

What is a typical Manitoba crop producer?



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Cropping in Canada is very diverse. It varies by region and crop specialization and changes year to year. This creates a problem for researchers, policy makers, and others who study cropping practices and need to work out decision scenarios based on “typical” farms — because what is a “typical farm”?

If you go to Statistics Canada they will tell you that according to 2001 census data for Manitoba the average farm size was 891 acres and the average age of the farm operator was 48 years old.

Single-operator farms accounted for 65 per cent of all farms and the proportion of female farm operators was 23 per cent. More than 44 per cent of farm operators were additionally engaged in non-farm work and more than 13 per cent of farmers were more than 65 years old. However, the Statistics Canada data does not state what a typical farm has for a crop distribution and that is what interests many researchers.

To determine the typical crop distribution you could treat all crop farm operations in Manitoba the same and use Statistics Canada data or Manitoba Agricultural Services Corporation (MASC) data for total provincial acres per crop. That data could then be extrapolated to a typical composite average farm. Table 1 lists the results of taking that approach using 2006 MASC acreage information for Manitoba. Unfortunately, this approach does not result in a realistic typical crop distribution.

Assuming an the 2006 average farm size of 989 acres the MASC data in Table 1 indicates that 267 acres would be in red spring (RS) wheat and 234 acres would be in canola — that seems reasonable. However, it also indicates that the same farm would also grow barley, flax, grain corn, tame hay, sunflowers, other wheat, greenfeed, and many other crops — many on fields smaller than 20 acres.

I know Manitoba farmers have increased diversification but I don't think having so many minor crops is realistic. But that is what you get when you take a composite averaging approach. It is similar to saying that because we receive 40 cm of precipitation in a year that we get a 1.1 mm rain every day; it doesn't happen and can be misleading.

Table 1 – Composite average farm crop distribution for Manitoba in 2006 based on MASC information.

% Of Acres 2006	Crop
27.0%	RS Wheat
23.7%	Canola
8.1%	Barley
7.1%	Flax
3.9%	Soybeans
3.1%	Winter Wheat
2.1%	HW Wheat
1.7%	Too Wet To Seed
1.6%	Non-Oil Sunflowers
1.5%	Grain Corn
1.2%	Alfalfa/Grass Hay
1.2%	Pasture etc
1.1%	Greenfeed
16.7%	Many Other Crops <1% Each

So how do you derive a more realistic typical farm crop distribution? The way you do this is to stop treating all producers as the same and separate out the information by region or crop specialization of interest. Additionally, you do not use averages but instead use actual farm medians.

Crop and farm acreage data is positively skewed which means that there is a lot more small acreage farms and small crop acreage in the datasets than would be expected in a normal distribution and the average tends to be larger than the median. Median estimates are preferred because they represent the true midpoint among farms, whereas the average may not.

I analyzed 2006 MASC crop acreage data and determined the typical farm crop distributions for selected crops of interest. In other words I determined what farm crop distributions were present on typical Manitoba grain corn farms, canola farms, etc.

Table 2 lists the median crop acres and median total farm acres for all producers growing a particular crop in 2006. Note that these groupings do overlap — for example, many corn growers will grow canola, and visa-versa — and they would be in both groups.

The table illustrates that farms with a riskier crop focus (e.g. soybeans) tend to be larger farms rather than those farms with a less risky crop focus (wheat). The table also illustrates that the typical high-risk crop focus farm does not devote any more (and maybe less) of a percentage of acreage to the focus crop than lower-risk crop focus farms do to their focus crop.

Table 2 – Median crop acres and median total farm acres for farms growing selected crops in Manitoba in 2006 based on MASC information.

Crop	Acres On Farm In Specific Crop	Associated Total Farm Acres	% Acres In Specific Crop
Oat	130	743	18%
RS Wheat	285	855	33%
Flax	140	917	15%
Canola	260	959	27%
Grain Corn	160	1091	15%
Soybean	170	1245	14%
Navy Bean	160	1393	12%
Sunflower	206	1507	14%



The 2006 MASC acreage data was also analyzed to identify the major crops associated with each focal crop. The other associated crops were defined as the crops that more than 50 per cent of growers in that focus crop group also grew in 2006.

In the case of oat and navy bean the majority of growers also grew red spring wheat (RS) or canola. In the case of RS wheat the majority of growers also grew canola and the reverse was true for canola. The majority of flax and soybean growers also grew RS wheat, canola, or oat. The majority of sunflower growers also grew RS wheat, canola, or soybean. Finally, the majority of grain corn growers also grow RS wheat, canola or soybean.

It is interesting to note that canola was the one crop consistently shared with all crops.

To select a typical farm the median acreage and associated crop information described previously was used to select an actual producer from each focus crop group that was close to the median of the grouping and also roughly fit the farm size and crop combination profile. The selected actual producer results from this selection process are listed in Table 3.

Please note that these are not recommended farm crop distributions but are simply randomly selected crop distributions from actual operations that roughly fit the determined profile. If you consider yourself a farm operator who produces one of these focus crops and you consider yourself to be in the “middle of the pack” it could be your 2006 farm crop distribution listed in Table 3. Check it and see.

Table 3 – “Typical” farm crop distributions associated with selected crops for median farms growing selected crops in Manitoba in 2006 based on MASC information.

Crop	Median Farm Crop Distribution	Median Farm Total Acres
Oat	Oat - 130 ac, RS Wheat - 125 ac, Barley - 77 ac, Canola - 110 ac, Hay - 234 ac, Greenfeed - 30 ac.	706 ac
RS Wheat	RS Wheat - 283 ac, Oat - 167ac, Flax - 145 ac, Canola - 230 ac.	825 ac
Flax	Flax - 140 ac, RS Wheat - 454 ac, Barley - 44ac, Canola - 141 ac.	779 ac
Canola	Canola - 260 ac, RS Wheat - 310 ac, Barley - 152 ac, Flax - 90 ac, CPS Wheat - 158 ac, Greenfeed - 40 ac.	1,010 ac
Grain Corn	Grain Corn - 160 ac, RS Wheat - 390 ac, Oat - 190 ac, Barley - 162 ac, Canola - 90 ac, Oil Sunflowers - 153 ac, Navy Beans - 270 ac, Soybeans - 230 ac.	1,645 ac
Soybean	Soybean - 167 ac, RS Wheat - 307 ac, Oat - 315 ac, Canola - 445 ac.	1,234 ac
Navy Bean	Navy Bean - 160 ac, RS Wheat - 460 ac, Oat - 126 ac, Canola - 290 ac, Grain Corn - 120 ac, Non-Oil Sunflowers - 300 ac.	1,456 ac
Sunflower	Non-Oil Sunflowers - 210 ac, RS Wheat - 429ac, Flax - 255 ac, Canola - 305 ac, Winter Wheat - 115 ac.	1,314 ac

Yield Manitoba provides major crop yield data at the risk area level. For yield data at the rural municipality level, and for other crops, check out the variety query tool on Manitoba’s Management Plus Program website...



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