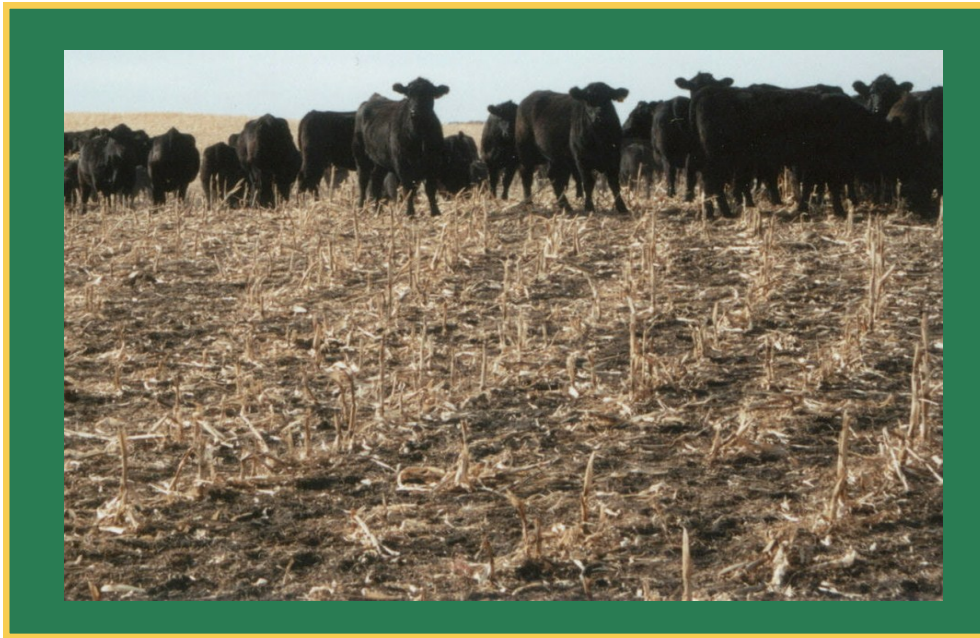


CANAMAIZE

TM

User Guide

Getting the most from your CanaMaize™ crop



PRODUCTS

CM440 Conventional CanaMaize™

Early maturing variety offers growers great grazing yield for high energy fall and winter grazing.



CM533 Roundup Ready® Corn 2 CanaMaize™

Early maturity, leafier plants, and herbicide tolerant for increased grazing yield

CALL 1-877-262-4046

PROPER CROP MANAGEMENT: FOR A SUCCESSFUL GRAZING CROP

Field Selection: An essential first step

Fields most suitable for grazing corn production have:

- Low trash from prior crop and low weed pressure
- Warm, well drained land with lighter soils which speed spring emergence
- Wind protection to reduce snow drifts and exposure to livestock to winter weather

Avoid

- Poorly drained fields
- Saline soils



Seeding Recommendations: For the highest quality CanaMaize™ forage

Seedbed Preparation

- Plant in soil over 10 degrees Celsius
- Exposed topsoil speeds soil warming which enhances seed emergence
- On zero till fields - high disturbance openers are recommended to allow soil warming
- If using Atrazine, pre-plant incorporation aids in soil warming

Fertility

- Recommended Phosphorus, Potassium (K), and Sulphur rates are 37, 82, and 15 lbs per acres respectively
- Western Canadian soils generally contain sufficient K
- Producers are encouraged to test soil
- Nitrogen requirements range between 75 and 95 lbs per acre depending on moisture in the area

Planting Equipment

- No specialized equipment is needed; air seeders, press drills, and hoe drills all work well
- Reduce speed to increase precision of seed placement

- When spacing is 6 inches or less, blocking runs to double the spacing helps to avoid bridging
- If using row planters, adjust seeding rate lower. Better seed placement achieved with row planters means higher emergence.

Planting Date and Planting Depth: For quick emergence and high seedling vigour

- Soil temperatures must be over 10 degrees Celsius
- Recommended seeding periods enhance emergence and improve overall plant digestibility and palatability
 - **For areas expecting to receive 2100 CHU or less - plant between May 12 to 16**
 - **For areas expecting to receive over 2100 CHU - plant between May 21 and June 10**
- Plant 3/4 to 1 1/2 inches deep, no deeper
- Planting too deep slows emergence and reduces seedling vigour. This may reduce yield by up to one third.

