

# Sweet corn

Pea

Pepper

Potato

Pumpkin & squash

Sweet corn

Table beet

Tomato

Since sweet corn is harvested in the immature or milk stage, it requires a shorter growing season than other types of corn. Nonetheless, it is a warm weather crop. Average temperatures of 65–70°F, with a minimum of 50°F, are required during June, July, and August. On the other hand, high temperatures above 80°F hasten maturity and often result in inferior quality. Temperature also greatly affects the length of time that sweet corn kernels remain sweet and tender. At high temperatures, they pass the best eating stage quickly.

The relationship of growth and maturity to temperature may be expressed more accurately in terms of degree days than calendar days. Since sweet corn does not grow at temperatures below 50°F, daily degree days are computed by subtracting 50°F from the average daily temperature. Scheduling of planting and harvest for nearly 75% of the processing sweet corn in the nation is based on degree days computed by this method or modifications. For more information, see “Calculating Degree Days” on page 14.

Sweet corn does best where annual rainfall is 30 inches or more, and April through September rainfall is 20 inches or more. The crop is especially susceptible to lack of moisture and to hot dry winds during the reproductive period. After the appearance of tassels the plants need rain every week. For this reason supplemental irrigation is increasingly important in the production of processing sweet corn. The water added may increase snapped weight by 0.5 t/a per inch of irrigation water, resulting in yields of 10–12 t/a in the humid North Central states.

Most sweet corn varieties were based on the sugary gene and had yellow kernels. Sugary hybrids have between 10% and 15% sugar at harvest time. Recently, new hybrids based on other genes have become available. The most important of these new gene types are the supersweet types based on the *shrunkn-2* gene and the SE types based on the *sugary enhancer* gene. Both of these genes result

in elevated sugar levels of 25–35% at harvest. The supersweet types also convert sugar to starch more slowly resulting in a longer harvest period and longer shelf life. However, the pericarp of the supersweets will toughen with increased maturity resulting in decreased quality just as it does in the other types.

White kernel and bicolor (yellow and white kernels) hybrids are also becoming increasingly common. While the kernel color does not affect taste they may be of interest to consumers due to their attractiveness or novelty.

Supersweets must be isolated from sugary enhancer and sugary hybrids. To obtain the best results, sugary enhancer hybrids should be isolated from sugary hybrids and white hybrids should be isolated from bicolor and yellow. Isolation may be either in space or time. Different gene types should be grown at least 100 feet apart or they should flower at least 10 days apart.

## Planting

**Rows:** 30–40 inches.

**Plants in row:** 7–20 inches (depends on row width and acre population).

For maximum yields, there should be 16,000–20,000 plants/a. Thus, actual seeding rates must be 18,000–22,000 plants/a—12–16 lb/a seed depending upon the grade or seed size for sugary hybrids. Supersweet seed is lighter and therefore only 5–8 lb/a seed is required.

Plant sweet corn for processing during May and June. Market gardeners may plant on light soils in mid-April. Supersweets are more sensitive to cold soils and should be planted when the soil temperature is over 60°F.

Uniform plant growth and maturity is important for processing sweet corn plantings since fields must be harvested at one time for market and processing. Plant uniform-size seed using a dependable planter with plates designed for that specific seed grade.

A deep firm seedbed free of clods, trash, and surface irregularities is necessary for uniform germination, good stands, and uniform maturity. You can fall plow moderately heavy soils that are unlikely to erode and leave them rough over the winter to permit earlier spring planting. You should plow light soils early in the spring.

Plow under stubble or green manure crops that precede sweet corn, and disk the soil 3–4 weeks before planting. Disk as many times as necessary to prepare a uniform seedbed and keep weeds under control. However, a crust can form if you work the soil too much.

In heavy soils, do not plant seed deeper than 1 inch. On sandy loams, plant seed 1.5 inches deep, and plant seed 2 inches deep on light sandy soils. Deeper planting may interfere with germination and prevent emergence if packing and crusting follow hard rains. In case of packing or crusting, use a rotary hoe to break the crust.

To extend the length of harvest, you can use successive plantings of the same hybrid at intervals of a week or less; or plant early-, medium-, and late-maturing hybrids at the same time. Late plantings of early varieties usually are less productive than early plantings of late varieties. If you plant different hybrids that will be used for processing, they should have a similar ear and similar kernel type and color because of overlap at harvest. Late plantings often have more serious problems with diseases and insects.

Continuous corn production in the same field increases the danger of corn rootworm damage. To avoid this problem, rotate crops. You can rotate sweet corn with other vegetable processing crops such as green beans, lima beans, peas, and cabbage. You can use early hybrids in multiple cropping systems following canning peas.

## Irrigation

Sweet corn is sensitive to the moisture supply, especially during the 10 days before silking and the 20 days between silking and harvest. Irrigation rates depend upon soil type, temperature, relative humidity, and rainfall. Apply 2–3 inches of water when needed.

## Lime and fertilizer

**Lime:** Use dolomitic limestone to maintain a pH of 6.0 or higher on mineral soils and 5.6 on organic soils.

**Fertilizer rates:** Apply fertilizer according to soil test recommendations. Use annual nitrogen,  $P_2O_5$ , and  $K_2O$  recommendations in the table below. Take credits for previous legume crops and manure. Sowing 1.5–2.0 bu/a of rye or wheat after the corn harvest in late August or September may help capture some mobile soil nutrients.

**Application:** Broadcast lime and fertilizer and disc or plow under before seeding. Apply fertilizer to the side and below the seed.

**Nitrogen:** Apply sidedress or split the rate into two or 3 applications during the growing season on sandy soils. You can apply nitrogen through the irrigation system.

**Micronutrients:** If the soil test is low or very low for zinc, apply 2–4 lb Zn/a with the starter fertilizer.

## Annual nitrogen, phosphate, and potash recommendations for sweet corn

Nitrogen		Phosphate and potash		
Organic matter (%)	Amount to apply (lb/a)	Yield goal (t/a)	Amount $P_2O_5$ to apply* (lb/a)	Amount $K_2O$ to apply* (lb/a)
<2	150	2.0–4.0	10	20
2.0–9.9	130	4.1–6.0	15	30
10–20	110	6.1–8.0	25	40
>20	70	8.1–10.0	30	55

\*Amounts shown are for optimum (O) soil test levels. Apply 50% of this rate if soil test is high (H) and omit if soil test is excessively high (EH). If soil test is low (L) or very low (VL), increase rates according to soil test recommendations.

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## Disease control in sweet corn

	Disease	Active ingredient	Rate/a of commercial product	Days to harvest	Remarks and suggestions
Pea	<b>Anthraco</b>	<i>Rotate crops or use deep-incorporation of debris from previous year's corn crop.</i>			
Pepper	<b>Leaf rust, foliar diseases</b> (gray leaf spot, northern corn leaf blight, and northern corn leaf spot)	azoxystrobin	<i>leaf rust:</i> 6.0–9.0 fl oz Quadris Flowable, Satori <i>other foliar diseases:</i> 6.0–15.5 fl oz Quadris Flowable, Satori	7	Headline, Quadris, and Satori belong to the Group 11 (strobilurin) fungicide category. Avaris, Quilt, and Stratego contain Group 11 and Group 3 fungicides. Do not exceed 1 application of Headline, Quadris, Satori, Quilt, or Stratego before alternating to a labeled fungicide with a different mode of action. The number of applications using Group 11 fungicides should not exceed half of the total fungicide applications per season.  Treat when disease first appears; continue fungicide applications on a 7- to 14-day interval if conditions favorable for disease development persist.
		azoxystrobin + propiconazole	<i>leaf rust, gray leaf spot, eyespot:</i> 10.5–14.0 fl oz Avaris, Quilt <i>other foliar diseases:</i> 7.0–14.0 fl oz Avaris, Quilt	14	
Potato	prothioconazole + triflozystrobin	4.0–5.0 fl oz Stratego YLD	14 (fodder) 0 (forage & ears)		
	pyraclostrobin	6.0–12.0 fl oz Headline	7		
	azoxystrobin + benzovindiflupyr	5.0–7.3 oz Elatus	7	Begin applications prior to disease onset. Make no more than 2 applications before alternating to a non-Group 7 or 11 fungicide.	
Pumpkin & squash	azoxystrobin + tebuconazole	9.0–12.9 fl oz Custodia	7	Do not use adjuvants or crop oil after V8 stage of plant growth. For best results, tank mix with the lowest labeled rate of a spray surfactant and obtain sufficient coverage.	
	benzovindiflupyr	4.0 fl oz Trivapro A		The addition of a spreading/penetrating adjuvant is recommended.	
	chlorothalonil	0.75–2.0 pt Bravo Weather Stik, Echo 720, Equus 720  0.7–1.8 lb Bravo Ultrex 82.5WDG, Equus DF  1.25–1.625 lb Echo 90DF	14 (fresh market only) 14 (fresh market only) 14 (fresh market only)	Plant tolerant or resistant varieties. Early detection is critical for fungicide use. Early plantings are less susceptible to these diseases. Do not exceed 9.0 lb ai/a chlorothalonil per season. Spray at 4- to 7-day intervals when symptoms first appear. Do not graze treated fields or use treated corn for livestock feed.	
Sweet corn	flouxastrobin	2.0–3.8 fl oz Aftershock, Evito 480 SC	30	Do not apply more than 11.4 fl oz/a per year. Maximum of 2 applications per season, with a minimum interval of 7 days between applications.	
	flouxastrobin + tebuconazole	4.0–9.0 fl oz Evito T	7	Begin applications preventively. Follow resistance management protocols as per the label.	
Table beet	fluxapyroxad + pyraclostrobin	4.0–8.0 fl oz Priaxor	7 (for sweet corn only)	Do not apply more than 16.0 fl oz/a per season. Do not make more than 2 consecutive applications of Priaxor before alternating to a labeled fungicide with a different mode of action.	
	Tomato	mancozeb	0.8–1.2 qt Penncozeb 4FL 1.2 qt Dithane F-45 1.0–1.5 lb Penncozeb 80WP, Penncozeb 75DF 1.5 lb Dithane DF Rainshield, Koverall, Manzate 200 75DF	7 7 7 7	Consult label for product use limits. Spray every 5–10 days depending on disease and weather pressures. Do not feed treated forage to livestock.

