Bi-weekly Bulletin

February 18, 2000 *Vol. 13 No. 4*

CANADA: AREA SEEDED FOR 2000-2001

Expected net returns, derived from projected prices, yields, and variable costs of production, exert a major influence on seeding decisions. However, soil moisture, carry-in stocks, cash flow, crop rotation requirements, disease, and pest problems are also very important factors that are taken into consideration. In Canada, seeded area for 2000-2001 is expected to shift from oilseeds to durum, barley, spring wheat, and certain special crops. This issue of the *Bi-weekly Bulletin* examines the returns and expected area seeded for the various crops in Canada.

Relative net returns are one of the most important factors affecting cropping decisions, especially during a period of low crop prices. Net returns relative to variable or operating costs affect short-term cropping decisions, while net returns over total costs (fixed and variable) influence long-term decisions, such as rotation patterns and entry into and exit from the industry. Fixed costs vary across provinces by soil type, farm size, and type of operation. For example, land values in Ontario make the fixed costs of production much higher than in Western Canada. As each province's agriculture department uses a different methodology, the crop budgets are not comparable across provinces. Expected prices and yields have been forecast by Agriculture and Agri-Food Canada (AAFC).

SOIL ZONES

Detailed crop budgets of the variable costs are provided for various soil zones for stubble crops in the Prairie provinces and Ontario. Saskatchewan Agriculture and Food provides crop budgets for crops seeded to fallow and stubble land in the brown, dark brown and black soil zones. Alberta Agriculture, Food and Rural Development (AAFRD) provides budgets for crops seeded to fallow and stubble in the brown, and dark brown soil zones. For the black and gray soil zones, AAFRD provides budgets for only the crops seeded to stubble. Manitoba Agriculture and the Ontario Ministry of Agriculture, Food and Rural Affairs provide provincial crop budgets only.

Productivity in Western Canada depends on soil type. For instance, the brown soil found in the semi-arid region of the Prairies is subject to wide variations in crop yields and is subject to drought due to low average precipitation in the region, while dark brown soil is less vulnerable to drought. The black soil zone has better moisture retention characteristics than the brown soil, resulting in higher average yields, and is rarely subject to drought. The gray soil zone, extending into the northern regions of the Prairies, is characterized by higher moisture levels, cooler temperatures, and a shorter growing season. Climatic conditions also influence the susceptibility of crops to disease and pest infestations, requiring different combinations and levels of herbicides and pesticides. Therefore, there are significant variations in the crop budgets on the basis of expected yields and the variable costs of production for the individual soil types.

PRICE FORECASTS

Average farm prices by province have been forecast by AAFC, assuming normal growing conditions. Unusual weather in the major importing or exporting countries, and other changes in market conditions, could change the forecasts considerably.

YIELD FORECASTS

Average provincial yields have been forecast by AAFC, using trend analysis. For 2000-2001 a return to normal yields is expected from the historically high yields of 1999-2000 which resulted from very favourable growing conditions. Adjustments for soil zone are based on historical yield variations between soil zones using Statistics Canada data. Adjustments to a 'stubble' basis were based on provincial data.

CROP BUDGETS: PRAIRIE PROVINCES

The crop budget tables show significant differences in variable costs between provinces and soil zones. Much of the variation between provinces is due to seed (including treatment) costs, and the costs of fertilizer and pesticides. To compare budgets across the provinces, custom work costs for Western Canada have been included in the chemical costs, while for Ontario, custom work costs have been apportioned to chemical and fertilizer costs. The 'other' cost category is used to assign a value to overhead expenses such as utilities, and in Ontario also expresses marketing fees. The cost of management and/or owner/operator labour has not been included in the following budgets.