Planting Rate: To promote plant biomass development and improve weed control

For Conventional CM440

- Plant at 42 lbs/acre (80,000 plants/acre) One 25kg bag will seed 1.5 acres
- To reduce competition for water in drought areas recommend planting as low as 70,000 plants/acre (37 lbs/acre)

For CM533 Roundup Ready® Corn 2 CanaMaize™

- Plant at 26 lbs/acre (50,000 plants/acre) One 25 kg bag will seed 2.1 acres

EARLY SEASON WEED CONTROL ESSENTIAL FOR SUCCESS

- Corn seedlings are not competitive with weeds and volunteer cereals
- Delayed planting helps with weed control as many weeds will emerge before seeding
- For Conventional CanaMaize™ varieties, Atrazine can be incorporated pre-plant to provide economical, season-long control of grassy weeds
- Timely application of pre-emergence glyphosate is a low cost method of minimizing early season weed competition
- To avoid pre-emergence herbicide damage to your Conventional CanaMaize™ crop, scout fields carefully on the day of spraying to ensure no corn plants have emerged

Herbicide Recommendations for CanaMaize™ Corn

Herbicide	Product/Acre (L/Acre)	Weeds	When to Apply
RECOMMENDATIONS FOR CM440 CONVENTIONAL AND CM533 ROUNDUP READY® CORN 2			
2,4-D	0.42 (500g/L) 0.40 (600g/L) 0.32 (700g/L0)	Broadleaf (Listed - see product label)	Apply as an overall spray before corn is 6" (15cm) tall use a directed spray. Avoid making applications under hot/humid conditions onto corn.
Accent	13.5g/acre. Add non-ionic surfactant at 0.2L/10L of spray solution	Annual grasses, quack grass, wild oats, green or yellow foxtail	1 to 8 leaf stage (six visible collars), coleoptile (short, blunt leaf) is counted as the first leaf
Atrazine	0.85 to 1.25 L/acre	Broadleaf weeds (Listed, see label)	Pre or Post
Bromoxynil	Pardner: 0.40 to 0.48 L/acre Koril 235: 0.49 to 0.57 L/acre Bromotril: 0.49 to 0.57 L/acre Brotex: 0.49 to 0.57 L/acre	Small annual broadleaves (Listed, see label)	4 to 8 leaf
Dicamba	243 to 505 mL/acre	Broadleaf weeds (listed, see label)	Post up to 8" (20cm) tall corn. Apply no later than 2 weeks prior to tassel emergence and prior to 20" (50cm).
Dicamba & 2,4-D	117 mL/acre	Broadleaf weeds (listed, see label)	Post up to 8" (20cm) tall corn. Apply no later than 2 weeks prior to tassel emergence and prior to 20" (50cm).
Dual II Magnum	0.5 to 0.7 L/acre	Annual grasses (Listed, see on label)	Pre or Post
Ultim*	13.5 g/acre	Broadleaves	1 to 4 leaf
For use only in Manitoba			
RECOMMENDATIONS FOR CM533 ROUNDUP READY® CORN 2 ONLY			
Glyphosate	Equivalent to one litre	Non-selective weed control	Application suggestions on label



For best results, consult with your field agronomist or chemical dealer. These basic suggestions provided give acceptable rates of chemicals for early season corn and will probably be lower than suggestions for conventional field corn hybrids. Please consult your product label for surfactants, adjuvant and instructions of use. Ensure adequate water is used to reduce crop injury and improve efficacy.

Accent can be tank mixed with a broad leaf chemical above for better control. In a tank mix, reducing the broadleaf chemical to 3/4 of recommended rate will reduce crop injury and still provide the same broadleaf control.

CanaMaize™ Grazing Options

Graze it in a swath, from bales or leave the crop standing...It's your choice!

Grazing Tips

- Fields close to farm buildings with water and a good perimeter fence make monitoring of livestock in winter easier
- Shelterbelts or portable shelters protect livestock from harsh winter winds reducing energy consumption
- Access to supplemental feed may be necessary during adverse weather and while “cleaning up” the site
 - Always have water, salt, and minerals available for livestock

Benefits of Swath Grazing CanaMaize™

- Minimizes trampling
- Ensures a more balanced diet to livestock
- With plants swathed, as animals choose ears to eat first they also drag the entire plant into their mouth
- Without swathing, animals rip off the more palatable ear and move on to the next plant, leaving the stalk uneaten and possibly trampled
- Forage may be more accessible after snowfall
- Electric wire fences, used to control access to available feed, are easily set up and moved
- Studies at Brandon Agriculture and Agri-Food Canada, Research Centre show waste by trampling can be reduced by up to 65% by swath grazing versus standing crop grazing
- Swathing maximizes available biomass and keeps leaves from blowing away in the fall and winter wind



