

| Key Hybrids | Target Populations (,000/ac) | Intensive Management Score | Key Hybrids | Target Populations (,000/ac) | Intensive Management Score |
|-------------|------------------------------|----------------------------|---------------------------|------------------------------|----------------------------|
| E52V92 R | 33-36 | 3 | MZ 402X | 32-34 | 8 |
| E53G52 R | 34-36 | 3 | MZ 4040DBR | 32-35 | 4 |
| MZ 248X | 30-32 | 6 | MZ 4049SMX | 32-35 | 4 |
| E55T32 R | 32-34 | 6 | MZ 4151TRE | 32-35 | 4 |
| MZ 2699DBR | 32-36 | 6 | MZ 4280DBR | 31-33 | 8 |
| MZ 2812SMX | 33-36 | 8 | MZ 4368SMX | 34-37 | 8 |
| MZ 2982DBR | 33-36 | 7 | MZ 4577SMX | 32-36 | 8 |
| MZ 305X | 30-33 | 5 | MZ 4691DBR | 33-36 | 8 |
| E61H72 R | 32-36 | 5 | MZ 4623SMX | 32-35 | 4 |
| MZ 3117DBR | 33-36 | 5 | MZ 5088DBR | 33-34 | 3 |
| E63G62 R | 36-38 | 4 | MZ 5134DBR | 33-36 | 6 |
| MZ 3397SMX | 33-36 | 7 | Silage Populations | | |
| MZ 342X | 32-34 | 4 | VENZA R | 34-36 | - |
| MZ 3410DBR | 30-33 | 4 | MZ 3397SMX | 33-36 | 7 |
| E65G82 R | 32-34 | 4 | MZ 3877SMX | 32-35 | 6 |
| MZ 369 | 32-36 | 5 | MZ 4049SMX | 32-35 | 4 |
| MZ 3690DBR | 32-36 | 5 | MZ 4577SMX | 33-36 | 8 |
| E66K42 R | 32-36 | TBD | LFG 8810R | 27-32 | - |
| MZ 3818DBR | 30-33 | 7 | LF 8844SMX | 30-32 | - |
| MZ 3877SMX | 32-35 | 5 | LF 8890SMX | 30-32 | - |
| E67H95 | 34-36 | 3 | LFG 9701R | 28-32 | |
| E67H92 R | 34-36 | 3 | LF 0284SMX | 30-32 | - |

Note: For additional hybrid guidance refer to the Maizex Seed Guide or visit www.maizex.com

| Relative Maturity Days Compared to Ontario Crop Heat Units | | | |
|--|---------------|---------|---------------|
| RM Days | CHU (approx.) | RM Days | CHU (approx.) |
| 80 | 2400 | 96 | 2900 |
| 84 | 2500 | 100 | 3000 |
| 86 | 2600 | 103 | 3100 |
| 89 | 2700 | 107 | 3200 |
| 93 | 2800 | 111 | 3300 |

Example: MZ4040DBR - add 60 to **40** to get 100 Days Relative Maturity
100 Days RM = 3000 CHU

| Estimating Seed Count or Corn Plant Populations (Row Length Required for 1/1000 acre) | | | |
|--|------------|-------------|-------------|
| Row Spacing | Row Length | Row Spacing | Row Length |
| 38 inches | 13 ft 9 in | 22 inches | 23 ft 9 in |
| 36 inches | 14 ft 6 in | 20 inches | 26 ft 2 in |
| 30 inches | 17 ft 5 in | 15 inches | 34 ft 10 in |

| Foliar Fungicides (Target: Ear Rots) Fusarium and Gibberella | | |
|--|-----------|----------------------|
| Product | Rate | Pre-harvest Interval |
| Caramba | 404 ml/ac | 20 days |
| Proline 480 SC | 170 ml/ac | 20 days |
| Miravis Neo | 500 ml/ac | 30 days |

Note: These products will provide “suppression only” of the ear rot. Be sure to apply in a window where silks are emerged from the ear but before any silk “browning” has occurred.