CANADA: AREA SEEDED

	1999	2000f	Change
	...'000 ha...		%
Durum	1,777	2,425	36.5
Wheat ex. Durum	8,676	8,960	3.3
All Wheat	**10,453**	**11,385**	**8.9**
Barley	4,409	4,644	5.3
Corn	1,158	1,165	0.6
Oats	1,886	1,900	0.7
Rye	225	164	-27.2
Mixed Grain	274	275	0.4
Coarse Grains	**7,951**	**8,147**	**2.5**
Canola	5,599	5,000	-10.7
Flaxseed	809	495	-38.8
Soybeans	999	1,000	0.1
Oilseeds	**7,407**	**6,494**	**-12.3**
Dry Peas	851	979	15.0
White Pea Beans	76	79	3.1
Coloured Beans	78	83	7.0
Lentils	506	583	15.1
Mustard	280	266	-5.0
Sunflower	85	90	5.9
Canary Seed	150	142	-5.2
Chick Peas	150	165	10.3
Buckwheat	14	15	7.9
Special Crops	**2,190**	**2,402**	**9.7**
Summerfallow	6,056	5,441	-10.2

Totals may not add due to rounding
f: forecast, AAFC, February 2000
Source: Statistics Canada

In **Manitoba,** the highest projected net return is for lentils, followed by spring wheat, peas, and oats. Net returns are the lowest for flaxseed, feed barley, and canola. Strong local feed demand and strong returns for malting barley will support barley production, and the margin for canola may be improved through more conservative input use.

In the **Saskatchewan brown soil zone,** Desi chick peas, Kabuli chick peas, and lentils have the highest margins, but the increase in area seeded to these crops will be limited due to risks associated with special crop production. The projected net return for durum and yellow mustard are higher than spring wheat. Returns are lowest for feed barley. In the **black soil zone**, malting barley (Special Select 2 Row - SS2R) has the highest potential net return, followed by spring wheat, peas, feed barley and canola. Returns from oats are the lowest.

In the **Alberta brown soil zone**, the potential net returns for Kabuli chick peas and lentils are by far the highest, but as in Saskatchewan, area seeded to special crops will be limited by production and price risks inherent in special crop production. Spring wheat, durum, and feed barley are forecast to have positive net returns, while Polish canola will yield a negative return. In the **black soil zone**, the net returns for wheat are forecast to be relatively high, followed by peas, Canada Prairie Spring (CPS) wheat, feed barley, and Argentine canola. The lowest net returns are for feed oats.

AREA SHIFTS

The current area seeded projections have been revised from the AAFC January 7, 2000 releases of the *Grains and Oilseeds Outlook* and *Special Crops Outlook*.

In **Western Canada**, the large unseeded area in 1999 makes comparisons with the areas projected for 2000 difficult. Although area seeded for certain crops, such as spring wheat and oats, appear to be increasing, much of the increase is merely due to a return to a normal seeded area.

All wheat seeded area is projected to increase to over 11 million hectares (Mha) from 1999. Of that, **spring wheat** area is forecast to increase slightly from 8.2 Mha in 1999 to 8.5 Mha in 2000, largely due to the higher expected net returns compared to most alternative crops and cash flow considerations. Area seeded to all cereal crops including wheat, durum, barley, and oats will be supported by the relatively lower costs of production. **Durum** area is expected to increase by about 36% to

CROP BUDGETS: 2000-2001

MANITOBA

	Spring Wheat	Feed Barley[4/]	Canola	Flax-seed	Oats	Lentils	Peas
Variable Costs [1/]				$/ha			
Seed (inc. treatment)	28.50	15.98	61.74	27.00	25.12	34.65	58.80
Fertilizer	58.04	58.04	71.78	51.23	53.93	44.24	41.14
Chemicals	58.07	58.07	119.85	56.83	12.97	124.79	59.31
Fuel	27.80	27.80	27.80	27.80	27.80	30.27	32.74
Repairs	24.71	24.71	24.71	24.71	24.71	27.18	25.95
Crop Insurance	14.58	11.98	25.70	14.21	15.69	21.25	15.07
Interest	9.75	9.15	14.55	9.36	7.69	12.58	10.65
Other	18.53	18.53	18.53	18.53	18.53	18.53	19.77
Total Variable Costs	**239.98**	**224.26**	**364.66**	**229.67**	**186.44**	**313.49**	**263.43**
Projected Returns [2/]	**2 CWRS***	**1 CW**	**1 CAN**	**1 CW**	**3 CW**	**2 CAN**	**3 CAN**
Projected Yield (t/ha)	2.30	3.30	1.59	1.40	2.75	1.30	2.25
Projected Price ($/t)	140.00	75.00	233.00	190.00	85.00	350.00	145.00
Projected Revenue ($/ha)	322.00	247.50	370.47	266.00	233.75	455.00	326.25
Net Return ($/ha)	**82.02**	**23.24**	**5.81**	**36.33**	**47.31**	**141.51**	**62.82**

