

Sweet Corn

All Weeds

Weed control methods in sweet corn vary by production system and variety.

For sweet corn that is no-till, direct-seeded into a killed crop (such as after a rye cover crop, or wheat) growers often use a burndown herbicide with a preemergence herbicide. For sweet corn direct-seeded into tilled soil, growers often combine one or more preemergence herbicides at planting with one or more cultivations. Sometimes, growers also apply a preemergence herbicide after the last cultivation to improve control of late-emerging weeds. Small, emerged weeds in both systems can be controlled with selective postemergence herbicides and/or shielded applications of nonselective herbicides.

For early sweet corn direct-seeded under vented plastic row cover, some herbicides are applied before laying the plastic to prevent germinating weeds along with the early corn. But, without good incorporation or irrigation for activation these rows will usually need extensive clean up after the row-cover comes off.

There are sweet corn varieties that are tolerant of glyphosate (RoundUp-Ready), glufosinate (Liberty-Link), or sethoxydim (Poast-Protected) applications over-the-top of the crop. Confirm the herbicide tolerance traits of your sweet corn before making an over-the-top herbicide application.

For specific weeds controlled by each herbicide, check the Relative Effectiveness of Herbicides for Vegetable Crops table.

Rates provided in the recommendations below are given for overall coverage. For a banded treatment, reduce amounts according to the portion of acre treated.

Non-Pesticide

Non-Pesticide Options

A stale seedbed can be prepared prior to transplanting with flame weeding or very shallow cultivation to control emerged weeds, instead of herbicides. Later plantings of sweet corn lend themselves to this stale seedbed practice because they are often planted after common weeds have emerged in tilled soil.




Uniform and close plant spacing in the row promotes rapid canopy cover, and fresh market growers can keep larger between-row spacing clean with between-row cultivation tools for hand-pickers or mechanical harvesters. Rolling cultivators on wide tool-bars offer effective, high-speed between-row cultivation.

Pesticide

2,4-D amine products | 2,4-D |   4L amine formulations at 0.5-1.5 pts. per acre.

Use lower rates on annual weeds and higher rates on perennial weeds in the bud stage. Use drop nozzles if corn is more than 8 inches tall. Do not apply to open whorls or from 2 week before tasseling through harvest. Avoid drift onto other vegetable crops. Can cause severe injury to some varieties.

REI: 48-hour. PHI: 45-day. HRAC 04 .

Accent Q | nicosulfuron |    0.45-0.90 oz. per acre.

Use COC (1% v/v) or NIS (0.25% v/v). Apply broadcast or with drop nozzles on corn up to 12 inches tall or up through 5 leaf collars. For corn 12-18 inches tall use drop nozzles. Do not apply to corn more than 18 inches tall or showing 6 leaf collars or more. Cultivars differ in sensitivity to this herbicide; get information on cultivars prior to use. Not recommended for use on corn previously treated with Counter or Thimet insecticides.

REI: 4-hour. HRAC 02 .

acetochlor + atrazine products | acetochlor , atrazine |   




Apply 2.2-3.4 qts. per acre Breakfree ATZ, 1.6 to 3 qts. per acre Breakfree ATZ Light or Keystone LA, 2.9-3.7 qts. per acre Degree Xtra, 2.5-5 qts. per acre FulTime, 1.8-3.3 qts. per acre Harness Xtra, 1.4-3 qts. per acre Harness Extra 5.6L, or 2.2-3.4 qts. per acre Keystone. Do not apply postemergence. Use lower rates on coarse soils with low organic matter. Apply before planting and incorporate, or apply after planting before sweet corn emerges. Do not apply to light textured soils specified in the label where ground water is at 30 ft. or less.

REI: 12-hour. HRAC 15 . HRAC 05 . RUP.

acetochlor products | acetochlor |   

Apply 1.5-3 pts. per acre for Harness 7E, 1.5-3.75 pts. per acre for Surpass 6.4EC, or 2-3 pts. per acre TopNotch 3.2M. Do not apply postemergence. Use lower rates on coarse soils with low organic matter. Apply before planting and incorporate, or apply after planting but before sweet corn emerges. May be mixed with atrazine or simazine. See label for details. Do not apply to light textured soils specified in the label where ground water is at 30 ft. or less.

REI: 12-hour. HRAC 15 .