(continued)

**Disease control in sweet corn** *(continued)*

Disease	Active ingredient	Rate/a of commercial product	Days to harvest	Remarks and suggestions
<b>Leaf rust, foliar diseases</b> <i>(cont.)</i>	penthiopyrad	10.0–24.0 fl oz Vertisan	7 (grain and stover harvest) 0 (grazing or forage)	Make no more than 2 sequential applications before switching to a fungicide with a different mode of action. Do not exceed 48.0 fl oz/a per year.
	picoxystrobin	3.0–12.0 fl oz Aproach (rates increase for crop growth stages; see label)	7	Do not exceed 36.0 fl oz per acre per crop. Make no more than 2 sequential applications before alternating to a fungicide with a different mode of action.
	propiconazole	<i>eye spot, gray leaf spot, rusts:</i> 4.0 fl oz AmTide Propiconazole 41.8% EC, Bumper 41.8 EC, Propicure 3.6F, PropiMax EC, Tilt, Topaz <i>Helminthosporium leaf blights, northern corn leaf blight, northern corn leaf spot, southern corn leaf blight:</i> 2.0–4.0 fl oz AmTide Propiconazole 41.8% EC, Bumper 41.8 EC, Propicure 3.6F, PropiMax EC, Tilt, Topaz	14	Apply when disease first appears and continue at 7- to 14-day intervals. Do not apply more than 16.0 fl oz/a per season. Do not harvest sweet corn for forage within 14 days of application.
	propiconazole + trifloxystrobin	10.0 fl oz Stratego	14	Follow resistance management guidelines.
	pyraclostrobin + metconazole	10.0–14.4 fl oz Headline AMP	7	Make no more than 4 applications per season. Do not apply more than 57.6 fl oz/a per season.
	tebuconazole	4.0–6.0 fl oz Folicur 3.6 F, Monsoon, Onset 3.6L, Orius 3.6F, TebuStar 3.6L, Tebusha 3.6FL, Tebuzol, Toledo	7	Do not exceed 24.0 fl oz/a per season. Restricted entry interval is 19 days. May be applied up to 7 days before the harvest of ears or forage, and 49 days before the harvest of fodder.
<b>Maize dwarf mosaic</b>	<i>Plant tolerant or resistant varieties. Early plantings generally are less susceptible to this disease.</i>			
<b>Seed rot and damping-off</b>	captan fludioxonil ipconazole sedaxane thiram tolclofos-methyl Trilex (metalaxyl + trifloxystrobin)	Seed corn should always be treated with a fungicide. Follow manufacturer's directions for rate and use. Do not use treated seed for feed or food.		
<b>Smut</b>	<i>There is no satisfactory control for smut. Later, larger-growing varieties tend to have less infection than early, small varieties. Avoid excessive nitrogen or manure. Not poisonous to livestock or people.</i>			
<b>White line mosaic</b>	<i>Occurs more in soils that have high moisture content. Varieties resistant to this virus have not been identified.</i>			

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## Scouting calendar for insect pests of sweet corn

	April			May			June			July			August			September		
	early	mid	late	early	mid	late	early	mid	late	early	mid	late	early	mid	late	early	mid	late
Pea	Armyworms																	
	Cutworms																	
	Flea beetles																	
	European corn borer, 1st gen.						European corn borer, 2nd gen.											
	Corn leaf aphids																	
	Stalk borer larvae																	
	Hop vine borer larvae																	
	Corn rootworm, larvae						adults			←egg laying begins								
	Western bean cutworm																	
	Corn earworm						Fall armyworm											
Pepper																		
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## Spray schedule for corn earworm (CEW) based on nightly trap catches of moths

CEW moths per night		
in blacklight trap	in pheromone trap*	Treatment
<5	<10	No treatment needed.
5–24	10–99	Treat vulnerable corn (row tassel to 100% silk) with an effective CEW insecticide, reapplying every 2–5 days until brown silks appear.
25–100	100–500	Treat silking corn until brown silk. Corn should be treated on a 2- to 3-day schedule as long as trap catches remain high.
>100	>500	Treat silking corn with most effective CEW insecticide until brown silk. Corn should be treated on a 1- to 2-day schedule as long as trap catches remain high.

Adapted from Foster and Flood (eds.), *Vegetable Insect Management* (Willoughby, OH: Meister Publishing, 2005).

\*Pheromone traps and lures for CEW can be ordered at Great Lakes IPM: [www.greatlakesipm.com](http://www.greatlakesipm.com).

## Spray schedule for European corn borer (ECB) based on blacklight trap catches of moths

ECB moths trapped per night	Treatment
<10	No treatment needed. Moths probably not laying enough eggs to justify a treatment program, but keep monitoring silking sweet corn for egg laying. Be aware that catches may increase in near future.
10–100 for 3 consecutive nights	Moths are laying eggs. Sweet corn is in a vulnerable stage (pre-row tassel to brown silk). Treat with insecticide. If you are catching female ECB moths in blacklight trap, eggs are already in the field.
>100	This is a reinfestation flight. Moths are laying high numbers of eggs in the field. If sweet corn is in vulnerable stage, apply an insecticide, even if previously treated. Repeat treatment every 5–7 days (depending on temperature) until brown silk.

Adapted from Foster and Flood (eds.), *Vegetable Insect Management* (Willoughby, OH: Meister Publishing, 2005); and R. Foster, *Managing Insects in Commercially Grown Sweet Corn* (Purdue Extension Publication E-98-W, 2008).

## Insect control in sweet corn

Insect	Rate/a of active ingredient	Rate/a of commercial product	Days to harvest	Remarks and suggestions
<b>Aphids</b>	<i>Corn leaf aphids can occur in large numbers on tassels of sweet corn plants. Treat fields if field is less than 50% pollinated and at least 50% of the plants are infested with at least 50 aphids per plant.</i>			
	acetamiprid	Assail, several formulations (see label for rate)	1–7 (dependent on rate)	Do not exceed a total of 0.21 lb ai (11.2 oz)/a per growing season.
	0.018–0.025 lb alpha-cypermethrin	2.8–3.8 fl oz *Fastac CS, *Fastac EC	3	Do not apply more than 11.4 fl oz (0.075 lb ai)/a per season.
	azadirachtin	Neemix 4.5 (see label for rate)	0	Suppression and adult feeding deterrence; apply every 7–10 days.
	0.033–0.10 lb bifenthrin	2.1–6.4 fl oz *Brigade 2EC	1	Do not exceed 12.8 fl oz/a (0.2 lb ai/a) per season. Do not graze or use treated crops for feed within 1 day of last application.
	0.5–1.0 lb chlorpyrifos	1.0–2.0 pt *Lorsban Advanced	21	Do not make more than 3 applications of any product containing chlorpyrifos per season. Do not apply more than 6.38 pt/a Lorsban (3.0 lb ai/a) per season. Do not make a sequential application of a chlorpyrifos-containing product within 10 days of previous application.
	chlorpyrifos + lambda-cyhalothrin	11.0–26.0 fl oz *Cobalt Advanced	21	Do not exceed 129.0 fl oz Cobalt Advanced (2.5 lb ai chlorpyrifos and 0.13 lb ai lambda-cyhalothrin) per acre per season. Do not make more than 3 applications of Cobalt Advanced or other products containing chlorpyrifos per season.
	clarified hydrophobic extract of neem oil (see label for rates)	Trilogy	0	
	0.25–0.5 mg clothianidin/ kernel	1.13–2.26 fl oz Poncho 600/80,000 seeds	seed treatment	Early season protection. Purchase treated seed from seed dealer or seed treatment representative.
	0.25–0.50 mg clothianidin/seed, <i>Bacillus firmus</i>	1.35–2.7 fl oz Poncho/VOTIVO/80,000 seeds	seed treatment	Purchase treated seed from seed dealer or seed treatment representative. Also used for nematode management. Pretest for compatibility with other seed treatments. Do not use treated seed for food, feed, or oil production.
	0.018–0.028 lb deltamethrin	1.5–2.4 fl oz *Delta Gold 1.5EC	1 (ear, grazing) 21 (stover)	For suppression only. Do not exceed 38.4 fl oz/a (0.45 lb ai/a) per season. See label for grazing and feed restrictions.
	0.03–0.05 lb esfenvalerate	5.8–9.6 fl oz *Asana XL	1	Do not exceed 0.5 lb ai/a per season.
	0.01–0.015 lb gamma-cyhalothrin	2.56–3.84 fl oz *Proaxis	1	Suppression only. Do not apply more than 3.84 pt/a (0.24 lb ai/a) per season. See label for resistance statement plus grazing and forage feed restrictions.
		1.02–1.54 fl oz *Declare	1	For suppression only. Do not apply more than 1.54 pt/a per crop. See label for resistance statement plus grazing and forage feed restrictions.
	3.2–6.4 fl oz imidacloprid/ 100 lb seed	3.2–6.4 fl oz Gaucho 600/100 lb seed	seed treatment	Early season protection. Purchase treated seed from seed dealer or seed treatment representative.

\*Restricted-use pesticide.

(continued)

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## Insect control in sweet corn *(continued)*

Insect	Rate/a of active ingredient	Rate/a of commercial product	Days to harvest	Remarks and suggestions
<b>Aphids</b> <i>(cont.)</i>	0.02–0.03 lb lambda-cyhalothrin	1.28–1.92 fl oz *Warrior II	1	Suppression only. Do not exceed 0.48 lb ai/a. See label for resistance statement plus grazing and forage feed restrictions.
	lambda-cyhalothrin + chlorantraniliprole	6.0–10.0 fl oz *Besiege	1	For suppression only. Do not apply more than 31.0 fl oz of Besiege or 0.48 lb ai of lambda-cyhalothrin containing products or 0.2 lb ai of chlorantraniliprole-containing products per acre per year. See label for grazing and forage restrictions.
	methomyl	*Lannate LV, *Lannate SP (rates vary by formulations)	0 (ears) 3 (forage) 21 (stover)	Certain hybrids are susceptible to methomyl injury. Treat a small area to determine crop safety before full spraying. Allow at least 1 day between treatments.
	zeta-cypermethrin	3.0–4.3 fl oz *Mustang	3	Aphid control may be variable depending on species present and host-plant relationships. A maximum of 25.8 oz of product or 0.3 lb ai/a per season may be applied.
	0.0175–0.025 lb zeta-cypermethrin	2.8–4.0 oz *Mustang Maxx	3	Do not exceed 24.0 fl oz/a Mustang Maxx (0.15 lb ai/a) per season. Aphid control may be variable depending on species present and host-plant relationships.
	zeta-cypermethrin + bifenthrin	*Hero, *Hero EW (rates vary by formulation)	3	Do not exceed 0.266 lb ai/a per season. Refer to maximum usage tables when applying more than one product containing zeta-cypermethrin and/or bifenthrin.
	zeta-cypermethrin + chlorpyrifos	9.25–11.75 fl oz *Stallion	21	Aphid control may be variable depending on species present and host-plant relationships. A maximum of 11.75 fl oz of product may be applied per acre (0.025 lb/a zeta-cypermethrin + 0.25 lb/a chlorpyrifos). Refer to the maximum usage tables on the label when applying more than one product containing either zeta-cypermethrin or chlorpyrifos to this crop.
<b>Armyworms</b>	<i>Treat when there are two or more armyworms per plant on 25% of plants or there is one per plant on 75% of the plants and armyworms are 3/4 inch or smaller in length.</i>			
	0.018–0.025 lb alpha-cypermethrin	2.8–3.8 fl oz *Fastac CS, *Fastac EC	3	Do not apply more than 11.4 fl oz (0.075 lb ai)/a per season.
	azadirachtin	Neemix 4.5, Trilogy (see label for rates)	0	Foliar application to larvae.
	<i>Bacillus thuringiensis</i>	Agree WG, Biobit, DiPel, Javelin, others	0	See label for rate.
	0.013–0.022 lb beta-cyfluthrin	1.6–2.8 fl oz *Baythroid XL	0	For control of first and second instar larvae. Do not exceed 28.0 fl oz/a (0.22 lb ai/a) per season.
	0.033–0.10 lb bifenthrin	2.1–6.4 fl oz *Brigade 2EC	1	Do not exceed 12.8 fl oz/a (0.2 lb ai/a) per season. Do not graze or use treated crops for feed within 1 day of last application.
	0.05–0.2 lb bifenthrin	0.23–0.92 fl oz/1,000 ft row *Capture 3RIVE 3D		Do not apply more than 0.2 lb ai/a per season.

\*Restricted-use pesticide.