SASKATCHEWAN: Brown Soil Zone - conventional seeded stubble

	Spring Wheat	Durum Wheat	Feed Barley[4/]	Lentils	Yellow Mustard	Kabuli Chick Peas	Desi Chick Peas
Variable Costs [3/]				$/ha			
Seed (inc. treatment)	13.96	19.24	11.78	57.80	7.66	217.85	68.05
Fertilizer	37.79	37.79	37.79	19.93	44.46	19.93	19.93
Chemicals	46.02	46.56	41.47	91.54	62.32	58.56	58.56
Fuel	20.25	20.25	20.25	22.28	21.27	22.28	22.28
Repairs	14.82	14.82	14.82	22.23	14.82	22.23	22.23
Crop Insurance	5.66	5.98	9.04	22.16	10.65	21.88	15.26
Interest	5.38	5.61	5.26	9.04	6.25	13.81	7.93
Other	5.16	5.16	5.16	5.16	5.16	5.16	5.16
Total Variable Costs	**149.04**	**155.41**	**145.58**	**250.14**	**172.58**	**381.71**	**219.41**
Projected Returns [2/]	**1 CWRS***	**1 CWAD***	**1 CW**	**1 CAN**	**1 CAN**		
Projected Yield (t/ha)	1.55	1.55	2.00	1.10	0.80	1.20	1.50
Projected Price ($/t)	140.00	150.00	80.00	345.00	310.00	460.00	265.00
Projected Revenue ($/ha)	217.00	232.50	160.00	379.50	248.00	552.00	397.50
Net Return ($/ha)	**67.96**	**77.09**	**14.42**	**129.36**	**75.42**	**170.29**	**178.09**

SASKATCHEWAN: Black Soil Zone - conventional seeded stubble

	Spring Wheat	Malting Barley	Feed Barley[4/]	Oats	Peas	Flaxseed	Canola
Variable Costs [3/]				$/ha			
Seed (inc. treatment)	15.17	12.97	12.97	14.23	40.01	11.68	29.64
Fertilizer	52.61	52.61	52.61	52.61	26.60	52.61	65.95
Chemicals	67.93	52.71	52.71	34.41	69.65	66.69	65.01
Fuel	20.25	20.25	20.25	20.25	22.28	22.28	21.27
Repairs	19.76	19.76	19.76	19.76	28.16	23.71	19.76
Crop Insurance	7.81	7.51	7.51	7.19	8.08	10.87	12.13
Interest	7.16	6.52	6.52	5.85	7.58	7.34	8.30
Other	7.76	7.76	7.76	7.76	7.76	7.76	7.76
Total Variable Costs	**198.44**	**180.09**	**180.09**	**162.06**	**210.12**	**202.94**	**229.81**
Projected Returns [2/]	**2 CWRS***	**SS2R**	**1 CW**	**3 CW**	**3 CAN**	**2 CW**	**1 CW**
Projected Yield (t/ha)	2.05	2.85	3.00	2.35	1.95	1.30	1.25
Projected Price ($/t)	136.00	125.00	80.00	70.00	140.00	183.00	228.00
Projected Revenue ($/ha)	278.80	356.25	240.00	164.50	273.00	237.90	285.00
Net Return ($/ha)	**80.36**	**176.16**	**59.51**	**2.44**	**62.88**	**34.96**	**55.19**

Totals may not add due to rounding
[1/] Manitoba Agriculture
[2/] AAFC forecast
[3/] Saskatchewan Agriculture and Food
[4/] Off-Board
* Wheat: 13.5% protein / Durum: 13% protein

