

LATE PLANTING OF GRAIN CORN

Corn planting in many parts of the province has been limited due to cool and wet conditions. As we move into the later part of May, should farmers still include grain corn in their 2009 cropping plans? If so, what other agronomic factors should be considered?

What is the Yield Potential for Late-Planted Corn?

When looking at Manitoba Agricultural Services Corporation (MASC) data, the yield potential for late-planted corn varies by area in the province. When looking at Risk Areas 12 and 32, grain corn crops planted the last week of May still yield 94% of normal (see table below). In other risk areas, yields range from 84 to 89% of normal yield potential for corn seeded the last week of May.

Tables 1: Relative yield (expressed as a %) of grain corn by seeding date and region.

Seeding Date	Red River Valley (Risk Area 12, 32)	Southeast (Risk Area 14)	South Central (Risk Area 5, 10, 11)	West Central (Risk Area 4, 6)
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01/05	108	106	104	102
02/05	101	104	101	99
03/05	97	92	97	107
04/05	94	84	89	84

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

Grain corn is eligible for full and extended coverage depending on corn growing region within the province and if seeding deadlines are met.

Corn	Full Coverage	Extended Coverage
Grain (map)	Area 1: June 6th, Areas 2, 3, 4: May 30th	Area 1: June 7th - June 11th, Areas 2, 3, 4: May 31st - June 4th

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

What Corn Maturities Should be Used When Planting Late?

Farmers can stay with their planned hybrids until the last week in May. However, if planting is delayed beyond May 27th, farmers could consider changing to a shorter maturing hybrid.

Another factor to consider is although a full season hybrid may still have a yield advantage over shorter season hybrids planted in late May, it could have significantly higher grain moisture at maturity than earlier maturing hybrids if it dries down slowly. Therefore, farmers should also consider the hybrid's dry down characteristics.

Should Planting Rate Change When Planting Corn Late?

In Manitoba, a plant population of 24,000 to 28,000 plants per acre is recommended. Optimal plant populations will vary with the choice of hybrid, management practices of the farmer, the growing environment and from field to field. In delayed planting situations, farmers should select a target plant population for the yield potential of each field.

Once their target plant population is chosen, farmers next need to consider the planting rates required to achieve their target. If soil conditions with late planting are better for emergence than those with earlier planting dates, slightly fewer seeds may be needed to obtain a given final plant population. In 2009 where soils are still cold and wet, a planting rate 10% higher than the desired final stand is recommended.

Should Planting Depth Change When Planting Corn Late?

Under most conditions, a planting depth of 1.5 to 2 inches is recommended. Planting deeper than 2 inches, especially when soils are cold (i.e., early season, cool season, no-till, etc.) can significantly delay emergence. However, as the planting season progresses and as soils warm and dry, ensure that the corn seed is placed firmly into moisture but no deeper than 3 inches.

Other Seeding Operation Considerations

Planting when soils are too wet is not advised, regardless of the date. Planting when the soil is wet will 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.

Farmers should also pay attention to planting speed. Higher planting speeds can cause seed misplacement (skips and doubles, variable seeding depth) which can result in uneven emergence and possible yield reductions. In corn production, uniform emergence is critical for maximizing yield potential.

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

For more information, contact:

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Sources:

- Considerations for Late-Planted Corn in Minnesota, Jeff Coulter, May 12, 2009, Minnesota Crop eNews, University of Minnesota Extension
- Planting Delays and Switching to Earlier Maturing Corn Hybrids, Peter Thomison, May 18, 2009, C.O.R.N Newsletter May 2009.