When to Swath

- We recommend swathing CanaMaize™ in late September **after frost** when plants have dried down
- Stalk diameter and protective leaves around ears slowly dry down and can lead to mould development if the crop is swathed too early
- Cooler temperatures discourage mould development
- If grazing crop before frost, swathing 5 to 7 days of feed in advance should ensure it is used up before the crop can spoil

Baling CanaMaize™



- Thin pliable stalks enable CanaMaize™ to be baled easily
- Untied bales can be left where they fall; livestock can be given controlled access using fences
- Bales can be moved strategically to one end of a field or into areas where manure is needed
- Both methods are effective and efficient with heavy snowfall, but involve more work and expense than swath or standing crop grazing
- Use normal bale probe testers to monitor moisture levels in bales:
 - Moisture levels in hardcore bales should be below 22%
 - Moisture levels can be up to 27% with soft core balers or use less pressure with a preservative
 - Bales with moisture levels over 27% can be wrapped and treated as bale silage

Standing Crop Grazing

- Grazing CanaMaize™ from a standing crop is simple and removes the need to swath or bale the crop
- Waste due to trampling and under utilization of the crop are more likely to occur than with swath or bale grazing
- Electric fences, used to control access to feed, are rolled and restrung to move livestock to new grazing areas
- Paths for running fences can be made with a snowmobile, four-wheeler, or tractor
- Mowing in fall eases fence placement

GRAZING MANAGEMENT AND CONTROLLED ACCESS TO CROP

Essential for best animal health and best crop utilization

Why it's important to control access to available crop

- Maximizes utilization of the feed
- Limits wastage of available forage crop
- Maintains consistent feed quality
- Allows monitoring of available crop

Be sure to avoid unrestricted access to feed

- Unrestricted access allows for animals to eat the ears first leaving only stalks for later consumption
- May result in grain overload and, later inadequate nutrition in grazing season

Controlling Access Using Portable Electric Fences

- Allows management of available crop
- Are easy to set up and move and are relatively inexpensive
- Are an effective way of controlling most livestock
- Permits division of available crop into 2-4 day feed supply
- Can be used whether grazing from the swath, from bales, or with the crop standing
- Run fences perpendicular to swathes and in standing crop to make use of insulating value of crop for livestock
- Using a cordless drill in frozen ground eases post placement

Grazing in Snow

- Even after heavy snowfall most swathed fields will blow open. With standing crop, snow is generally trapped in the outside rows and the centre of the field will be open
- Cattle and sheep are generally able to graze in a foot of snow. Cattle have been known to graze in up to two feet of snow.
- If the crop is swathed, livestock are able to dig down to find the corn in the snow. If grazing a standing crop it may get trampled and lost in the groundcover.
- Supplemental feed may be required for a few days during stormy weather when livestock do not want to graze
- Ice and crusted snow may form due to melting and re-freezing or due to wind. Ice and crusted snow can cut the noses and legs of the livestock as they dig for food
- If the crusting or snow cover is severe, animals may have to be removed and reintroduced when the snow conditions improve or after spring melt
- Ungrazed areas can be completely utilized later in winter or in spring
- Little waste or feed quality degradation occurs over the winter



Manure Management - An additional benefit

- Livestock deposit manure in the field and reduce build up in the corral or feedlot
- Manure deposits in the field are available to fertilize next year's crop
- Effective manure management over a number of seasons provides savings to producers by reducing or even eliminating the need to fertilize the crop
- Using portable shelters allows manure to be concentrated where it is needed most

Managing Crop Residue

- Residue levels vary with stocking rates, area and length of time individual paddocks are grazed, and amount of snow cover
- *To reduce residue and wastage:*
- Restrict livestock to small grazing areas so crop is fully utilized before moving to new area
- Proper stocking rates ensure minimal trampling while making efficient use of CanaMaize™ crop
- Swathing concentrates feeds, reduces trampling and minimizes waste
- Supplemental feed offered while cleaning up the field maintains animal health and keeps cattle on the field longer
- Returning livestock to the field in spring allows plant material buried in snow to be used. Leftover residue can be harrowed or raked into windrows and grazed again

CanaMaize™...It's Amazing!!!



Great Reasons to Graze CanaMaize™

- Highly palatable and digestible ears, stalks, and leaves
- Excellent crop utilization means less residue
- Early maturity - Requires as little as 1950 CHU
- Solid seeded - No special corn equipment required
- Reduce equipment and labour costs for harvest and manure management
- Easily swathed or baled for fall and winter grazing

For Technical Support or to Order Seed Contact

CANAMAIZE

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