| Foliar Insecticides (Target: Western Bean Cutworm) | | |
|--|---------------|----------------------|
| Product | Rate | Pre-harvest Interval |
| Coragen | 101-151 ml/ac | 14 days |
| Decis 5.0 EC | 100-120 ml/ac | 1 day |
| Matador 120E | 34-76 ml/ac | 21 days |
| Voliam Express | 200 ml/ac | 21 days |
| Delegate | 50-85 g/ac | 28 days |

Herbicide Strategies for Weed Control in Corn

| Herbicide Treatments and Timings | Notes |
|---|---|
| Premium Set-up Programs: <i>Intended for a two-pass system where soil applied herbicides provide early season weed control and where glyphosate tolerant corn allows for a post-emergence treatment of glyphosate to clean-up escapes and late emerging weeds.</i> | |
| 1) Lumax EZ (1.36 L/ac) (Pre) + Glyphosate (Post) (1.0 L/ac) | Set-up rate for early season weed control only. |
| 2) *Converge Flexx (89 ml/ac) + Converge 480 (440 ml/ac) (Pre) + Glyphosate (Post) (1.0 L/ac) | Not for sandy soil or sub-2% O.M. |
| 3) | |
| 4) | |
| Economy Set-up Programs: <i>Same approach as above but with a lower cost pre-emerge approach for a more limited range of early season weed control.</i> | |
| 5) Xtendimax (680 ml/ac)(Pre) + Glyphosate (1L/ac) (Post) | See all drift mitigation strategies. No residual grass control. |
| 6) *Primextra II Magnum (1.0 L/ac) (Pre) + Glyphosate (1 L/ac) (Post) | Rate will be too low for nutsedge or heavy grass infestations |
| 7) | |
| 8) | |
| Pre-Emerge Programs: <i>These programs are designed for maximum early season control with herbicide packages that have residual control for both broad leaf and grasses. Suited for conventional, non-herbicide tolerant corn.</i> | |
| 9) Integrity (440 ml/ac) (Pre) | Do not use Integrity on sandy soils with less than 2 % organic matter. |
| 10) Acuron (1.96 L/ac) (Pre) | Timing! Will not control grassy weeds that have reached the 2 leaf stage. |
| 11) | |
| 12) | |
| Post-Emerge Programs: <i>These programs focus on post emerge applications of herbicides to control emerged weeds and in some cases provide residual control at the soil surface.</i> | |
| 13) Marksman (1.0 L/ac) + Glyphosate (1.0 L/ac) (Post) | Timing is critical (i.e. 3 leaf corn, do not let crop and weeds compete). |
| 14) Halex GT (1.7 l/acre) + Aatrex 480 (235 ml/ac) (Post) | Only for glyphosate tolerant corn. Apply up to 6 th leaf stage corn. |
| 15) | |
| 16) | |
| Additional Notes: <i>*Does not provide adequate control of glyphosate resistant Canada fleabane. Be sure to check out the PestManager App.</i> | |
| | |
| Attention: The herbicide options above are included only as examples of different approaches to weed control. Please consult OMAFRA Publication 75 and your local herbicide supplier for more details. Always follow label instructions. | |
| Mixing Order - W.A.M.L.E.G.S. — Mixing order for tank mixes. <i>Concept: BASF (When in doubt consult the label)</i> | |
| W Wettable powders, flowable (DC, DF, DG, DS, F, DF, Gr, SG, SP) > A Agitate, Anti-flowing compounds, buffers > M Microcapsule suspension (ME) > L Liquid and soluble (SN, SC, Li, Su) > E Emulsifiable concentrates (EC) > G High load Glyphosates > S Surfactants. | |
| Corn Leaf Staging: | |
| Method 1) Count a leaf when it is long enough to droop over and the tip no longer points vertical (used in OMAFRA Pub. 75). | |
| Method 2) Count a leaf only when it has fully emerged and the “collar” at the bottom of the leaf is visible (often referred to as “V” stages). | |
| Method 3) Count all corn leaves when the tip is visible and out of the whorl (frequently used in university reports). | |