Acuron | atrazine , mesotrione , s-metolachlor , bicyclopyrone |    2.5 qts. per acre on soil with less than 3% organic matter; 3 qts. per acre on soil with more than 3% organic matter.

For control of most broadleaf and grass weeds. Control may be reduced on soils with >10% organic matter. Do not apply after sweet corn has emerged or severe crop injury may occur. 18-month replant restriction for all crops except corn types (no restrictions); small grains (4 months); dry beans, potato, and soybean (10 months). Contains atrazine so state restrictions for atrazine apply.

REI: 24-hour. PHI: 45-day for grazing or forage feeding, 60-day for forage harvest. HRAC 05 . HRAC 27 . HRAC 15 . HRAC 27 . RUP.

Aim EC | carfentrazone |   0.5-2.0 fl. oz. per acre.

Apply to actively growing weeds up to 4 in. tall from prior to planting up to V-14 stage. To reduce injury, use drop nozzles to make applications in corn from V8-V14 stages or apply with a hooded-sprayer to minimize application to the whorl. Add 0.5 pt. NIS per 25 gal. of spray solution (0.25% v/v). Do not exceed 2 fl. oz. per acre per season. For burndown applications, consider tank-mixing with an additional broad-spectrum herbicide such as glyphosate.

REI: 12-hour. HRAC 14 .

Anthem | pyroxasulfone , fluthiacet-methyl |     2.5-6.5 fl. oz. per acre.

Apply 4-13 fl. oz. of Anthem or 2-6.5 fl. oz. Anthem Maxx per acre. Adjust rate based on soil organic matter and texture, and pre or postemergence use, see label. Preplant surface applications are not recommended for sweet corn. Apply post from crop emergence through V4 growth stage. Add COC/MSO (1% v/v) or NIS (0.25% v/v) for best activity. Before applying to corn, confirm that your line has Anthem tolerance with your seed company or supplier to avoid injury to sensitive lines. Avoid postemergence application when crop foliage is wet or prior to or after a rain because a crop injury can occur. However, the crop will recover. Do not apply if crop is under stress and do not irrigate within 4 hours of a postemergence application.

REI: 12-hour. PHI: 40-day. HRAC 15 . HRAC 14 .

Anthem ATZ | atrazine , pyroxasulfone , fluthiacet-methyl |     1.5-4 pts. per acre.

Adjust rate based on soil organic matter and texture, and pre or postemergence use, see label. Preplant surface applications are not recommended for sweet corn. Apply post from crop emergence through V4 growth stage. Add COC/MSU (1% v/v) or NIS (0.25% v/v).. Before applying to corn, confirm that your line has Anthem selectivity with your seed company or supplier to avoid injury to sensitive lines. Avoid postemergence application when crop foliage is wet or prior to or after a rain because a crop response can occur. However, the crop will recover. Do not apply if crop is under stress and do not irrigate within 4 hours of a postemergence application.

REI: 12-hour. PHI: 45-day. HRAC 05 . HRAC 15 . HRAC 14 . RUP.

Anthem Flex | carfentrazone , pyroxasulfone |    

Preplant or pre-emergence: Apply 2.75-7.3 fl. oz. per acre from 14 days preplant to spike stage corn. *After corn emergence:* Apply 2.25-6.4 fl. oz. per acre through the V-4 stage. Use higher rates on finer textured soil and soil with greater organic matter. Within each soil texture-organic matter category, use a higher rate on soils with high-residue or higher weed pressure. See label for maximum rates per application and year based on soil texture. Do not apply on coarse textured soil or medium-textured soil with less than 2% organic matter.



REI: 12-hour. PHI: 3-day. HRAC 14 . HRAC 15 .

atrazine products | atrazine |    

Apply 4L formulations at 1-2 qts. per acre and 90W formulations at 1.1-2.2 lbs. per acre. To control small, emerged broadleaves, include COC (1% v/v). Apply before planting and incorporate, after planting but before corn emerges, or after emergence but before corn is 12 inches tall.

Many atrazine products are available. See labels for details.

REI: 12-hour. HRAC 05 . RUP.

Basagran | bentazon |   Use 4L formulations at 1.5-2 pt. per acre and 5L formulations at 1.2 to 1.6 pts. per acre.