*(continued)*

**Insect control in sweet corn** (continued)

Insect	Rate/a of active ingredient	Rate/a of commercial product	Days to harvest	Remarks and suggestions
<b>Armyworms</b> (cont.)	carbaryl	1.0–2.0 qt Sevin XLR Plus	2 (ears) 14 (forage) 48 (fodder)	Highly toxic to bees; see label for details. Do not exceed 16.0 qt/a per season. Hand harvesting is prohibited.
	0.045–0.065 lb chlorantraniliprole	3.5–7.5 fl oz Coragen	1	Do not make more than 4 applications per crop season and allow at least 1 day between applications. Do not apply more than 15.4 fl oz/a Coragen per season.
	0.5–1.0 lb chlorpyrifos	1.0–2.0 pt *Lorsban Advanced	21	Do not make more than 3 applications of any product containing chlorpyrifos per season. Do not apply more than 6.38 pt/a Lorsban (3.0 lb ai/a) per season. Do not make a sequential application of a chlorpyrifos-containing product within 10 days of previous application.
	chlorpyrifos + lambda-cyhalothrin	11.0–26.0 fl oz *Cobalt Advanced	21	Do not exceed 129.0 fl oz Cobalt Advanced (2.5 lb ai chlorpyrifos and 0.13 lb ai lambda-cyhalothrin) per acre per season. Do not make more than 3 applications of Cobalt Advanced or other products containing chlorpyrifos per season.
	0.018–0.028 lb deltamethrin	1.5–2.4 fl oz *Delta Gold 1.5EC	1 (ear, grazing) 21 (stover)	Apply to early instar larvae. Do not exceed 38.4 fl oz/a (0.45 lb ai/a) per season. See label for grazing and feed restrictions.
	0.03–0.05 lb esfenvalerate	5.8–9.6 fl oz *Asana XL	1	Do not exceed 0.5 lb ai/a per season.
	flubendiamide	2.0–3.0 fl oz Belt SC	1 (ear)	Do not apply more than 12.0 fl oz/a (0.375 lb ai/a) per crop season. See label for grazing and forage restrictions.
	0.02–0.03 lb lambda-cyhalothrin	1.28–1.92 fl oz *Warrior II	1	Use higher rates for large larvae. Do not apply more than 0.48 lb ai/a per crop. See label for grazing and forage feed restrictions.
	lambda-cyhalothrin + chlorantraniliprole	6.0–10.0 fl oz *Besiege	1	Use higher rates within the listed rate range for large larvae. Do not apply more than 31.0 fl oz of Besiege or 0.48 lb ai of lambda-cyhalothrin containing products or 0.2 lb ai of chlorantraniliprole-containing products per acre per year. See label for grazing and forage restrictions.
	0.225–0.45 lb methomyl	*Lannate LV, *Lannate SP (rates vary by formulation)	0 (ears) 3 (forage) 21 (stover)	Certain hybrids are susceptible to methomyl injury. Treat a small area to determine crop safety before full-scale spraying. Allow at least 1 day between treatments.
	0.06–0.25 lb methoxyfenozide	4.0–16.0 fl oz Intrepid 2F	3 (ears, green chop) 21 (fodder)	For heavy infestations, reapply at 5- to 10-day intervals. Do not exceed 16.0 fl oz/a per application or 64.0 fl oz/a (1.0 lb ai/a) per season.
	novaluron	6.0–12.0 fl oz Rimon 0.83EC	1	Do not apply more than 60.0 fl oz/a per season.
	permethrin	several formulations	1	Several formulations; see label for rate.
spinetoram	3.0–6.0 fl oz Radiant SC	1 (ear) 3 (forage, fodder)	Do not make more than 6 applications per crop or exceed 0.281 lb ai/a per season. Wait at least 4 days between treatments.	

\*Restricted-use pesticide.

(continued)

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## Insect control in sweet corn *(continued)*

Insect	Rate/a of active ingredient	Rate/a of commercial product	Days to harvest	Remarks and suggestions	
Pea	<b>Armyworms</b> <i>(cont.)</i>	spinosad	1.67–3.3 fl oz Blackhawk 1.5–6.0 fl oz Entrust SC other formulations available	1 (grain) 7 (forage) 28 (fodder)	Scout for armyworms with enough regularity to monitor egg laying and egg hatch. Time applications to coincide with peak egg hatch of each generation. A 5- to 7-day re-treatment schedule may be necessary if the crop is growing rapidly or if there is heavy pest pressure. Do not apply more than a total of 0.45 lb ai of spinosad (20.0 fl oz of Blackhawk or 29.0 fl oz of Entrust SC). Do not make more than 6 applications per calendar year.
		zeta-cypermethrin	3.0–4.3 fl oz *Mustang	3	A maximum of 25.8 oz of product or 0.3 lb ai/a per season may be applied.
		0.0175–0.025 lb zeta-cypermethrin	2.8–4.0 oz *Mustang Maxx	3	Do not exceed 24.0 oz/a Mustang Maxx (0.15 lb ai/a) per season.
		zeta-cypermethrin + bifenthrin	*Hero, *Hero EW (rates vary by formulation)	3	Do not exceed 0.266 lb ai/a per season. Refer to maximum usage tables when applying more than one product containing zeta-cypermethrin and/or bifenthrin.
		zeta-cypermethrin + chlorpyrifos	9.25–11.75 fl oz *Stallion	21	A maximum of 11.75 fl oz of product may be applied per acre (0.025 lb/a zeta-cypermethrin + 0.25 lb/a chlorpyrifos). Refer to the maximum usage tables on the label when applying more than one product containing either zeta-cypermethrin or chlorpyrifos to this crop.
Pepper					
Potato					
Pumpkin & squash					
Sweet corn	<b>Corn earworm</b>	<i>Treat as soon as silks begin to appear and pheromone trap catches indicate threshold levels have been exceeded. Check traps at least every other day when moths are present. Refer to spray schedule above for timing recommendations. Make ground application in 25 gal of water/a with at least 100 psi. Direct nozzles at silks from each side of the row. Make aerial applications in 4–5 gal water/a.</i>			
		0.018–0.025 lb alpha-cypermethrin	2.8–3.8 fl oz *Fastac CS, *Fastac EC	3	Do not apply more than 11.4 fl oz (0.075 lb ai)/a per season.
		<i>Bacillus thuringiensis</i> (granular formulations)	Agree WG, Biobit, DiPel, Javelin, others (see label rates)	0	See label for control suggestions.
		0.013–0.022 lb beta-cyfluthrin	1.6–2.8 fl oz *Baythroid XL	0	Application must be made before larvae bore into plants. Do not exceed 28.0 fl oz/a (0.22 lb ai/a) per season.
		0.033–0.10 lb bifenthrin	2.1–6.4 fl oz *Brigade 2EC	1	Do not exceed 12.8 fl oz/a (0.2 lb ai/a) per season. Do not graze or use treated crops for feed within 1 day of last application.
		carbaryl	1.0–2.0 qt Sevin XLR Plus	2 (ears) 14 (forage) 48 (fodder)	Highly toxic to bees; see label for details. Do not exceed 16.0 qt/a per season. Hand harvesting is prohibited.
Table beet		chlorantraniliprole	3.5–7.5 fl oz Coragen	1	Do not make more than 4 applications per crop season and allow at least 1 day between applications. Do not apply more than 15.4 fl oz/a Coragen per season.
		0.75–1.0 lb chlorpyrifos	1.5–2.0 pt *Lorsban Advanced	21	Do not make more than 3 applications of any product containing chlorpyrifos per season. Do not apply more than 6.38 pt/a Lorsban (3.0 lb ai/a) per season. Do not make a sequential application of a chlorpyrifos-containing product within 10 days of previous application.

\*Restricted-use pesticide.

*(continued)*

**Insect control in sweet corn** (continued)

Insect	Rate/a of active ingredient	Rate/a of commercial product	Days to harvest	Remarks and suggestions
<b>Corn earworm</b> (cont.)	chlorpyrifos + lambda-cyhalothrin	16.0–38.0 fl oz *Cobalt Advanced	21	Do not exceed 129.0 fl oz Cobalt Advanced (2.5 lb ai chlorpyrifos and 0.13 lb ai lambda-cyhalothrin) per acre per season. Do not make more than 3 applications of Cobalt Advanced or other products containing chlorpyrifos per season.
	0.018–0.028 lb deltamethrin	1.5–2.4 fl oz *Delta Gold 1.5EC	1 (ear, grazing) 21 (stover)	Apply to early instar before larvae bore into plants. Apply as needed from tassel emergence to silk dry down. Do not exceed 38.4 fl oz/a (0.45 lb ai/a) per season. See label for grazing and feed restrictions.
	0.03–0.05 lb esfenvalerate	5.8–9.6 fl oz *Asana XL	1	Do not exceed 0.5 lb ai/a per season.
	flubendiamide	2.0–3.0 fl oz Belt SC	1 (ear)	Do not apply more than 12.0 fl oz/a (0.375 lb ai/a) per crop season. See label for grazing and forage restrictions.
	0.01–0.015 lb gamma-cyhalothrin	2.56–3.84 oz *Proaxis	1	Do not apply more than 3.84 pt/a (0.24 lb ai/a) per season. See label for grazing and forage feed restrictions.
		1.02–1.54 fl oz *Declare	1	Do not apply more than 1.54 pt/a per crop. See label for grazing and forage feed restrictions.
	<i>Helicoverpa armigera</i> nucleopolyhedrovirus	0.5–2.5 fl oz Helicovex	0	Shake container well before use. Keep tank agitated during spraying. Spray as soon as possible after mixing; do not allow the spray mix to stand overnight. See label for applications frequency.
	0.045–0.065 lb indoxacarb	2.5–3.5 fl oz Avaunt	3 (ear)	Do not exceed 4 applications per season. Use from whorl stage through tassel push (prior to silking). Do not apply more than 14.0 oz/a (0.26 lb ai/a) per crop. Allow at least 3 days between sprays. 14-day hand harvest restriction.
	0.02–0.03 lb lambda-cyhalothrin	1.28–1.92 fl oz *Warrior II	1	Do not apply more than 0.48 lb ai/a per crop. See label for grazing and forage feed restrictions.
	lambda-cyhalothrin + chlorantraniliprole	6.0–10.0 fl oz *Besiege	1	Do not apply more than 31.0 fl oz of Besiege or 0.48 lb ai of lambda-cyhalothrin containing products or 0.2 lb ai of chlorantraniliprole-containing products per acre per year. See label for grazing and forage restrictions.
	methomyl	*Lannate LV, *Lannate SP (rates vary by formulation)	0 (ears) 3 (forage) 21 (stover)	Certain hybrids are susceptible to methomyl injury. Treat a small area to determine crop safety before full-scale spraying. Allow at least 1 day between treatments.
	novaluron	Rimon 0.83EC, Rimon 10 EC (rates vary by formulation)	1	9-day hand harvest restriction.
	nuclear polyhedrosis insecticidal virus	4.0–10.0 fl oz Gemstar LC	0	Application should be made from early vegetative growth stage to tasseling and before silks emerge. Re-treatment may be required at 2- to 3-day intervals.

\*Restricted-use pesticide.

