

LATE SEEDING OF SPRING CEREALS

What is the Yield Potential for Late-Planted Spring Cereals?

When looking at Manitoba Agricultural Services Corporation (MASC) data, yield potential for late-planted spring cereal crops varies by area of the province and crop type (see tables below). By the 4th week of May, yields for spring wheat (Canadian Western Spring Wheat – CWRS) range from 81% up to 90% of normal yield potential. For oats, yields range from 85% up to 98% of normal yield potential across Manitoba when seeded last week of May. However, once seeding moves into June, yield potential for cereals in general does start to decline and for some crop types the yield potential can decline substantially.

Tables 1, 2 & 3: Relative yield (expressed as a %) of spring cereal crops by seeding date and region.

Seeding Date	Province (All Risk Areas)			Red River Valley (Risk Area 12, 32)		
	Wheat	Barley	Oats	Wheat	Barley	Oats
<05	112	116	116	109	113	111
01/05	106	110	110	103	104	104
02/05	100	105	105	95	98	97
03/05	93	98	98	92	87	91
04/05	87	91	89	89	84	85
01/06	75	78	75	67	65	62
02/06	66	69	66	61	59	61
03/06	56	62	55	51	53	53

Seeding Date	Southeast (Risk Area 14)			South Central (Risk Area 5, 10, 11)			West Central (Risk Area 4, 6)		
	Wheat	Barley	Oats	Wheat	Barley	Oats	Wheat	Barley	Oats
<05	114	124	111	112	114	118	113	115	114
01/05	108	113	113	105	109	112	106	109	110
02/05	96	100	99	100	105	105	102	106	108
03/05	89	92	97	95	99	100	97	100	102
04/05	81	82	91	89	92	91	90	94	96
01/06	64	91	72	75	78	76	80	82	84
02/06	63	50	57	62	69	63	68	75	73
03/06	Insuff. Data	71	54	59	67	61	57	74	67

Seeding Date	Southwest (Risk Area 1, 2, 3)			Northwest (Risk Area 7, 8, 9)			Interlake (Risk Area 15)		
	Wheat	Barley	Oats	Wheat	Barley	Oats	Wheat	Barley	Oats
<05	113	112	112	110	120	130			
01/05	106	107	111	106	113	116	113	111	115
02/05	99	102	108	101	107	113	105	112	116
03/05	95	96	102	95	102	106	97	107	118
04/05	90	90	97	90	95	98	88	91	97
01/06	79	76	85	82	87	89	74	79	80
02/06	68	64	73	75	79	76	66	76	60
03/06	62	61	59	64	69	71	Insuff. Data	63	51

Source: Manitoba Agricultural Services Corporation Seeded Acreage Report Records
Data represents reported seeding date and crop yields of fields >200 acres (1989-2008)

For a map illustrating MASC risk areas, check out the following link:
http://www.mmpp.com/mmpp.nsf/ym_2009_09_risk_areas.pdf

The seeding deadline for spring cereal crops is in June. Spring cereals such as all types of spring wheat, barley and oats are eligible for full coverage when the seeding deadline is met.

	Full Coverage	Extended Coverage
Barley	June 20th	none
Oats	June 20th	none
Wheat		
Feed	June 20th	none
Durum	June 20th	none
Extra Strong	June 20th	none
Hard White Spring	June 20th	none
Prairie Spring	June 20th	none
Red Spring	June 20th	none

For more information on seeding deadlines, to find the dollar values, and any restrictions that may apply to your crop coverage for the 2009 season, check with your local MASC agent or website: http://www.masc.mb.ca/masc.nsf/crop_summaries.html

Should Crop Type & Variety Characteristics Change When Planting Late?

If facing a late planting scenario, farmers will have to consider crop type and variety selection with a focus on maturity and disease package.

If seeding is delayed beyond late May, farmers should consider selecting an earlier maturing variety which may reduce the risk of damage from fall frost or excess weathering. The days to maturity presented below are for varieties listed in SEED MANITOBA 2009.

Crop Type	Days to Maturity
Spring Wheat	94-101
Oat	92-99
Barley	86-91

Increased disease pressure often associated with delayed planting needs to be considered by farmers when selecting a variety. Late-seeded oats will be more susceptible to barley yellow dwarf (BYD), a viral disease carried and spread by aphids, and crown rust. If your crop plans includes oats, select oat varieties with some resistance to those two diseases.

Late-planted (after June 1) fields of wheat may be more susceptible to fusarium head blight (FHB). A hard red spring wheat variety with some resistance to FHB should be used in preference to a susceptible variety. Late planted wheat is also more susceptible to leaf rust so farmers should try to avoid varieties that are susceptible to leaf rusts. Farmers may have to consider foliar fungicides applied at the correct stage if either rust is observed or conditions are conducive for fusarium head blight infection.

The SEED MANITOBA 2009 publication is an excellent source to assist farmers with selecting varieties. It is available online at the following link: <http://www.seedmb.ca/> or at your local GO Office.

Should Seeding Rate Change When Planting Cereals Late?

Farmers should increase their seeding rates to target the high end of the recommended plant population range when seeding is delayed in order to shorten the time to maturity and account for decreased tillering. To optimize yield potential, target plant populations should be:

Crop Type	Target Plant Population (plants per square foot)
Spring Wheat	23 – 28
Oat	18 – 23
Barley	22 - 25

To calculate optimum seeding rates using plant population, please refer to the following link: <http://www.gov.mb.ca/agriculture/crops/cropproduction/faa03s00.html>

Should Planting Depth Change When Planting Cereals Late?

Under most conditions, a planting depth of 1.5 to 2.5 inches is recommended. Planting deeper than 3 inches, especially when soils are cold (i.e., early season, cool season, no-till, etc.) can reduce emergence and plant vigour. However, as the planting season progresses and as soils warm and dry, ensure seed is placed firmly into moisture but no deeper than 3 inches.

Other Seeding Operation Considerations

Seeding when soils are too wet is not advised, regardless of the date, as it can lead to soil compaction which can decrease yield much more than planting a few days later. Yield reductions resulting from "mudding seed in" may be much greater than those resulting from a slight planting delay.

One final point for farmers to think about is their cost of production (COP). For example, if farmers calculated their COP using a 100 bushel per acre oat crop, they may need to rework their economics using lower projected yields. Using updated numbers may make decisions easier to make.

For more information, contact:

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