Add COC (1% v/v). Apply to small weeds. Also controls nutsedge. Do not apply to corn that is stressed because injury may result. Combine with atrazine to broaden weed control spectrum. Do not exceed 2 lbs. of bentazon per acre, per season.

REI: 48-hour. HRAC 06 .

Cadet | fluthiacet-methyl |   0.6-0.9 fl. oz. per acre.

For processing sweet corn only. Apply from preplant until corn reaches 48 inches tall, but before tasseling. Controls velvetleaf and several other broadleaves. May be tank-mixed with labeled postemergence herbicides. Add COC (1% v/v) or NIS (0.25% v/v). Do not exceed 1.25 fl. oz. per acre per year.

REI: 12-hour. PHI: 40-day. HRAC 14 .

Callisto | mesotrione |    6-7.7 fl. oz. per acre preemergence, 3 fl. oz. per acre postemergence.

Some varieties may be severely injured. If weeds are present, add COC (1% v/v) or NIS (0.25% v/v). Do not add UAN or AMS when applying to emerged sweet corn. Adding atrazine at 0.25-0.5 lb. of a.i. per acre for post applications, or 0.75 lb. a.i. per acre for pre applications will improve weed control. Note organophosphate insecticide precautions. Do not exceed 0.24 lb. mesotrione per acre per year (7.7 fl. oz. Callisto) from all sources.

REI: 12-hour. PHI: 45-day. HRAC 27 .

Callisto Xtra | mesotrione , atrazine |   20-24 fl. oz. per acre.

Apply with COC (1% v/v) or NIS (0.25% v/v). Apply after corn emerges and before corn is 12 inches tall. Also controls large crabgrass. Cultivars differ in sensitivity to this herbicide; get information on cultivars prior to use. Do not use on corn previously treated with Counter insecticide, or within 7 days of treatment with any organophosphate or carbamate insecticide. Do not exceed one application per year.

REI: 12-hour. PHI: 45-day. HRAC 27 . HRAC 05 . RUP.

clopyralid products | clopyralid |  

Use Spur (40.9%) at 0.33-0.66 pts per acre on fresh or processing sweet corn. Use Stinger (40.9%) at 0.33-0.66 pts per acre on processing sweet corn. Use Stinger HL (60.22%) on at 0.2-0.4 pts per acre on processing sweet corn. Spray on actively growing weeds before corn is 18 inches tall. Controls composites and nightshade. Wait 21 days between applications. Do not exceed 0.66 pts. per acre of 3 lbs. per gal. formulations or 0.4 pts. per acre of 5 lbs. per gal. formulations.

REI: 12-hour. PHI: 30-day for ears, 60-day for stover. HRAC 04 .

dimethenamid-p plus atrazine products | dimethenamid-p , atrazine |   




Apply Commit ATZ at 2.5-4.6 pts. per acre, Commit ATZ Lite at 2.0 to 3.5 pts. per acre, or Guardsman Max at 2.5-4.6 pts. per acre. Use low rates on coarse soils with low organic matter. Apply before planting and incorporate, or after planting before corn emerges, or after emergence before corn is 12 inches tall. Rates may be reduced if corn will be cultivated or full-season control is not needed. If multiple applications are made, do not exceed maximum rate per acre per year.

REI: 12-hour. PHI: 50-day. HRAC 15 . HRAC 05 . RUP.

Double Header | acetochlor , mesotrione |    1.4-2.4 qt. per acre.




Apply to the soil surface up to 28 days prior to planting or after planting but before crop emergence or apply and incorporate 2 inches deep within 14 days prior to planting. Use lower rates for coarse textured soil and soils with low organic matter. Although other acetochlor + mesotrione products are available, not all are registered for use in sweet corn. See labels.

REI: 12-hour. PHI: 45-day. HRAC 15 . HRAC 27 .

Dual Magnum | s-metolachlor |    1-2 pts. per acre.

Use lower rate on coarse soils. Apply before planting and incorporate, or apply after planting but before corn emerges. May also be applied as a directed spray between rows when corn is 5-40 inches tall. Incorporate to control nutsedge. May be mixed with atrazine, see label for details. Do not exceed 3.9 pts. per acre per year. Dual II Magnum contains a safener and may used instead of Dual Magnum to limit crop injury under cool soil conditions.