(continued)

Pea

Pepper

Potato

Pumpkin & squash

Sweet corn

Table beet

Tomato

## Insect control in sweet corn *(continued)*

Insect	Rate/a of active ingredient	Rate/a of commercial product	Days to harvest	Remarks and suggestions
<b>Corn earworm</b> <i>(cont.)</i>	permethrin	consult label	1	Several formulations; see label for rate.
	spinetoram	3.0–6.0 fl oz Radiant SC	1 (food) 3 (forage, fodder)	Do not make more than 6 applications per crop. Do not exceed 0.281 lb ai/a per season. Wait at least 2 days between treatments at silking.
<b>Pepper</b>	spinosad	2.2–3.3 fl oz Blackhawk 3.0–6.0 fl oz Entrust SC	1 (grain) 7 (forage) 28 (fodder)	Time applications of Blackhawk to coincide with peak egg hatch of each generation. Frequent treatments may be necessary when the crop is growing rapidly, during silking, or under heavy pressure. For corn earworm control, a 1- to 2-day re-treatment schedule may be necessary at silking. Do not apply more than a total of 0.45 lb ai of spinosad (20.0 fl oz of Blackhawk or 29.0 fl oz of Entrust SC). Do not make more than 6 applications per calendar year.
	zeta-cypermethrin	3.0–4.3 fl oz *Mustang	3	A maximum of 25.8 oz of product or 0.3 lb ai/a per season may be applied.
	0.0175–0.025 lb zeta-cypermethrin	2.8–4.0 oz *Mustang Maxx	3	Do not exceed 24.0 oz/a Mustang Maxx (0.15 lb ai/a) per season.
	zeta-cypermethrin + bifenthrin	*Hero, *Hero EW (rates vary by formulation)	3	Do not exceed 0.266 lb ai/a per season. Refer to maximum usage tables when applying more than one product containing zeta-cypermethrin and/or bifenthrin.
<b>Potato</b>	zeta-cypermethrin + chlorpyrifos	9.25–11.75 fl oz *Stallion	21	For control before the larva bores into the plant stalk or ear. A maximum of 11.75 fl oz of product may be applied per acre (0.025 lb/a zeta-cypermethrin + 0.25 lb/a chlorpyrifos). Refer to the maximum usage tables on the label when applying more than one product containing either zeta-cypermethrin or chlorpyrifos to this crop.
<b>Pumpkin &amp; squash</b>				
<b>Sweet corn</b>	<b>Corn flea beetle</b>	<i>These tiny (less than 1/16 inch), black beetles transmit the bacterial disease Stewart's wilt. The pathogen overwinters in beetles, plant residue, and soil. During mild winters, enough flea beetles may survive in Wisconsin to lead to significant incidence of Stewart's wilt in the southern tier or two of counties.</i>		
		<i>To predict disease risk—and the need to scout for beetles—add the monthly average temperatures for December, January, and February. Scout seedling corn intensively if the total is greater than 90°F. Treatment may be warranted if you find an average of six or more beetles per 100 plants. Beetles readily jump from plants when disturbed.</i>		
	acetamiprid	Assail, several formulations (see label for rate)	1–7 (dependent on rate)	Do not exceed a total of 0.21 lb ai (11.2 oz)/a per growing season.
	0.014–0.025 lb alpha-cypermethrin	2.2–3.8 fl oz *Fastac CS, *Fastac EC	3	Do not apply more than 11.4 fl oz (0.075 lb ai)/a per season.
	0.007–0.013 lb beta-cyfluthrin	0.8–1.6 fl oz *Baythroid XL	0	Do not exceed 28.0 fl oz/a (0.22 ai/a) per season.
	0.033–0.10 lb bifenthrin	2.1–6.4 fl oz *Brigade 2EC	1	Do not exceed 12.8 fl oz/a (0.2 lb ai/a) per season. Do not graze or use crops for feed within 1 day of last treatment.
	carbaryl	1.0–2.0 qt Sevin XLR Plus	2 (ears) 14 (forage) 48 (fodder)	Highly toxic to bees; see label for details on protecting them. Do not exceed 16.0 qt/a per season. Hand harvesting is prohibited.

\*Restricted-use pesticide.

*(continued)*

**Insect control in sweet corn** (continued)

Insect	Rate/a of active ingredient	Rate/a of commercial product	Days to harvest	Remarks and suggestions
<b>Corn flea beetle</b> (cont.)	0.5–1.0 lb chlorpyrifos	1.0–2.0 pt *Lorsban Advanced	21	Do not make more than 3 applications of any product containing chlorpyrifos per season. Do not apply more than 6.38 pt/a Lorsban (3.0 lb ai/a) per season. Do not make a sequential application of a chlorpyrifos-containing product within 10 days of previous application.
	chlorpyrifos + lambda-cyhalothrin	11.0–26.0 fl oz *Cobalt Advanced	21	Do not exceed 129.0 fl oz Cobalt Advanced (2.5 lb ai chlorpyrifos and 0.13 lb ai lambda-cyhalothrin) per acre per season. Do not make more than 3 applications of Cobalt Advanced or other products containing chlorpyrifos per season.
	0.25–0.50 mg clothianidin/kernel	1.13–2.7 fl oz Poncho 600/80,000 seeds	seed treatment	Early season protection. Purchase treated seed from seed dealer or seed treatment representative.
	0.25–0.50 mg clothianidin/seed, <i>Bacillus firmus</i>	1.35–2.7 fl oz Poncho/VOTIVO/80,000 seeds	seed treatment	Purchase treated seed from seed dealer or seed treatment representative. Also used for nematode management. Pretest for compatibility with other seed treatments. Do not use treated seed for food, feed, or oil production.
	0.012–0.018 lb deltamethrin	1.0–1.5 fl oz *Delta Gold 1.5EC	1 (ear, grazing) 21 (stover)	Do not exceed 38.4 fl oz/a per season. See label for grazing and feed restrictions.
	0.03–0.05 lb esfenvalerate	5.8–9.6 fl oz *Asana XL	1	Do not exceed 0.5 lb ai/a per season.
	0.01–0.015 lb gamma-cyhalothrin	2.56–3.84 oz *Proaxis	1	Do not apply more than 3.84 pt/a (0.24 lb ai/a) per season. See label for grazing and forage use restrictions.
		1.02–1.54 fl oz *Declare	1	Do not apply more than 1.54 pt/a per crop. See label for grazing and forage use restrictions.
	3.2–6.4 fl oz imidacloprid/100 lb seed	3.2–6.4 fl oz Gaucho 600/100 lb seed	seed treatment	Purchase treated seed from seed dealer or seed treatment representative.
	0.02–0.03 lb lambda-cyhalothrin	1.28–1.92 fl oz *Warrior II	1	Do not exceed 0.48 lb ai/a per season. See label for grazing and forage feed restrictions.
	lambda-cyhalothrin + chlorantraniliprole	6.0–10.0 fl oz *Besiege	1	Do not apply more than 31.0 fl oz of Besiege or 0.48 lb ai of lambda-cyhalothrin containing products or 0.2 lb ai of chlorantraniliprole-containing products per acre per year. See label for grazing and forage restrictions.
	methomyl	*Lannate LV, *Lannate SP (rates vary by formulations)	0 (ears) 3 (forage) 21 (stover)	Certain hybrids are susceptible to methomyl injury. Treat a small area to determine crop safety before full spraying. Allow at least 1 day between treatments.
	0.25–0.80 mg thiamethoxam/kernel	Cruiser	seed treatment	Early season protection. Purchase treated seed from seed dealer or seed treatment representative.
	zeta-cypermethrin	2.4–4.3 fl oz *Mustang	3	A maximum of 25.8 oz of product or 0.3 lb ai/a per season may be applied.
	0.014–0.025 lb zeta-cypermethrin	2.24–4.0 fl oz *Mustang Maxx	3	Do not exceed 24.0 oz/a Mustang Maxx (0.15 lb ai/a) per season.

\*Restricted-use pesticide.

(continued)

Pea

Pepper

Potato

Pumpkin & squash

Sweet corn

Table beet

Tomato

## Insect control in sweet corn *(continued)*

Insect	Rate/a of active ingredient	Rate/a of commercial product	Days to harvest	Remarks and suggestions
<b>Corn flea beetle</b> <i>(cont.)</i>	zeta-cypermethrin + bifenthrin	*Hero, *Hero EW (rates vary by formulation)	3	Do not exceed 0.266 lb ai/a per season. Refer to maximum usage tables when applying more than one product containing zeta-cypermethrin and/or bifenthrin.
	zeta-cypermethrin + chlorpyrifos	9.25–11.75 fl oz *Stallion	21	A maximum of 11.75 fl oz of product may be applied per acre (0.025 lb/a zeta-cypermethrin + 0.25 lb/a chlorpyrifos). Refer to the maximum usage tables on the label when applying more than one product containing either zeta-cypermethrin or chlorpyrifos to this crop.
<b>Cutworms</b>	<i>Treat when 5% of plants are cut.</i>			
	<i>Lorsban 15G, *Counter 20G, and *Mocap 15G soil insecticides are labeled for planting-time application for cutworm control. These products are relatively effective in controlling or suppressing light to moderate infestations. However, data for heavy infestations are limited and reports of unacceptable levels of damage from heavy infestations have occurred. Because of these factors and the difficulty of predicting cutworm outbreaks, do not use the "preventive approach." Field scouting and application of banded sprays is a better approach.</i>			
	0.014–0.025 lb alpha-cypermethrin	2.2–3.8 fl oz *Fastac CS, *Fastac EC	3	Do not apply more than 11.4 fl oz (0.075 lb ai)/a per season.
	0.007–0.013 lb beta-cyfluthrin	0.8–1.6 fl oz *Baythroid XL	0	Do not exceed 28.0 fl oz/a (0.22 lb ai/a) per season.
	bifenthrin	0.2–0.78 fl oz *Capture LFR/1,000 ft row		Apply as a 5- to 7-inch T-band. Do not apply more than 0.2 lb ai/a per season as an at-plant application.
		*Capture 3RIVE 3D		Do not apply more than 0.2 lb ai (16.0 fl oz product) per acre per season as an at-plant application.
	0.033–0.10 lb bifenthrin	2.1–6.4 fl oz *Brigade 2EC	1	Do not exceed 12.8 fl oz/a (0.2 lb ai/a) per season. Do not graze or use treated crops for feed within 1 day of last application.
	0.05–0.2 lb bifenthrin	0.23–0.92 fl oz/1,000 ft row *Capture 3RIVE 3D		Do not apply more than 0.2 lb ai/a per season.
	carbaryl	2.0 qt Sevin XLR Plus	2 (ears) 14 (forage) 48 (fodder)	Highly toxic to bees; see label for details. Do not exceed 16.0 qt/a per season. Hand harvesting is prohibited.
	chlorethoxyfos	3.0–5.0 oz/1,000 ft row *SmartChoice	at-plant only	Do not apply as a surface band.
	0.5–1.0 lb chlorpyrifos	1.0–2.0 pt *Lorsban Advanced	21	Do not make more than 3 applications of any product containing chlorpyrifos per season. Do not apply more than 6.38 pt/a (3.0 lb ai/a) per season. Do not make a sequential application of a chlorpyrifos-containing product within 10 days of previous application.
	1.3 lb chlorpyrifos	8.0 oz Lorsban 15G/1,000 ft row	21	Do not exceed 8.0 oz/1,000 ft of row (1.3 lb ai/a) at planting. Do not make more than 3 applications of any product containing chlorpyrifos per season. Do not exceed 3.0 lb ai/a chlorpyrifos per season.

\*Restricted-use pesticide.