CROP BUDGETS: 2000-2001

ALBERTA: Brown Soil Zone - stubble

	Spring Wheat	Durum Wheat	Feed Barley [4/]	Polish Canola	Lentils	Kabuli Chick Peas
Variable Costs [1/]			$/ha			
Seed (inc. treatment)	17.29	17.91	14.82	22.23	49.40	172.90
Fertilizer	49.40	49.40	49.40	56.32	18.28	18.28
Chemicals	58.05	58.05	29.64	60.52	48.17	60.52
Fuel	14.82	14.82	14.82	14.82	14.82	14.82
Repairs	17.29	17.29	17.29	17.29	19.76	19.76
Crop Insurance	8.42	9.66	9.61	15.09	14.82	14.82
Interest	4.94	4.94	4.94	4.94	6.18	6.18
Other	13.59	13.59	13.59	13.59	13.59	13.59
Total Variable Costs	**183.79**	**185.65**	**154.10**	**204.79**	**185.00**	**320.85**
Projected Returns [2/]	**1 CWRS***	**1 CWAD***	**1 CW**	**1 CAN**	**1 CAN**	
Projected Yield (t/ha)	1.48	1.48	1.72	0.78	1.10	1.20
Projected Price ($/t)	148.00	143.00	95.00	233.00	350.00	460.00
Projected Revenue($/ha)	219.04	211.64	163.40	181.74	385.00	552.00
Net Return ($/ha)	**35.25**	**25.99**	**9.30**	**-23.05**	**200.00**	**231.15**

ALBERTA: Black Soil Zone

	Spring Wheat	CPS Red Wheat	Feed Barley [4/]	Oats	Peas	Argentine Canola
Variable Costs [1/]			$/ha			
Seed (inc. treatment)	27.17	49.40	19.76	19.76	59.28	29.64
Fertilizer	75.46	75.46	75.46	75.46	49.65	94.60
Chemicals	54.34	54.34	54.34	23.47	66.69	79.04
Fuel	16.06	16.06	16.06	16.06	16.06	16.06
Repairs	24.70	24.70	24.70	24.70	27.17	24.70
Crop Insurance	7.26	7.76	6.67	8.03	7.78	11.95
Interest	4.94	4.94	4.94	4.94	4.94	6.18
Other	13.59	13.59	13.59	13.59	13.59	13.59
Total Variable Costs	**223.51**	**246.23**	**215.51**	**185.99**	**245.15**	**275.75**
Projected Returns [2/]	**2 CWRS***	**1 CPS**	**1 CW**	**3 CW**	**3 CAN**	**1 CAN**
Projected Yield (t/ha)	2.60	3.05	3.20	2.50	2.50	1.55
Projected Price($/t)	143.00	110.00	95.00	80.00	145.00	233.00
Projected Revenue($/ha)	371.80	335.50	304.00	200.00	362.50	361.15
Net Return ($/ha)	**148.29**	**89.27**	**88.49**	**14.01**	**117.35**	**85.40**

ONTARIO

	SWW Wheat	HRW Wheat	Feed Barley	Grain Corn	Soybeans	White Pea Beans
Variable Costs [3/]			$/ha			
Seed (inc. treatment)	86.45	107.69	61.75	121.03	91.39	81.51
Fertilizer	115.35	143.26	102.51	200.07	28.90	43.22
Chemicals	12.35	12.35	85.22	122.27	103.74	96.33
Fuel	25.94	25.94	34.58	43.22	33.35	39.52
Repairs	44.46	44.46	49.40	46.93	39.52	61.75
Crop Insurance	14.94	14.94	11.86	19.76	15.93	41.13
Interest	12.35	22.23	12.35	29.64	17.29	19.76
Other	12.92	12.67	n/a	2.91	1.85	n/a
Total Variable Costs	**324.75**	**383.54**	**357.66**	**585.83**	**331.97**	**383.22**
Projected Returns [2/]	**1 CEWW**	**1 CERW**		**2 CE**	**2 CW**	**1 CAN**
Projected Yield (t/ha)	4.27	4.02	3.19	7.28	2.65	1.70
Projected Price($/t)	105.00	115.00	107.00	115.00	235.00	520.00
Projected Revenue($/ha)	448.35	462.30	341.33	837.20	622.75	884.00
Net Return ($/ha)	**123.60**	**78.76**	**-16.33**	**251.37**	**290.78**	**500.78**

Totals may not add due to rounding
[1/] Alberta Agriculture, Food and Rural Development
[2/] AAFC forecast
[3/] Ontario Ministry of Agriculture, Food and Rural Affairs
[4/] Off-Board
* Wheat: 13.5% protein / Durum: 13% protein