| Corn Grain Yield (bu/acre) (15.5%) | P Removal P ₂ O ₅ lbs/ac | K Removal K ₂ O lbs/ac |
|--|--|-----------------------------------|
| 150 | 53 | 38 |
| 175 | 61 | 44 |
| 200 | 70 | 50 |
| 225 | 79 | 56 |
| 250 | 88 | 63 |
| | | |
| Corn Silage Yield (tonne/ac) (65%) | P Removal P ₂ O ₅ lbs/ac | K Removal K ₂ O lbs/ac |
| 18 | 65 | 153 |
| 22 | 80 | 188 |
| 26 | 95 | 222 |
| 30 | 109 | 256 |
| 34 | 123 | 290 |
| Source: IPNI Nutrient Removal Calculator | | |

| Soil Test P (PPM) (Sodium Bicarb.) | P Recommended (P ₂ O ₅) (lbs/acre) |
|------------------------------------|---|
| 6-7 | 80 |
| 8-9 | 62 |
| 10-12 | 44 |
| 13-15 | 18 |
| 16-20 | 18 |
| 21-30 | 18 |
| 31 - over | 0 |

Recent research suggests that a base line P soil test of 20 PPM contributes to higher and more stable yields. P fertilizer placement close to the seed can often stimulate early growth and increased yields across a wide range of P soil tests. (Rec. Source: OMAFRA 811)

| Soil Test K (PPM) (Ammonium Acetate) | K Recommended (K ₂ O) (lbs/acre) |
|--------------------------------------|---|
| 16-30 | 141 |
| 31-45 | 123 |
| 46-60 | 97 |
| 61-80 | 70 |
| 81-100 | 44 |
| 101-120 | 26 |
| 121 - over | 0 |

Recent research suggests that a base line K soil test of 120 PPM contributes to higher and more stable yields. Below 90 PPM K management that includes both broadcast and banded sources of K can improve yields. (Rec. Source OMAFRA 811)

| Safe Rates for Banded Fertilizer in Corn (2 inch x 2 inch band) (Source: OMAFRA 811) | | |
|--|-----------|----------|
| Fertilizer Nutrient | 30" rows | 20" rows |
| | lbs./acre | |
| N as Urea | 35 | 53 |
| Other N sources | 46 | 69 |
| N, K and S combined when urea is the N source | 70 | 105 |
| N, K and S combined when N source is not urea | 103 | 154 |

Examples: (based on 30" rows)
Based on the above guidelines no more than 76 lbs. of urea (35 lbs. N/ac; max) can be safely banded in a 2x2 configuration.
Fertilizer blend of 19-19-19 (when made with urea) would have a maximum safe rate of 184 lbs. per ace (35 N + 35 K = 70 lbs./ac; max).

| Nitrogen Rate Considerations. | | | | | | | |
|--|---------|------------|-----------|------------|------------|-------------------|----------------------------------|
| Base Price Assumptions: Corn = \$4.85/ bu; Nitrogen: = \$.50/lb of N | | | | | | | |
| | Field A | Field B | Field C | Field D | Field E | Field F | Field G Ontario East of Kingston |
| Yield Expectation | 205 | 180 | 220 | 220 | 205 | 205 | 205 |
| Soil Texture | Loam | Loamy Sand | Clay loam | Clay loam | Loam | Loam | Clay loam |
| Previous Crop | Soys | Soys | Soys | Grain Corn | Red Clover | Wheat (Straw Off) | Soybeans |
| CHU Area | 2950 | 2950 | 2950 | 2950 | 2950 | 2950 | 2950 |
| Planting Time Total | 160 | 154 | 179 | 221 | 115 | 175 | 147 |
| Sidedress Total (60 lbs. N applied in Planting Window) | 80 | 94 | 95 | 129 | 44 | 92 | 87 |

Notes: The above information is a guide; for assessing individual fields with the ability to change all the descriptions for those fields download the Maizex N Tracker from www.maizex.com. Soil nitrates taken in the June 10-20 window can also provide direction as to the amount of side dress or top dress nitrogen required in a given season. These values can also be entered into the N Tracker.