*(continued)*

**Insect control in sweet corn** (continued)

Insect	Rate/a of active ingredient	Rate/a of commercial product	Days to harvest	Remarks and suggestions
<b>Cutworms</b> (cont.)	chlorpyrifos + lambda-cyhalothrin	11.0–26.0 fl oz *Cobalt Advanced	21	Do not exceed 129.0 fl oz Cobalt Advanced (2.5 lb ai chlorpyrifos and 0.13 lb ai lambda-cyhalothrin) per acre per season. Do not make more than 3 applications of Cobalt Advanced or other products containing chlorpyrifos per season.
	0.25 mg clothianidin/ kernel	1.13 fl oz Poncho 600/80,000 seeds	seed treatment	Early season protection. Purchase treated seed from seed dealer or seed treatment representative.
	0.25–0.50 mg clothianidin/seed, <i>Bacillus firmus</i>	1.35–2.7 fl oz Poncho/VOTIVO/80,000 seeds	seed treatment	Purchase treated seed from seed dealer or seed treatment representative. Also used for nematode management. Pretest for compatibility with other seed treatments. Do not use treated seed for food, feed, or oil production.
	0.012–0.018 lb deltamethrin	1.0–1.5 fl oz *Delta Gold 1.5EC	1 (ear, grazing) 21 (stover)	Do not exceed 38.4 fl oz/a (0.45 lb ai/a) per season. See label for grazing and feed restrictions.
	0.03–0.05 lb esfenvalerate	5.8–9.6 fl oz *Asana XL	1	Broadcast spray. Do not exceed 0.5 lb ai/a per season.
	flubendiamide	2.0–3.0 fl oz Belt SC	1	Do not apply more than 12.0 fl oz/a (0.375 lb ai/a) per crop season. See label for grazing and forage restrictions.
	0.01–0.015 lb gamma-cyhalothrin	2.56–3.84 oz *Proaxis	1	Do not apply more than 3.84 pt/a (0.24 lb ai/a) per season. See label for grazing and forage use restrictions.
		1.02–1.54 fl oz *Declare	1	Do not apply more than 1.54 pt/a per crop. See label for grazing and forage use restrictions.
	0.02–0.03 lb lambda-cyhalothrin	1.28–1.92 fl oz *Warrior II	1	Do not apply more than 0.48 lb ai/a per crop. See label for grazing and forage feed restrictions.
	lambda-cyhalothrin + chlorantraniliprole	6.0–10.0 fl oz *Besiege	1	Do not apply more than 31.0 fl oz of Besiege or 0.48 lb ai of lambda-cyhalothrin containing products or 0.2 lb ai of chlorantraniliprole-containing products per acre per year. See label for grazing and forage restrictions.
	permethrin	consult label	1	Several formulations; see label for rate. Broadcast spray.
	tefluthrin	4.0–5.0 oz *Force 3G/1,000 ft row 0.46–5.7 fl oz *Force CS/1,000 ft row		Apply in 7-inch band or seed furrow.
	thiamethoxam	Cruiser (see label for rate)	seed treatment	Early season protection. Purchase treated seed from seed dealer or seed treatment representative.
zeta-cypermethrin	2.4–4.3 fl oz *Mustang	3	A maximum of 25.8 oz of product or 0.3 lb ai/a per season may be applied.	
0.014–0.025 lb zeta-cypermethrin	2.24–4.0 fl oz *Mustang Maxx	3	Do not exceed 24.0 oz/a Mustang Maxx (0.15 lb ai/a) per season.	

\*Restricted-use pesticide.

(continued)

Pea

Pepper

Potato

Pumpkin & squash

Sweet corn

Table beet

Tomato

## Insect control in sweet corn *(continued)*

Insect	Rate/a of active ingredient	Rate/a of commercial product	Days to harvest	Remarks and suggestions
<b>Cutworms</b> <i>(cont.)</i>	zeta-cypermethrin + bifenthrin	*Hero, *Hero EW (rates vary by formulation)	3	Do not exceed 0.266 lb ai/a per season. Refer to maximum usage tables when applying more than one product containing zeta-cypermethrin and/or bifenthrin.
	zeta-cypermethrin + chlorpyrifos	3.75–11.75 fl oz *Stallion	21	A maximum of 11.75 fl oz of product may be applied per acre (0.025 lb/a zeta-cypermethrin + 0.25 lb/a chlorpyrifos). Refer to the maximum usage tables on the label when applying more than one product containing either zeta-cypermethrin or chlorpyrifos to this crop.
<b>European corn borer</b>	<i>Scout every 5–7 days and sample at least five consecutive plants in 10 areas of a field. Treat if there is an average of one egg mass per 10 plants. Check traps at least every 2–3 days when moths are present. Refer to the spray schedule table above for treatment frequency based on trap catches.</i>			
<b>Potato</b>	0.018–0.025 lb alpha-cypermethrin	2.8–3.8 fl oz *Fastac CS, *Fastac EC	3	Do not apply more than 11.4 fl oz (0.075 lb ai)/a per season.
	<i>Bacillus thuringiensis</i> (granular formulations)	Agree WG, Biobit, DiPel, Javelin, others (see label rates)	0	First generation larvae. Larvae must be actively feeding on treated, exposed plant surfaces. Thorough spray coverage is needed. Repeat as needed every 3–14 days, depending on plant growth rate, moth activity, rainfall, and other factors.
<b>Pumpkin &amp; squash</b>	0.013–0.022 lb beta-cyfluthrin	1.6–2.8 fl oz *Baythroid XL	0	Application must be made before larvae bore into plants. Do not exceed 28.0 fl oz/a (0.22 lb ai/a) per season.
	0.033–0.10 lb bifenthrin	2.1–6.4 fl oz *Brigade 2EC	1	Do not exceed 12.8 fl oz/a (0.2 lb ai/a) per season. Do not graze or use crops for feed within 1 day of last treatment.
	carbaryl	1.5–2.0 qt Sevin XLR Plus	2 (ears) 14 (forage) 48 (fodder)	Highly toxic to bees; see label for details. Do not exceed 16.0 qt/a per season. Hand harvesting is prohibited.
<b>Sweet corn</b>	chlorantraniliprole	3.5–7.5 fl oz Coragen	1	Do not make more than 4 applications per crop season and allow at least 1 day between applications. Do not apply more than 15.4 fl oz/a Coragen per season.
	chlorpyrifos	Lorsban 15G	21	See label for rates. Do not make more than 3 applications of any product containing chlorpyrifos per season, including the maximum allowed of two granular applications, at the 1.0 lb ai/a chlorpyrifos rate. Do not exceed 3.0 lb ai/a chlorpyrifos per season.
<b>Table beet</b>		1.0–2.0 pt *Lorsban Advanced	21	Do not make more than 3 applications of any product containing chlorpyrifos per season. Do not apply more than 6.38 pt/a Lorsban (3.0 lb ai/a) per season. Do not make a sequential application of a chlorpyrifos-containing product within 10 days of previous application.
<b>Tomato</b>	chlorpyrifos + lambda-cyhalothrin	16.0–38.0 fl oz *Cobalt Advanced	21	Do not exceed 129.0 fl oz Cobalt Advanced (2.5 lb ai chlorpyrifos and 0.13 lb ai lambda-cyhalothrin) per acre per season. Do not make more than 3 applications of Cobalt Advanced or other products containing chlorpyrifos per season.

\*Restricted-use pesticide.

*(continued)*

**Insect control in sweet corn** *(continued)*

Insect	Rate/a of active ingredient	Rate/a of commercial product	Days to harvest	Remarks and suggestions
<b>European corn borer</b> <i>(cont.)</i>	0.018–0.028 lb deltamethrin	1.5–2.4 fl oz *Delta Gold 1.5EC	1 (ear, grazing) 21 (stover)	Application must be made before larvae bore into plants. Do not exceed 38.4 fl oz/a (0.45 lb ai/a) per season. See label for grazing and feed restrictions.
	0.03–0.05 lb esfenvalerate	5.8–9.6 fl oz *Asana XL	1	Do not exceed 0.5 lb ai/a per season.
	flubendiamide	2.0–3.0 fl oz Belt SC	1	Do not apply more than 12.0 fl oz/a (0.375 lb ai/a) per crop season. See label for grazing and forage restrictions.
	0.01–0.015 lb gamma-cyhalothrin	2.56–3.84 oz *Proaxis	1	Do not apply more than 3.84 pt/a (0.24 lb ai/a) per season. See label for grazing and forage feed restrictions.
		1.02–1.54 fl oz *Declare	1	Do not apply more than 1.54 pt/a per crop. See label for grazing and forage feed restrictions.
	0.045–0.065 lb indoxacarb	2.5–3.5 fl oz Avaunt	3 (ear)	Use from whorl stage through tassel push (prior to silking). Do not apply more than 14.0 oz/a (0.26 lb ai/a) per crop. Do not exceed 4 applications per season. Allow at least 3 days between sprays. Re-entry interval is 12 hours; 14 days for hand harvesting. See label for grazing and forage use restrictions.
	0.02–0.03 lb lambda-cyhalothrin	1.28–1.92 fl oz *Warrior II	1	Do not apply more than 0.48 lb ai/a per crop. See label for grazing and forage feed restrictions.
	lambda-cyhalothrin + chlorantraniliprole	6.0–10.0 fl oz *Besiege	1	Do not apply more than 31.0 fl oz of Besiege or 0.48 lb ai of lambda-cyhalothrin containing products or 0.2 lb ai of chlorantraniliprole-containing products per acre per year. See label for grazing and forage restrictions.
	methomyl	*Lannate LV, *Lannate SP	0 (ears) 3 (forage) 21 (stover)	Certain hybrids are susceptible to methomyl injury. Treat a small area to determine crop safety before full-scale spraying. Allow at least 1 day between treatments.
	0.06–0.12 lb methoxyfenozide	4.0–16.0 fl oz Intrepid 2F	3 (ears, green chop) 21 (fodder)	For early season (first-generation) infestations, direct application at the whorl. For mid- and late-season (second-generation) infestations, broadcast over the row. Do not exceed 16.0 fl oz/a per application or 64.0 fl oz/a (1.0 lb ai/a) per season.
novaluron	6.0–12.0 fl oz Rimon 0.83EC	1	Do not apply more than 60.0 fl oz/a per season.	
0.1–0.2 lb permethrin	6.7–13.3 lb *Pounce 1.5G	1	Apply when eggs begin to hatch. Do not apply more than 0.8 lb ai/a per season.	
permethrin	consult label	1	Several formulations; see label for rate.	
spinetoram	3.0–6.0 fl oz Radiant SC	1 (food) 3 (forage, fodder)	Do not make more than 6 applications per crop. Do not exceed 0.281 lb ai/a per season. Wait at least 4 days between treatments.	

\*Restricted-use pesticide.

*(continued)*

Pea

Pepper

Potato

Pumpkin & squash

Sweet corn

Table beet

Tomato

## Insect control in sweet corn *(continued)*

	Insect	Rate/a of active ingredient	Rate/a of commercial product	Days to harvest	Remarks and suggestions
Pea	<b>European corn borer</b> <i>(cont.)</i>	spinosad	1.67–3.3 fl oz Blackhawk 1.5–6.0 fl oz Entrust SC	1 (grain) 7 (forage) 28 (fodder)	Time applications of Blackhawk to coincide with peak egg hatch of each generation. A 5- to 7-day re-treatment schedule may be necessary if the crop is growing rapidly or if there is heavy pest pressure. Do not apply more than a total of 0.45 lb ai of spinosad (20.0 fl oz of Blackhawk or 29.0 fl oz of Entrust SC). Do not make more than 6 applications per calendar year.
Pepper		zeta-cypermethrin	3.0–4.3 fl oz *Mustang	3	A maximum of 25.8 oz of product or 0.3 lb ai/a per season may be applied.
		0.0175–0.025 lb zeta-cypermethrin	2.8–4.0 oz *Mustang Maxx	3	Do not exceed 24.0 oz/a Mustang Maxx (0.15 lb ai/a) per season.
Potato		zeta-cypermethrin + bifenthrin	*Hero, *Hero EW (rates vary by formulation)	3	Do not exceed 0.266 lb ai/a per season. Refer to maximum usage tables when applying more than one product containing zeta-cypermethrin and/or bifenthrin.
		zeta-cypermethrin + chlorpyrifos	9.25–11.75 fl oz *Stallion	21	For control before the larva bores into the plant stalk or ear. A maximum of 11.75 fl oz of product may be applied per acre (0.025 lb/a zeta-cypermethrin + 0.25 lb/a chlorpyrifos). Refer to the maximum usage tables on the label when applying more than one product containing either zeta-cypermethrin or chlorpyrifos to this crop.
Pumpkin & squash	<b>Grass-hoppers</b>	<i>Treat fencerows adjacent to cornfields to prevent injury.</i>			
		0.018–0.025 lb alpha-cypermethrin	2.8–3.8 fl oz *Fastac CS, *Fastac EC	3	Do not apply more than 11.4 fl oz (0.075 lb ai)/a per season.
		0.016–0.022 lb beta-cyfluthrin	2.0–2.8 fl oz *Baythroid XL	0	Do not exceed 28.0 fl oz/a (0.22 lb ai/a) per season.
		0.033–0.10 lb bifenthrin	2.1–6.4 fl oz *Brigade 2EC	1	Do not exceed 12.8 fl oz/a (0.2 lb ai/a) per season. Do not graze or use treated crops for feed within 1 day of last application.
Sweet corn		chlorantraniliprole	2.0–5.0 fl oz Coragen	1	Do not make more than 4 applications per crop season and allow at least 1 day between applications. Do not apply more than 15.4 fl oz/a Coragen or 0.2 lb/a of chlorantraniliprole-containing products per season.
Table beet		0.25–0.50 lb chlorpyrifos	0.5–1.0 pt *Lorsban Advanced	21	Do not make more than 3 applications of any product containing chlorpyrifos per season. Do not apply more than 6.38 pt/a Lorsban (3.0 lb ai/a) per season. Do not make a sequential application of a chlorpyrifos-containing product within 10 days of previous application.
Tomato		chlorpyrifos + lambda-cyhalothrin	6.0–13.0 fl oz *Cobalt Advanced	21	Do not exceed 129.0 fl oz Cobalt Advanced (2.5 lb ai chlorpyrifos and 0.13 lb ai lambda-cyhalothrin) per acre per season. Do not make more than 3 applications of Cobalt Advanced or other products containing chlorpyrifos per season.