REI: 24-hour. PHI: 30-day. HRAC 15 .

glyphosate products | glyphosate |    0.375-3.75 lbs. acid equivalent (ae) per acre.

Divide lb. acid equivalent (ae) per acre target rate by lb. ae per gal and then multiply by 4. For example, for RoundUp ULTRA at the high rate, (3.75 lb ae per acre / 3 lb ae per gal) * 4 = 5 qt. per acre of actual product. Broadcast before or after planting but before crop emerges, or apply up to 0.75 lb. acid equivalent between crop rows with wipers, hooded or shielded sprayers after corn is 12 inches tall. Use low rate for annuals and higher rates for perennials. See label for suggested application volume and adjuvants.

For **RoundUp-Ready sweet corn only** - will kill other varieties: postemergence applications may be made over-the-top of corn through the 8 leaf-collar stage (V-8) or until corn is 30 inches tall. Drop nozzles are recommended if corn is more than 24 inches tall, and must be used if corn is more than 30 inches tall to prevent spraying into whorls. Do not apply to corn more than 30 inches tall or if it has reached the reproductive stage. See product label for maximum use rates.

REI: 4-hour to 12-hour. PHI: 7-day. HRAC 9 .

Impact | topramezone |    0.5-2 fl. oz. per acre.

Add MSO or high surfactant methylated oil concentrate (HSMOC) and urea ammonium nitrate (UAN) or spray grade ammonium sulfate (AMS). See label for additive rates.

REI: 12-hour. PHI: 45-day. HRAC 27 .

Laudis | tembotrione |    3 oz. per acre.

Apply with MSO (1% v/v) plus 8.5 lbs. of AMS per 100 gals. of spray solution. COC is less efficacious than MSO but can be used instead of MSO when broadleaves are the main target and conditions for control are excellent. Tank-mixing with atrazine will improve efficacy and spectrum of weed species controlled.

REI: 12-hour. PHI: 45-day. HRAC 27 .

Lexar EZ | s-metolachlor , atrazine , mesotrione |   

Use Lexar EZ at 3 or 3.5 qts. per acre or Lumax EZ at 2.7 or 3.25 qts. per acre. Use the lower rate on soils with organic matter less than 3% and the higher rate on soils with organic matter greater than 3%. Apply up to 14 days before planting or apply after planting but before corn emerges. Can be combined with glyphosate or paraquat products to control emerged weeds.

REI: 24-hour. PHI: 60-day. HRAC 15 . HRAC 05 . HRAC 27 . RUP.

Liberty 280 SL | glufosinate |   

Apply 29-43 fl. oz. per acre as a burndown application prior to planting.

For **Liberty-Link sweet corn varieties only** - will kill other varieties: apply 22 fl. oz. per acre postemergence.

Do not exceed 2 postemergence applications per season. Applications must be at least 7 days apart.

Add AMS at 3 lb. per acre.

Also available as Interline herbicide.

REI: 12-hour. PHI: 50-day. HRAC 10 .

Outlook | dimethenamid-p |    12-21 fl. oz. per acre.

Use lower rate on coarse soils low in organic matter. Apply before planting and incorporate, or after planting before corn emerges, or after emergence before corn is 12 inches tall. Apply preemergence for best activity. Do not exceed 21 fl. oz. of Commit or 24 fl. oz. of Outlook per acre per year.

REI: 12-hour. PHI: 50-day. HRAC 15 .

paraquat products | paraquat |   

Use 2-4 pt. per acre of 2SL formulation or 1.3-2.7 pt. per acre of 3SL formulation. Add COC (1% v/v) or NIS (0.25% v/v). Apply before or after seeding but before crop emerges. Or apply after crop emergence and use a hooded or shielded sprayers to prevent spray from contacting crop. Or wait until corn is more than 10 inches tall and apply between rows using directed spray that reaches no higher than 3 inches up the corn stalk. Corn plants contacted by spray may be injured or killed. Certified applicators must successfully complete an EPA-approved training program before mixing, loading, and/or applying paraquat.