2.4 Mha in 2000. Durum area decreased significantly in 1999 due to expectations of very low durum prices associated with a major increase in durum area seeded in the US last spring. However, due to poor growing conditions in the US, durum prices remained very strong in 1999-2000 with a $38 per tonne (/t) premium to spring wheat. The Market Analysis Division is forecasting a major decrease in durum prices for 2000-2001, with the premium to Canada Winter Red Spring wheat falling to $10/t. However, planting decisions for 2000-2001 are expected to be strongly influenced by the strong durum prices which have prevailed in 1999-2000. In the southern Prairies, a decrease in spring wheat area due to a shift into durum is expected. However, in the more northerly regions, this will be more than offset by a shift into spring wheat from oilseeds.

Despite relatively low projected net returns for feed barley, area seeded to **barley** in Western Canada is forecast to increase slightly from 1999 to 4.3 Mha, due to strong domestic demand from a growing livestock sector and good projected returns from malting barley. Exports are also expected to increase slightly, although the exportable surplus will again be limited by domestic demand. Two row malting barley prices are expected to decrease slightly but six row malting barley prices are expected to decrease by a greater extent assuming that US production returns to normal. Area seeded to **oats** in Western Canada is projected to remain flat at about 1.8 Mha in 2000-2001 despite relatively poor projected net returns.

The global price outlook for **oilseeds** in Canada is expected to remain weak, similar to 1999-2000, largely driven by the US soybean and soyoil market. US soybean supplies are expected to be burdensome in 2000-2001 due to high carry-in stocks and increased production. Vegetable oil prices are expected tor remain historically weak .

Canola area is projected to decrease by 11% to 5.0 Mha in Western Canada, due to declining canola prices. However, the area seeded to canola is expected to remain higher than warranted by current returns due to its historic role as a cash crop and its role as a key crop within the crop rotation. Although canola prices have been historically low in 1999-2000, a large number of producers are expected to continue to plant the 'Cinderella' crop.

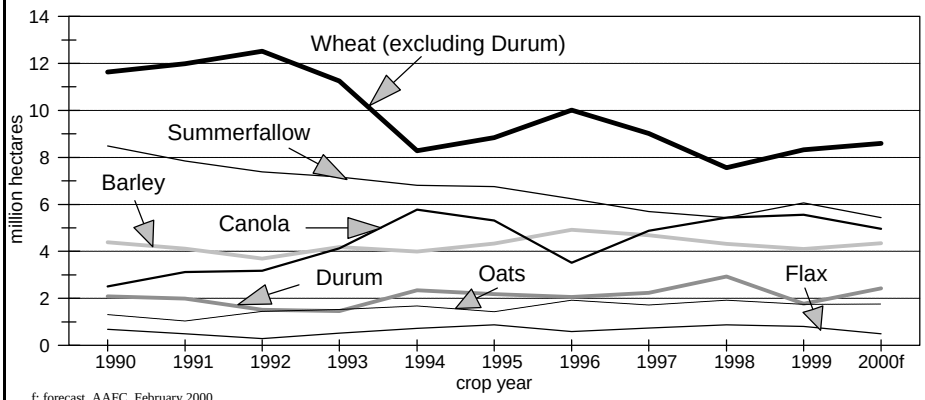
Flaxseed area is forecast to decrease by about 40% to 0.5 Mha in 2000, due to its relatively weak projected net return. Prices for flaxseed have been weak for two years in a row which, in conjunction with increased carry-in stocks, is expected to create a bearish outlook for producers. Carry-in stocks are

expected to triple in 2000-2001 to near record highs.

Special Crops
In Western Canada, area seeded to special crops in 2000 is expected to increase by about 10% to 2.4 Mha. Area seeded to **dry peas** and **lentils** are forecast to each increase by 15% to 0.98 Mha, and 0.58 Mha, respectively. The increase in dry pea area can be attributed to a switch from canola and the importance of peas in crop rotations. For lentils, high projected net returns as compared to other crops are expected to result in higher seeded area in 2000. For **mustard seed**, area is forecast to decrease by 5% to 0.27 Mha because of high carry-in stocks. Prices have declined significantly from 1998-1999, however, net return compared to other crops is still favourable. Oriental and brown mustard have higher yields but usually slightly lower price versus yellow mustard. Due to large carry-in stocks, area seeded to **canary seed** is forecast to decrease by 5% to 0.14 Mha.