\*Restricted-use pesticide.

*(continued)*

**Insect control in sweet corn** (continued)

Insect	Rate/a of active ingredient	Rate/a of commercial product	Days to harvest	Remarks and suggestions
<b>Grass-hoppers</b> (cont.)	0.012–0.018 lb deltamethrin	1.0–1.5 fl oz *Delta Gold 1.5EC	1 (ear, grazing) 21 (stover)	Do not exceed 38.4 fl oz/a per season. See label for grazing and feed restrictions.
	0.03–0.05 lb esfenvalerate	5.8–9.6 fl oz *Asana XL	1	Do not exceed 0.5 lb ai/a per season.
	0.01–0.015 lb gamma-cyhalothrin	2.56–3.84 oz *Proaxis	1	Do not apply more than 3.84 pt/a (0.24 lb ai/a) per season. See label for grazing and forage use restrictions.
		1.02–1.54 fl oz *Declare	1	Do not apply more than 1.54 pt/a per crop. See label for grazing and forage use restrictions.
	0.02–0.03 lb lambda-cyhalothrin	1.28–1.92 fl oz *Warrior II	1	Do not exceed 0.48 lb ai/a. See label for grazing and forage feed restrictions.
	lambda-cyhalothrin + chlorantraniliprole	6.0–10.0 fl oz *Besiege	1	Do not apply more than 31.0 fl oz of Besiege or 0.48 lb ai of lambda-cyhalothrin containing products or 0.2 lb ai of chlorantraniliprole-containing products per acre per year. See label for grazing and forage restrictions.
	novaluron	6.0–12.0 fl oz Rimon 0.83EC	1	Nymphs only. Do not apply more than 60.0 fl oz/a per season.
	zeta-cypermethrin	3.0–4.3 fl oz *Mustang	3	A maximum of 25.8 oz of product or 0.3 lb ai/a per season may be applied.
	0.0175–0.025 lb zeta-cypermethrin	2.8–4.0 fl oz *Mustang Maxx	3	Do not exceed 24.0 oz/a Mustang Maxx (0.15 lb ai/a) per season.
	zeta-cypermethrin + bifenthrin	*Hero, *Hero EW (rates vary by formulation)	3	Do not exceed 0.266 lb ai/a per season. Refer to maximum usage tables when applying more than one product containing zeta-cypermethrin and/or bifenthrin.
zeta-cypermethrin + chlorpyrifos	9.25–11.75 fl oz *Stallion	21	A maximum of 11.75 fl oz of product may be applied per acre (0.025 lb/a zeta-cypermethrin + 0.25 lb/a chlorpyrifos). Refer to the maximum usage tables on the label when applying more than one product containing either zeta-cypermethrin or chlorpyrifos to this crop.	
<b>Rootworm larvae</b>	<p><i>Spread insecticide granules or spray in a 7-inch band over the corn row in front of the packing wheel. Only chlorethoxyfos, chlorpyrifos, tebufos, and terbufos may be placed in the seed furrows. <b>Cover spilled granules with soil to reseed magdude chance of bird and mammal exposure.</b></i></p> <p><i>For postemergence row treatment, *Counter, Lorsban, or *Thimet granules can be applied at the base of stalks with a cultivator applicator at labeled rates and covered lightly with soil. This treatment should be made by mid-June and is suggested only as a rescue treatment because dry weather following application can limit insecticide activation giving marginal control. Planting time treatments are preferred.</i></p>			
	bifenthrin	0.39–0.98 fl oz/1,000 ft row *Capture LFR		Apply as a 5- to 7-inch T-band. Do not apply more than 0.2 lb ai/a per season as an at-plant application.
	0.0046 lb bifenthrin/1,000 ft row	0.30 fl oz/1,000 ft row *Brigade 2EC	30	Apply as a 5- to 7-inch T-band. Do not apply more than 0.1 lb ai/a per season as an at-plant application.
	0.1–0.2 lb bifenthrin	0.46–0.92 fl oz/1,000 ft row *Capture 3RIVE 3D		Do not apply more than 0.2 lb ai/a per season.
	chlorethoxyfos	3.0–5.0 oz *SmartChoice/ 1,000 ft row	at-plant only	Do not apply as a surface band.

\*Restricted-use pesticide.

(continued)

Pea

Pepper

Potato

Pumpkin & squash

Sweet corn

Table beet

Tomato

## Insect control in sweet corn *(continued)*

Insect	Rate/a of active ingredient	Rate/a of commercial product	Days to harvest	Remarks and suggestions		
Pea	<b>Rootworm larvae (cont.)</b>	1.3 lb chlorpyrifos	8.0 oz Lorsban 15G/1,000 ft row	21	Do not exceed 8.0 oz/1,000 ft of row (1.3 lb ai/a) at planting. Do not make more than 3 applications of any product containing chlorpyrifos per season. Do not exceed 3.0 lb ai/a chlorpyrifos per season.	
	Pepper		1.25 mg clothianidin/seed	5.64 fl oz Poncho 600/80,000 seeds	seed treatment	Purchase treated seed from seed dealer or seed treatment representative. Do not use treated seed for food, feed, or oil production.
			phorate	4.5–6.0 oz *Thimet 20-G/1,000 ft row	30	Apply in a 7-inch band. Do not use in furrow.
			tebupirimphos + cyfluthrin	*Aztec 2.1 G, *Aztec 4.67 G, *Aztec HC (consult label for rate)		Apply in 7-inch band or seed furrow. Within 20 yards of aquatic areas, make in-furrow applications only.
	Potato		tefluthrin	4.0–5.0 oz *Force 3G/1,000 ft row 0.46–0.57 oz *Force CS/1,000 ft row		Apply in 7-inch band or seed furrow.
			terbufos	*Counter 15G, *Counter 20G (consult label for rate)	60	If application is made at planting, do not apply postemergence or at cultivation. <b>Do not use</b> ALS-inhibiting herbicides if using Counter at planting.
			thiamethoxam	Cruiser (see label for rate)	seed treatment	Early season protection. Purchase treated seed from seed dealer or seed treatment representative.
Pumpkin & squash	<b>Rootworm beetle</b>	<i>Treat if five or more beetles per plant (check silks) before 75% silking, and silks are being pruned to within 1/2 inch of the husk.</i>				
		acetamiprid	Assail, several formulations (see label for rate)	1–7 (dependent on rate)	Do not exceed a total of 0.21 lb ai (11.2 oz)/a per growing season.	
Sweet corn		0.014–0.025 lb alpha-cypermethrin	2.2–3.8 fl oz *Fastac CS, *Fastac EC	3	Do not apply more than 11.4 fl oz (0.075 lb ai)/a per season.	
		0.013–0.022 lb beta-cyfluthrin	1.6–2.8 fl oz *Baythroid XL	0	Do not exceed 28.0 fl oz/a (0.22 lb ai/a) per season.	
		0.033–0.10 lb bifenthrin	2.1–6.4 fl oz *Brigade 2EC	1	Do not exceed 12.8 fl oz/a (0.2 lb ai/a) per season. Do not graze or use crops for feed within 1 day of last treatment.	
		carbaryl	1.0–2.0 qt Sevin XLR Plus	2 (ears) 14 (forage) 48 (fodder)	Highly toxic to bees; see label for details. Do not exceed 16.0 qt/a per season. Hand harvesting is prohibited.	
		1.0 lb chlorpyrifos	1.0–2.0 pt *Lorsban Advanced	21	Do not make more than 3 applications of any product containing chlorpyrifos per season. Do not apply more than 6.38 pt/a (3.0 lb ai/a) per season. Do not make a sequential application of a chlorpyrifos-containing product within 10 days of previous application.	
Table beet		chlorpyrifos + lambda-cyhalothrin	11.0–26.0 fl oz *Cobalt Advanced	21	Do not exceed 129.0 fl oz Cobalt Advanced (2.5 lb ai chlorpyrifos and 0.13 lb ai lambda-cyhalothrin) per acre per season. Do not make more than 3 applications of Cobalt Advanced or other products containing chlorpyrifos per season.	
	Tomato					

\*Restricted-use pesticide.

*(continued)*

**Insect control in sweet corn** (continued)

Insect	Rate/a of active ingredient	Rate/a of commercial product	Days to harvest	Remarks and suggestions
<b>Rootworm beetle</b> (cont.)	0.018–0.028 lb deltamethrin	1.5–2.4 fl oz *Delta Gold 1.5EC	1 (ear, grazing) 21 (stover)	Do not exceed 38.4 fl oz/a (0.45 lb ai/a) per season. See label for grazing and feed restrictions.
	0.03–0.05 lb esfenvalerate	5.8–9.6 fl oz *Asana XL	1	Do not exceed 0.5 lb ai/a per season.
	0.01–0.015 lb gamma-cyhalothrin	2.56–3.84 oz *Proaxis	1	Do not exceed 3.84 pt/a (0.24 lb ai/a) per season. See label for grazing and forage use restrictions.
		1.02–1.54 fl oz *Declare	1	Do not apply more than 1.54 pt/a per crop. See label for grazing and forage use restrictions.
	0.02–0.03 lb lambda-cyhalothrin	1.28–1.92 fl oz *Warrior II	1	Do not exceed 0.48 lb ai/a. See label for grazing and forage feed restrictions.
	lambda-cyhalothrin + chlorantraniliprole	6.0–9.0 fl oz *Besiege	1	Do not apply more than 31.0 fl oz of Besiege or 0.48 lb ai of lambda-cyhalothrin containing products or 0.2 lb ai of chlorantraniliprole-containing products per acre per year.
	methomyl	*Lannate LV, *Lannate SP	0 (ears) 3 (forage) 21 (stover)	Certain hybrids are susceptible to methomyl injury. Treat a small area to determine crop safety before full-scale spraying. Allow at least 1 day between treatments.
	permethrin	consult label	1	Several formulations; see label for rate.
	zeta-cypermethrin	2.4–4.3 fl oz *Mustang	3	A maximum of 25.8 oz of product or 0.3 lb ai/a per season may be applied.
	0.014–0.025 lb zeta-cypermethrin	2.24–4.0 fl oz *Mustang Maxx	3	Do not exceed 24.0 oz/a Mustang Maxx (0.15 lb ai/a) per season.
zeta-cypermethrin + bifenthrin	*Hero, *Hero EW (rates vary by formulation)	3	Do not exceed 0.266 lb ai/a per season. Refer to maximum usage tables when applying more than one product containing zeta-cypermethrin and/or bifenthrin.	
zeta-cypermethrin + chlorpyrifos	9.25–11.75 fl oz *Stallion	21	A maximum of 11.75 fl oz of product may be applied per acre (0.025 lb/a zeta-cypermethrin + 0.25 lb/a chlorpyrifos). Refer to the maximum usage tables on the label when applying more than one product containing either zeta-cypermethrin or chlorpyrifos to this crop.	
<b>Sap (picnic) beetles</b>	acetamiprid	Assail, several formulations (see label for rate)	1–7 (dependent on rate)	Do not exceed a total of 0.21 lb ai (11.2 oz)/a per growing season.
	0.014–0.025 lb alpha-cypermethrin	2.2–3.8 fl oz *Fastac CS, *Fastac EC	3	Do not apply more than 11.4 fl oz (0.075 lb ai)/a per season.
	0.033–0.10 lb bifenthrin	2.1–6.4 fl oz *Brigade 2EC	1	Do not exceed 12.8 fl oz/a (0.2 lb ai/a) per season. Do not graze or use treated crops for feed within 1 day of last application.
	carbaryl	1.0–2.0 qt Sevin XLR Plus	2 (ears) 14 (forage) 48 (fodder)	Highly toxic to bees; see label for details. Do not exceed 16.0 qt/a per season.