REI: 12 to 24-hour. HRAC 22 . RUP.

pendimethalin products | pendimethalin |   




Apply 3.3 lb. per gallon formulations at 1.8-4.8 pts. per acre and 3.8 lb. a.i. per gallon formulations at 2-4 pts. per acre. Use low rates on coarse soils with low organic matter. Apply after planting but before corn emerges, or after emergence until corn is 20-24 in. tall or shows 8 leaf collars. Plant corn at least 1.5 inches deep and make sure seed is well covered. Use drop nozzles and directed spray for post applications, if necessary, to get spray to soil. Do not exceed one application per season.

REI: 24-hour. HRAC 03 .

Poast | sethoxydim |   0.75-1.5 pt. per acre.

Poast Protected sweet corn varieties only - will kill other varieties. Add COC/MSO (1% v/v). UAN or AMS are optional, see label. Allow at least 10 days between repeated applications. Do not exceed 3 pt. per acre per growing season. Poast Plus may be used instead at 1.5-2.25 pt. per acre, not to exceed 4.5 pt. per acre per growing season.

REI: 12-hour. PHI: 30-day. HRAC 01 .

Revulin Q | nicosulfuron , mesotrione |    3.4 to 4.0 oz. per acre.

Use with NIS after emergence until 12 inches tall or 5 leaf-collar stage. Use drop nozzles for corn between 12 and 18 inches tall. Do not apply to sweet corn taller than 18 inches or at 6 leaf-collar stage or later. Do not use AMS or UAN adjuvants. Because of the adjuvant restrictions, better results will be obtained when applied to smaller weeds. Can use COC (1% v/v) under dry conditions to improve weed control, but may increase crop injury. Possible hybrid sensitivity.

REI: 12-hour. PHI: 45-day. HRAC 02 . HRAC 27 .

s-metolachlor plus atrazine products | atrazine , s-metolachlor |   

Apply Bicep II Magnum, Bicep II Magnum FC, Cinch ATZ, and Charger Max ATZ at 1.3-2.6 qts. per acre OR apply Bicep Lite II Magnum, Cinch ATZ Lite, or Charger Max ATZ Lite at 0.9-2.2 qts. per acre. Use low rates on coarse soils with low organic matter. Apply before planting and incorporate, or after planting before corn emerges, or after emergence before corn is 5 inches tall.

REI: 24-hour. PHI: 30-day. HRAC 05 . HRAC 15 . RUP.

Sandea | halosulfuron |    2/3-1 oz. per acre.




Apply over-the-top or with drop nozzles from the spike through layby stages. Has some soil residual activity. A second application of 2/3 oz. per acre may be made only with drop nozzles aimed to avoid application into whorls. Do not exceed 2 applications per 12-month period. Additional halosulfuron products are available. See labels for details.

REI: 12-hour. PHI: 30-day. HRAC 02 .

Shieldex | tolpyralate |    1-1.35 fl. oz. per acre.

Apply as a broadcast spray over corn when weeds are small. Apply to corn up to 20 inches tall and showing no more than 6 leaf collars. Use higher rate for larger weeds. Add COC (1% v/v) or NIS (0.25% v/v). Do not exceed 2 applications per year or 2.7 fl. oz. per acre per year.

REI: 12-hour. PHI: 35-day. HRAC 27 .

Sinate | topramezone , glufosinate |    21 fl. oz. per acre.




Apply to LibertyLink sweetcorn only from emergence to V6 stage of growth. Do not apply more than once per year. Add COC/MSO (1% v/v) or HSMOC (0.5% v/v) and spray grade ammonium sulfate (AMS). See label for additive rates.

REI: 12-hour. PHI: 50-day for ears, 55-day for stover. HRAC 27 . HRAC 10 .

Starane Ultra | fluroxypyr |   0.4 pt. per acre.

Apply broadcast or as a directed spray to corn that has up to 4 fully exposed leaf collars. Use directed spray when corn is beyond the 4-leaf collar stage. For volunteer potato, can apply preplant to emerged potato followed by a second application postemergence to emerged potato.

REI: 24-hour. PHI: 31-day. HRAC 04 .

Zidua SC | pyroxasulfone |    1.75-6.5 fl. oz. per acre of SC formulations, 1.0-4.0 oz. per acre of WDG formulation.

Apply before or after planting and before crop emergence, or at spiking up to V4 (4 leaf collars visible). May be incorporated. Will not control emerged weeds. May be tank-mixed or applied sequentially with many other products. Seed at least 1 inch deep.

REI: 12-hour. PHI: 37-day. HRAC 15 .

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