



TIPS FOR PRODUCING A SUCCESSFUL CORN CROP

Corn Hybrid Selection

Hybrid selection is a critical factor in producing a successful corn crop. Your Pioneer Hi-Bred sales representative can provide you with excellent information and a recommendation on which corn seed product to choose for your area. Below is a list of corn seed products, available in Western Canada, to choose from based on what your end use is for the crop.

Pioneer® brand Seed Products	Heat Units (CHUs)	Grain Corn	Silage Corn	Grazing Corn*
39F44	2000		✓	
P7005AM™	2000	✓	✓	
P7202AM™	2050	✓	✓	
P7211HR	2050	✓	✓	
P7213R	2050	✓	✓	
P7332R	2050	✓		
39D95	2175			✓
39B90	2200		✓	✓
P7632AM™	2225			✓
39V05	2250			✓
P7958AM™	2275			✓
P8581AM™	2575			✓

*Select the grazing corn seed products with a slightly later maturity (2200-2600 CHU) to help ensure kernels & stalks will stay palatable.

Target Seeding Rate

For Grain, Silage or Grazing Corn: target a seeding rate of 28 - 34,000 seeds/acre. If yield expectations are lower, aim for the lower end of the seeding rate range.

Seed Placement

- Uniform seed depth and firm seed-soil contact are important.

- Optimum seeding depth is 1.5 inches or deeper to hit the moisture.
- Accurate seed depth and spacing is critical for even corn emergence.
- Uneven corn stands are highly detrimental to optimizing yield.

Field Preparation

- Ideal soil temperature at seeding = 10° C (approximately May 1 – 18th depending on where you are located). However, if your soil is fit for planting before these dates our recommendation is to start planting as early as possible.
- Tillage followed by harrowing is recommended for ideal establishment. This provides both a good seedbed and increases emergence in warmer soil temperatures.

Good Fertility & Placement is Important

- Target 1lb of N for 1 bushel of grain corn produced.
- Starter fertilizer will enhance early growth – ideal placement is 2" over and 2" down due to the salt toxicity of N and K.
- Depending on soil type 5-8 lbs/ac of N + K₂O can be safely placed with corn seed.
- For all soil types – 20 lbs/ac of N + K₂O can be safely placed within 1" of the seed.
- 120 bu/ac grain crop (or a 15 tonne silage crop) requires: 120 N - 55 P - 120 K – 22 S lbs of nutrients**
- A corn crop will remove the following nutrients per ton of wet (65%) silage: 8 lbs N, 3.5 lbs P, 8 lbs K. Depending on a soil test sulphur at a rate of 20 lb/acre may be needed.



Weed Control in Corn

Corn is usually planted in wide rows. It has slow early growth and is a poor competitor with weeds, making early weed control very important in this crop. Yield can be lost if weeds are not controlled early. Corn can be seeded in narrow rows at 15-inch rows, which have shown an increase in yield and reduced weed pressure.

There are multiple methods for controlling weeds in corn, however, whatever method is chosen, timing is very important to minimize competition from weeds and to prevent crop injury. Check the herbicide label for more information.

Grain Dry Down

Grain moisture loss in corn is highly dependent on air temperature, air movement, relative humidity, and grain moisture content.

Corn dry down is highly related to:

- Hybrid characteristics, such as ear orientation, plant density, tightness and length of husks, and kernel hardness.
- Corn requires 30 growing degree days (GDDs) to remove one point of moisture from the grain kernels early in the drying process (30-25%), and 45 GDDs to remove one point of moisture late in the drying process (25-20%).
- Grain drying rates will vary between corn hybrids and environments. Ex: Corn dries better on a 10° C sunny day than on a 10° C rainy or cloudy day. Both days have the same number of heat units, but the additional energy provided by the radiant energy on a sunny day dramatically improves.

Harvest

Depending on your end use, harvesting corn can take place at a number of stages.

Grain Corn – Harvest timing has a major effect on grain quality in some growing environments. Harvesting corn at too high of moisture can result in severe kernel damage during threshing and drying. Grain quality experts suggest allowing corn to field dry *below 20%* moisture before harvesting. Allowing corn to field dry can also have negative consequences to both yield and quality if stalk or ear rot diseases or insect feeding damage are increasing. Key deciding factor for harvesting is to closely monitor both moisture and crop condition beginning at physiological maturity. **Our recommendation is to begin harvest when corn is around 22-25% moisture.**

Silage Corn – Growers should target a moisture level of 65-70% (half milk line), but harvesting can start as early as 72% moisture. Corn silage is relatively coarse, and adequate moisture will enhance compaction, and fermentation. A kernel processor is very beneficial at the lower moisture levels. Watch particle length closely.

For more information on Pioneer® brand products and services, contact your local Pioneer Hi-Bred sales representative.

To check out yield results in your area go to www.pioneer.com/yield



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