\*Restricted-use pesticide.

(continued)

Pea

Pepper

Potato

Pumpkin & squash

Sweet corn

Table beet

Tomato

## Insect control in sweet corn *(continued)*

	Insect	Rate/a of active ingredient	Rate/a of commercial product	Days to harvest	Remarks and suggestions
Pea	<b>Sap (picnic) beetles</b> <i>(cont.)</i>	chlorpyrifos + lambda-cyhalothrin	16.0–38.0 fl oz *Cobalt Advanced	21	Do not exceed 129.0 fl oz Cobalt Advanced (2.5 lb ai chlorpyrifos and 0.13 lb ai lambda-cyhalothrin) per acre per season. Do not make more than 3 applications of Cobalt Advanced or other products containing chlorpyrifos per season.
		0.03–0.05 lb esfenvalerate	5.8–9.6 fl oz *Asana XL	1	Do not exceed 0.5 lb ai/a per season.
Pepper		0.01–0.015 lb gamma-cyhalothrin	2.56–3.84 oz *Proaxis	1	Do not apply more than 3.84 pt/a (0.24 lb ai/a) per season. See label for grazing and forage use restrictions.
			1.02–1.54 fl oz *Declare	1	Do not apply more than 1.54 pt/a per crop. See label for grazing and forage use restrictions.
Potato		0.02–0.03 lb lambda-cyhalothrin	1.28–1.92 fl oz *Warrior II	1	Do not exceed 0.48 lb ai/a. See label for grazing and forage feed restrictions.
		lambda-cyhalothrin + chlorantraniliprole	6.0–10.0 fl oz *Besiege	1	Do not apply more than 31.0 fl oz of Besiege or 0.48 lb ai of lambda-cyhalothrin containing products or 0.2 lb ai of chlorantraniliprole-containing products per acre per year. See label for grazing and forage restrictions.
Pumpkin & squash		methomyl	*Lannate LV, *Lannate SP (rates vary by formulation)	0 (ears) 3 (forage) 21 (stover)	Certain hybrids are susceptible to methomyl injury. Treat a small area to determine crop safety before full-scale spraying. Allow at least 1 day between treatments.
		novaluron	6.0–12.0 fl oz Rimon 0.83EC	1	Apply when adults first appear and prior to egg hatch. Do not apply more than 60.0 fl oz/a per season.
Sweet corn		zeta-cypermethrin	2.4–4.3 fl oz *Mustang	3	A maximum of 25.8 oz of product or 0.3 lb ai/a per season may be applied.
		0.014–0.025 lb zeta-cypermethrin	2.24–4.0 fl oz *Mustang Maxx	3	Do not exceed 24.0 oz/a Mustang Maxx (0.15 lb ai/a) per season.
Table beet		zeta-cypermethrin + bifenthrin	*Hero, *Hero EW (rates vary by formulation)	3	Do not exceed 0.266 lb ai/a per season. Refer to maximum usage tables when applying more than one product containing zeta-cypermethrin and/or bifenthrin.
		zeta-cypermethrin + chlorpyrifos	9.25–11.75 fl oz *Stallion	21	A maximum of 11.75 fl oz of product may be applied per acre (0.025 lb/a zeta-cypermethrin + 0.25 lb/a chlorpyrifos). Refer to the maximum usage tables on the label when applying more than one product containing either zeta-cypermethrin or chlorpyrifos to this crop.
Tomato	<b>Seed maggots</b>	0.12–0.16 lb beta-cyfluthrin	2.0–2.8 oz *Baythroid XL/1,000 ft row	0	Do not exceed 28.0 fl oz/a (0.22 lb ai/a) per season.
		bifenthrin	0.2–0.78 fl oz/1,000 ft row *Capture LFR		Apply as a 5- to 7-inch T-band. Do not apply more than 0.2 lb ai/a per season as an at-plant application.
		0.0023–0.0046 lb bifenthrin/1,000 ft row	0.15–0.30 fl oz/1,000 ft row (several formulations available)	30	Apply as a 5- to 7-inch band treatment over open seed furrow.
		0.05–0.2 lb bifenthrin	0.23–0.92 fl oz/1,000 ft row *Capture 3RIVE 3D		Do not apply more than 0.2 lb ai/a per season.

\*Restricted-use pesticide.

*(continued)*

**Insect control in sweet corn** (continued)

Insect	Rate/a of active ingredient	Rate/a of commercial product	Days to harvest	Remarks and suggestions	
<b>Seed maggots</b> (cont.)	chlorethoxyfos	3.0–5.0 oz *SmartChoice/ 1,000 ft row	at-plant only	Do not apply as a surface band.	
	1.3 lb chlorpyrifos	8.0 oz Lorsban 15G/1,000 ft row	21	Do not exceed 8.0 oz/1,000 ft row (1.3 lb ai/a) at-plant. Do not make more than 3 applications of a chlorpyrifos-containing product/season. Do not exceed 3.0 lb ai/a chlorpyrifos per season.	
	chlorpyrifos + lambda-cyhalothrin	2.87 fl oz *Cobalt Advanced/ 1,000 ft row	21	Do not exceed 129.0 fl oz Cobalt Advanced (2.5 lb ai chlorpyrifos and 0.13 lb ai lambda-cyhalothrin) per acre per season. Do not make more than 3 applications of Cobalt Advanced or other products containing chlorpyrifos per season.	
	0.25–0.50 mg clothianidin/kernel	1.13–2.26 fl oz Poncho 600/80,000 seeds	seed treatment	Early season protection. Purchase treated seed from seed dealer or seed treatment representative.	
	0.25–0.50 mg clothianidin/seed, <i>Bacillus firmus</i>	1.35–2.7 fl oz Poncho/ VOTIVO/80,000 seeds	seed treatment	Purchase treated seed from seed dealer or seed treatment representative. Also used for nematode management. Pretest for compatibility with other seed treatments. Do not use treated seed for food, feed, or oil production.	
	3.2–6.4 fl oz imidacloprid/100 lb seed	3.2–6.4 fl oz Gaucho 600/100 lb seed	seed treatment	Purchase treated seed from seed dealer or seed treatment representative.	
	permethrin	1.5 oz Kernel Guard Supreme/42 lb seed	seed treatment	Planter box treatment.	
	phorate	4.5–6.0 oz *Thimet 20-G/1,000 ft row	30	Apply in 7-inch band over the row. Do not use in-furrow application.	
	tebupirimphos + cyfluthrin	*Aztec 2.1 G, *Aztec 4.67 G, *Aztec HC (consult label for rate)		Apply in 7-inch band or seed furrow. Within 20 yards of aquatic areas, make in-furrow applications only.	
	tefluthrin	4.0–5.0 oz *Force 3G/1,000 ft row 0.46–0.57 oz *Force CS/1,000 ft row		Apply in 7-inch band or seed furrow.	
	terbufos	*Counter 15G, *Counter 20G (consult label for rate)	60	If application is made at planting, do not apply postemergence or at cultivation. ALS-inhibiting herbicides <b>should not</b> be used if Counter has been applied to corn at the time of planting.	
	thiamethoxam	Cruiser 5FS (see label for rate)	seed treatment	Early season protection. Purchase treated seed from seed dealer or seed treatment representative.	
	<b>Stalk borers</b>	<i>Small corn is most susceptible to injury. Control is most effective when larvae are small and before wilted plants are common. Begin scouting border rows at 1300–1400 degree days (DD). The Wisconsin Crop Manager newsletter and DATCP's Pest Survey Bulletin provide degree day information (base 41°F) during the stalk borer season. Iowa State University studies indicate that 10% of the larvae move into corn from adjacent host weeds by 1400 DD and 50% will have migrated by 1700 DD. Larvae originating within the field from last year's weed patches will damage corn earlier. Map weedy areas during fall harvest so that you can check them the following year, starting at about 900–1000 DD.</i>			
	0.013–0.022 lb beta-cyfluthrin	1.6–2.8 fl oz *Baythroid XL	0	Application must be made before larvae bore into the plant. Do not exceed 28.0 fl oz/a (0.22 lb ai/a) per season.	
0.05–0.2 lb bifenthrin	0.23–0.92 fl oz/1,000 ft row *Capture 3RIVE 3D		Do not apply more than 0.2 lb ai/a per season.		

\*Restricted-use pesticide.