Summerfallow area has been steadily declining since 1988, reaching a low of 5.4 Mha in 1998, because new technology, especially herbicide, has allowed for continuous cropping. Also the increased availability of alternative crops, some of which are nitrogen-fixing, and the use of crop rotation, has decreased the producers' reliance on summerfallow. In 1999, however, wet conditions in southwestern Manitoba and southeastern Saskatchewan prevented large areas of land from being seeded, and this land had to be left fallow. As a result, summerfallow area rose by 11% in 1999, to 6.1 Mha, the highest since 1996. Assuming normal moisture conditions in the spring of 2000, summerfallow area is expected to decline to 5.4 Mha. If conditions are excessively dry, the area could be higher than expected. Many farmers, especially in southern Saskatchewan, will not risk seeding a crop into stubble land if there is little available moisture at the time of seeding.

WESTERN CANADA : MAJOR CROP AREAS



f: forecast, AAFC, February 2000
Source: Statistics Canada

Ontario
Area seeded to **winter wheat** in the fall of 1999 remained flat at 0.29 Mha. Expected net returns for winter wheat are lower than for other crops such as white beans, soybeans, and grain corn. However, winter wheat is a rotation crop for many Ontario farmers, with seeded area dependent on fall seeding conditions. Spring wheat plantings, mostly in Eastern and Northern Ontario, are expected to decrease by 5% for 2000 to 29,000 hectares (ha) due to the projected better net returns of corn and soybeans.

Area seeded to **corn**, and **soybeans** is expected to remain flat at 0.74 Mha and 0.86 Mha, respectively. Although soybean area has been steadily increasing over the years, climatic conditions and crop rotation considerations remain the major limiting factors to any further increases in soybean area.

Although the expected net return is the highest for **white beans** in Ontario, the area seeded to white beans is forecast to decrease by 10% to 31,000 ha. This is due to the relative decrease from the net margin that was forecast in the spring of 1999. The current projected net return is not high enough to cover the increased production and price risks associated with beans. **Coloured bean** area is also expected to decrease by 5% to 19,300 ha.

SUMMARY

To summarize, in **Western Canada**, area is expected to shift out of oilseeds into durum wheat, barley, spring wheat, and certain special crops. Area left in summerfallow is expected to return to the 1998-99 level, assuming a return to normal precipitation levels. Although yielding a comparatively higher return than most other crops, net returns for spring wheat remain historically low. In **Eastern Canada**, area seeded in 2000-2001 is forecast to remain similar to last year.

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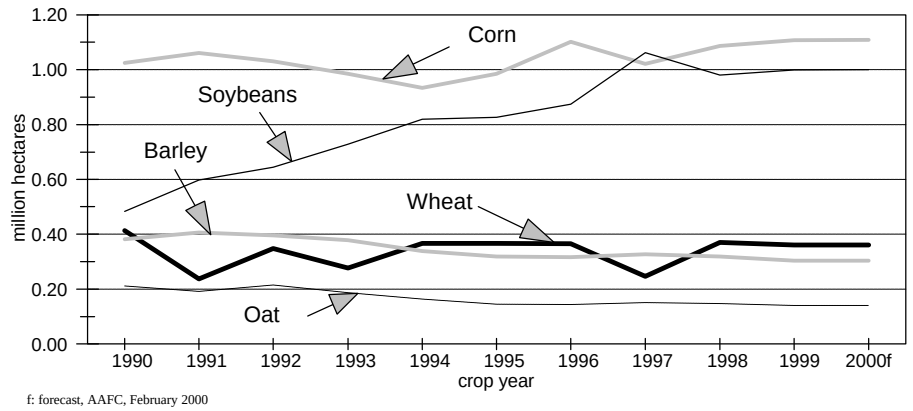
EASTERN CANADA : MAJOR CROP AREAS



f: forecast, AAFC, February 2000
Source: Statistics Canada

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