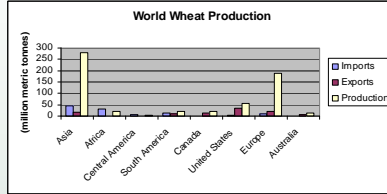
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Manitoba Agriculture, Food and Rural Initiatives

Globally

Wheat (*Triticum spp.*) was first domesticated in the Fertile Crescent (near present-day Turkey) about 10,000 years ago. Globally wheat is the second most produced crop after maize, ahead of rice. According to the Food and Agriculture Organization of the United Nations, world wheat production in 2007 was just over 605 million metric tonnes (mmt), forecasted to increase to 658 mmt in 2008. Together the European Union and China produce close to 40% of the world's wheat, with almost all of their production used domestically.

Globally Canada ranks 7th in wheat production, producing an estimated 20.1 mmt, expected to increase to 25.9 mmt in 2008. While not a large producer of wheat compared to other countries Canada exported almost 75%, or about 15 mmt, of our 2007 crop. This makes Canada the 2nd largest exporter of wheat in the world, behind the United States.



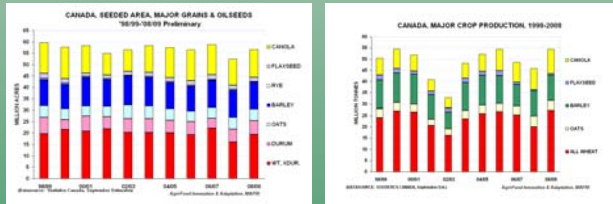
In Canada

Wheat can be grown in all climatic conditions across the Prairies. Wheat is well adapted to grow under cooler and wetter conditions in central and eastern Manitoba as well as the hotter and drier conditions in the Western Prairies. It is well suited to early spring planting due to its tolerance to cool, wet soils and light frosts. The addition of winter wheat in rotation can spread out the seeding workload and widens the fall harvest window. Wheat can be grown equally well under zero-, minimum- and conventional-tillage systems.

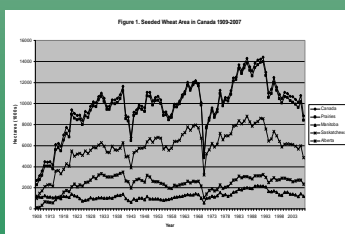
Wheat is a very durable crop, producing acceptable yields even under extremely challenging conditions and having high yield potential under optimum growing conditions. Wheat is a very competitive crop with a wide selection of crop protection products available. When grown in alternate years with broadleaf crops wheat offers flexibility in seed treatment, herbicide, fungicide and insecticide rotations, reducing the risk of pesticide resistance.

How much do we produce?

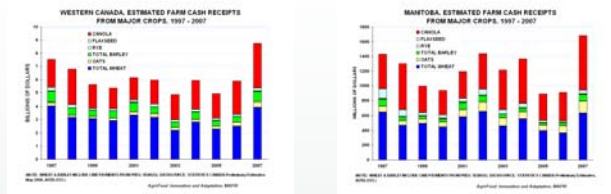
Wheat is Canada's largest crop with most of the production in Western Canada. Statistics Canada estimates over 10,265,000 ha (25,366,800 ac) wheat was seeded in 2008, with over 90% of those acres grown in Manitoba, Saskatchewan and Alberta. Of all the major crops, wheat acres comprise over a third of all crop land seeded in Canada.



Wheat has been described as "the economic fairy to the industrial and commercial life of Canada, having built practically the whole economic structure of the Prairie Provinces". Since the 1920's wheat has continued to play a major role in the financial and cultural development of Western Canada. A steady increase in wheat acres from 1908 until the early 1990's reflects an increase in land under cultivation and a reduction of acres in summerfallow (1970's onward).¹



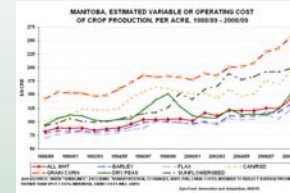
Farm Gate Receipts



Costs of Production

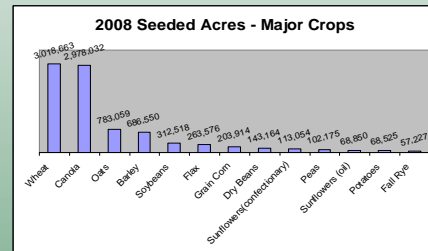
Wheat is a relatively low-input crop compared to other major crops in Manitoba. No specialized equipment is needed to produce this crop, minimizing fixed costs. Many producers consider wheat a low-risk crop, with dependable yields and lower input costs. Guidelines for estimating costs of production in Manitoba can be found at:

<http://www.gov.mb.ca/agriculture/financial/farm/pdf/copcropproductioncosts2008>



In Manitoba

Two crop types predominate in Manitoba – wheat and canola. According to the Manitoba Agriculture Services Corporation (MASC), 3,018,663 acres (1,222,482 ha) were seeded to wheat in 2008. This represents just over a third of all seeded acres of the major crops in Manitoba.



Food, fuel or feed

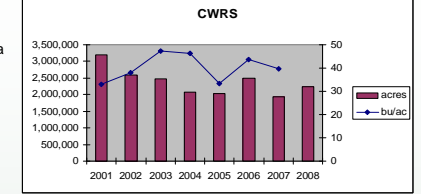
Marketing options are many with a wide range of end uses for this crop. Eight different milling classes of western Canadian wheat, as well as a new class of general purpose wheat for feed and ethanol, give farmers the opportunity to grow different types of wheat. Producers can choose from Canada Western Red Spring (CWRS), Canada Western Hard Durum (CWAD), Canada Western Red Winter (CWRW), Canada Western Hard White (CWHW), Canada Western Extra Strong (CWES), Canada Prairie Spring Red (CPSR), Canada Prairie Spring White (CPSW), Canada Western Soft White Spring (CWSWS), and the new Canada Western General Purpose (CWGP). Over 60 varieties among the milling classes give Manitoba farmers the ability to choose the right cultivar based on agronomic characteristics, pest problems, or specific end use.

There are three main types of wheat in both Manitoba and Western Canada. CWRS – red spring (*Triticum aestivum* L.), CWRW - red winter (*Triticum aestivum* L.) and CWAD - amber durum (*Triticum turgidum* L. ssp. *durum*) dominate the landscape. Across the Prairies about 62% of wheat acres are red spring, 27% are durum and 7% are planted to winter wheat.

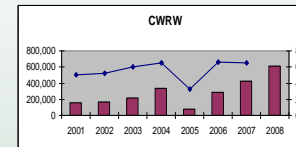
From 2001 to 2008 wheat acres in Manitoba have averaged about 77% red spring, 11% hard white, and 9% winter wheat. Very little durum is grown in Manitoba, except in the extreme southwest. 2008 saw winter wheat jump to over 20% of total wheat acres, with red spring dropping to 74% and hard white wheat down to 2% of the 3,018,663 acres (1,222,482 ha) reported as seeded.

Wheat Trends

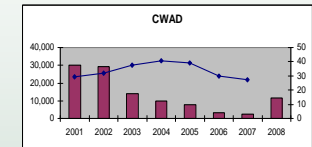
The following data was generated using the Manitoba Management Plus Program (www.mmpg.com). This program allows you to perform regional variety yield searches based on MASC reported data. Data includes all wheat varieties for all risk areas in Manitoba.



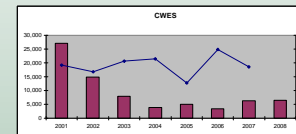
End uses: High volume pan bread and in blends with other wheat for breads, noodles and pasta



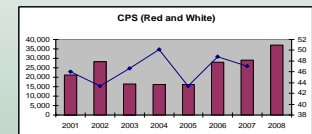
End uses: French bread, flat bread, steamed breads, noodles



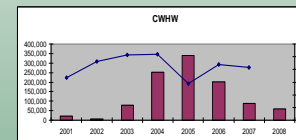
End uses: Semolina for pasta and couscous



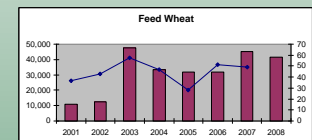
End uses: Blending and specialty products where high gluten strength is needed (eg. frozen dough)



End uses: Hearth breads, steamed bread, flatbreads, noodles



End uses – Bread and noodles



End uses: Livestock rations and ethanol

Note – Feed Wheat as insured through MASC, not an official wheat designation

Summary

Wheat is a mainstay for farmers in Manitoba and across Western Canada for many reasons. Wheat can be grown with relatively low inputs, is readily adaptable across the Prairies and can be marketed through food, fuel or feed avenues. Nine classes of wheat and continued agronomic improvements in new varieties offer producers many options. 150 years of growing wheat has shaped the Prairies and wheat will remain an integral part of Western Canadian agriculture in the years to come.

Some trivia...

John William Sandison (1851-1915), originally from Scotland, moved to the Brandon area and by 1890 had over 2000 wheat acres under cultivation. He was known as the "Wheat King of Manitoba" but suffered a financial crisis in 1893, disappearing overnight leaving debtors owed \$100,000. Brandon is now known as the "Wheat City" and its WHL hockey team is aptly named the "Wheat Kings".

References

¹ A Review of Wheat Cultivars grown on the Canadian Prairies. Brent D. McCallum and Ronald D. Depaul. Canadian Journal of Plant Science. 88:649-677.

Field Crop Reporting Series, September Estimate of Production of Principal Field Crops, Canada. Statistics Canada

Food and Agriculture Organization, World Health Organization