(continued)

Pea

Pepper

Potato

Pumpkin &  
squash

Sweet corn

Table beet

Tomato

## Insect control in sweet corn *(continued)*

	Insect	Rate/a of active ingredient	Rate/a of commercial product	Days to harvest	Remarks and suggestions
Pea	<b>Stalk borers</b> <i>(cont.)</i>	1.0 lb chlorpyrifos	2.0 pt *Lorsban Advanced	21	Do not apply more than 6.38 pt/a (3.0 lb ai/a) per season. Do not make more than 3 applications of any chlorpyrifos-containing product per season, including granular application of chlorpyrifos at-plant.
Pepper		chlorpyrifos + lambda-cyhalothrin	16.0–38.0 fl oz *Cobalt Advanced	21	Do not exceed 129.0 fl oz Cobalt Advanced (2.5 lb ai chlorpyrifos and 0.13 lb ai lambda-cyhalothrin) per acre per season. Do not make more than 3 applications of Cobalt Advanced or other products containing chlorpyrifos per season.
Potato		0.018–0.028 lb deltamethrin	1.5–2.4 fl oz *Delta Gold 1.5EC	1 (ear, grazing) 21 (stover)	Apply to early instar larvae before they bore into stalks. Do not exceed 38.4 fl oz/a (0.45 lb ai/a) per season. See label for grazing and feed restrictions.
		0.03–0.05 lb esfenvalerate	5.8–9.6 fl oz *Asana XL	1	Do not exceed 0.5 lb ai/a per season.
		flubendiamide	2.0–3.0 fl oz Belt SC	1	Do not apply more than 12.0 fl oz/a (0.375 lb ai/a) per crop season. See label for grazing and forage restrictions.
		0.01–0.015 lb gamma-cyhalothrin	2.56–3.84 oz *Proaxis	1	Do not exceed 3.84 pt/a (0.24 lb ai/a) per season. See label for grazing and forage use restrictions.
			1.02–1.54 fl oz *Declare	1	Do not apply more than 1.54 pt/a per crop. See label for grazing and forage use restrictions.
Pumpkin & squash		0.02–0.03 lb lambda-cyhalothrin	1.28–1.92 fl oz *Warrior II	1	Use higher rates for large larvae. Do not apply more than 0.48 lb ai/a per crop. See label for grazing and forage feed restrictions.
Sweet corn		lambda-cyhalothrin + chlorantraniliprole	6.0–10.0 fl oz *Besiege	1	Do not apply more than 31.0 fl oz of Besiege or 0.48 lb ai of lambda-cyhalothrin containing products or 0.2 lb ai of chlorantraniliprole-containing products per acre per year. See label for grazing and forage restrictions.
		0.1–0.2 lb permethrin	consult label	1	See label for rate.
		zeta-cypermethrin + bifenthrin	*Hero, *Hero EW (rates vary by formulation)	3	Do not exceed 0.266 lb ai/a per season. Refer to maximum usage tables when applying more than one product containing zeta-cypermethrin and/or bifenthrin.
Table beet		zeta-cypermethrin + chlorpyrifos	9.25–11.75 fl oz *Stallion	21	A maximum of 11.75 fl oz of product may be applied per acre (0.025 lb/a zeta-cypermethrin + 0.25 lb/a chlorpyrifos). Refer to the maximum usage tables on the label when applying more than one product containing either zeta-cypermethrin or chlorpyrifos to this crop.
Tomato	<b>Two-spotted spider mite</b>	bifenthrin	several formulations (see labels for rates)	1	Do not exceed 0.20 lb ai/a per season.
		0.01–0.015 gamma-cyhalothrin	1.02–1.54 fl oz *Declare 2.56–3.84 fl oz *Proaxis	1	Do not apply more than 0.24 lb ai/a per crop.

\*Restricted-use pesticide.

*(continued)*

**Insect control in sweet corn** (continued)

Insect	Rate/a of active ingredient	Rate/a of commercial product	Days to harvest	Remarks and suggestions
<b>Two-spotted spider mite</b> (cont.)	0.02–0.03 lb lambda-cyhalothrin	1.28–1.92 fl oz *Warrior II	1	For suppression only. Do not exceed 0.48 lb ai/a per season. See label for resistance statement plus grazing and forage feed restrictions.
	lambda-cyhalothrin + chlorantraniliprole	6.0–10.0 fl oz *Besiege	1	Do not apply more than 31.0 fl oz of Besiege or 0.48 lb ai of lambda-cyhalothrin containing products or 0.2 lb ai of chlorantraniliprole containing products per acre per year. See label for grazing and forage restrictions.
	spiromesifen	Oberon 2 SC, Oberon 4 SC (rates vary by formulation)	5 (ear, green forage, silage) 30 (stover)	Consult labels for plantback restrictions and rate restrictions.
<b>Western bean cutworm</b>	<i>Western bean cutworm (WBC) moth flight begins late June to early July, depending on location and temperatures. Pheromone traps should be in place throughout Wisconsin by July 1 each year to detect first moth emergence in your area.</i>			
	<i>WBC pheromone traps placed at or near sweet corn fields is the best indicator of when to start scouting. Begin scouting as soon as first moth is captured in pheromone trap. Alternatively, using the WBC phenology model, begin scouting sweet corn no later than 1,320 degree-days (Base 50F) when 25% of moth population will be in flight. Egg laying will peak at 50% emergence (1,422 degree-days).</i>			
	<i>Scout sweet corn for WBC egg masses and small larvae BEFORE larvae enter the ear. Sample five areas throughout field, 20 plants at each location, for a representative 100-plant sample. Continue to scout sweet corn fields throughout moth flight until trap captures diminish. There is one generation per year, and only one moth flight.</i>			
	<i>Treatment threshold for sweet corn is 4% field infestation with egg masses and/or small larvae.</i>			
	<i>For more information on WBC pheromone trapping and scouting in-season, please refer to the Wisconsin Crop Manager newsletter (<a href="http://ipcm.wisc.edu/wcm">ipcm.wisc.edu/wcm</a>) and the Wisconsin Pest Bulletin (<a href="http://pestbulletin.wi.gov">pestbulletin.wi.gov</a>).</i>			
	<i>Bacillus thuringiensis</i>	Agree WG, Biobit, DiPel, Javelin, others (see label for rates)	0	Treat when plants first exhibit feeding signs in the whorl or leaves. If mature worms or heavy populations are present, a contact insecticide should be used to enhance control.
	0.013–0.022 lb beta-cyfluthrin	1.6–2.8 fl oz *Baythroid XL	0	Do not exceed 28.0 fl oz/a (0.22 lb ai/a) per season.
	0.033–0.10 lb bifenthrin	2.1–6.4 fl oz *Brigade 2EC	1	Do not exceed 12.8 fl oz/a (0.2 lb ai/a) per season.
	carbaryl	2.0 qt. Sevin XLR Plus	2 (ears)	Highly toxic to bees; see label for details. Do not exceed 16.0 qt/a per season. Hand harvesting is prohibited.
	chlorantraniliprole	3.5–7.5 fl oz Coragen	1	Do not make more than 4 applications per crop season and allow at least 1 day between applications. Do not apply more than 15.4 fl oz/a Coragen or 0.2 lb/a of chlorantraniliprole-containing products per season.
0.5–1.0 lb chlorpyrifos	1.0–2.0 pt *Lorsban Advanced	21	Do not make more than 3 applications of any product containing chlorpyrifos per season. Do not apply more than 6.38 pt/a Lorsban (3.0 lb ai/a) per season. Do not make a sequential application of a chlorpyrifos-containing product within 10 days of previous application.	

\*Restricted-use pesticide.

(continued)

Pea

Pepper

Potato

Pumpkin & squash

Sweet corn

Table beet

Tomato

## Insect control in sweet corn *(continued)*

	Insect	Rate/a of active ingredient	Rate/a of commercial product	Days to harvest	Remarks and suggestions
Pea	<b>Western bean cutworm</b> ( <i>cont.</i> )	chlorpyrifos + lambda-cyhalothrin	11.0–26.0 fl oz *Cobalt Advanced	21	Do not exceed 129.0 fl oz Cobalt Advanced (2.5 lb ai chlorpyrifos and 0.13 lb ai lambda-cyhalothrin) per acre per season. Do not make more than 3 applications of Cobalt Advanced or other products containing chlorpyrifos per season.
		0.015–0.03 lb esfenvalerate	2.9–5.8 fl oz *Asana XL	1	Do not exceed 0.5 lb ai/a per season.
Pepper		flubendiamide	2.0–3.0 fl oz Belt SC	1	Do not apply more than 12.0 fl oz/a (0.375 lb ai/a) per crop season. See label for grazing and forage use restrictions.
		0.01–0.015 lb gamma-cyhalothrin	2.56–3.85 fl oz *Proaxis	1	For control of small larvae. Do not apply more than 3.84 pt/a (0.24 lb ai/a) per season. See label for grazing and forage use restrictions.
Potato			1.02–1.54 fl oz *Declare	1	Do not apply more than 1.54 pt/a per crop. See label for grazing and forage use restrictions.
		0.02–0.03 lb lambda-cyhalothrin	1.28–1.92 fl oz *Warrior II	1	Do not apply more than 0.48 lb ai/a per crop.
		lambda-cyhalothrin + chlorantraniliprole	6.0–10.0 fl oz *Besiege	1	Do not apply more than 31.0 fl oz of Besiege or 0.48 lb ai of lambda-cyhalothrin containing products or 0.2 lb ai of chlorantraniliprole-containing products per acre per year. See label for grazing and forage use restrictions.
Pumpkin & squash		0.06–0.12 lb methoxyfenozide	4.0–16.0 fl oz Intrepid 2F	3 (ears, green chop) 21 (fodder)	Do not exceed 16.0 fl oz/a per application or 64.0 fl oz/a (1.0 lb ai/a) per season.
		0.023–0.047 lb spinetoram	3.0–6.0 fl oz Radiant SC	1 (ear) 3 (forage, fodder)	Do not make more than 6 applications per crop or exceed 0.281 lb ai/a per season. Wait at least 4 days between treatments.
Sweet corn		spinosad	2.2–3.3 fl oz Blackhawk 3.0–6.0 fl oz Entrust SC	1 (grain) 7 (forage) 28 (fodder)	Do not apply more than a total of 0.45 lb ai of spinosad (20.0 fl oz of Blackhawk or 29.0 fl oz of Entrust SC). Do not make more than 6 applications per calendar year.
		zeta-cypermethrin + bifenthrin	*Hero, *Hero EW (rates vary by formulation)	3	Do not exceed 0.266 lb ai/a per season. Refer to maximum usage tables when applying more than one product containing zeta-cypermethrin and/or bifenthrin.
Table beet		zeta-cypermethrin + chlorpyrifos	5.0–11.75 fl oz *Stallion	21	For control before the larva bores into the ear. A maximum of 11.75 fl oz of product may be applied per acre (0.025 lb/a zeta-cypermethrin + 0.25 lb/a chlorpyrifos). Refer to the maximum usage tables on the label when applying more than one product containing either zeta-cypermethrin or chlorpyrifos to this crop.
Tomato	<b>White grubs</b>	0.14–0.16 lb beta-cyfluthrin	2.5–2.8 oz *Baythroid XL/1,000 ft row	0	Apply in 7-inch band or in seed furrow. Do not exceed 0.22 lb ai/a per season.
		0.0023–0.0046 lb bifenthrin/1,000 ft row	0.15–0.30 fl oz/1,000 ft row (several formulations available)	30	Apply as a 5- to 7-inch band treatment over open seed furrow. Do not apply more than 0.10 lb ai/a per season as an at-plant application.

\*Restricted-use pesticide.

(*continued*)

**Insect control in sweet corn** (continued)

Insect	Rate/a of active ingredient	Rate/a of commercial product	Days to harvest	Remarks and suggestions
<b>White grubs</b> (cont.)	0.04–0.08 lb bifenthrin	0.2–0.78 fl oz/1,000 ft row *Capture LFR	30	Apply as a 5- to 7-inch T-band treatment over open seed furrow. Do not apply more than 0.20 lb ai/a per season as an at-plant application.
	0.05–0.2 lb bifenthrin	0.23–0.92 fl oz/1,000 ft row *Capture 3RIVE 3D		Do not apply more than 0.2 lb ai/a per season.
	chlorethoxyfos	3.0–5.0 oz *SmartChoice/ 1,000 ft row	at-plant only	Do not apply as a surface band.
	1.3 lb chlorpyrifos	8.0 oz Lorsban 15G/1,000 ft row	21	Do not make more than 3 applications of any product containing chlorpyrifos per season. Do not apply more than 8.0 oz/1,000 ft row or 1.3 lb ai/a at-plant. Do not exceed 3.0 lb/a chlorpyrifos per season.
	chlorpyrifos + lambda-cyhalothrin	2.87 fl oz *Cobalt Advanced/1,000 ft row	21	Do not exceed 129.0 fl oz Cobalt Advanced (2.5 lb ai chlorpyrifos and 0.13 lb ai lambda-cyhalothrin) per acre per season. Do not make more than 3 applications of Cobalt Advanced or other products containing chlorpyrifos per season.
	0.25–0.50 mg clothianidin/kernel	1.13–2.26 fl oz Poncho 600/80,000 seeds	seed treatment	Early season protection. Purchase treated seed from seed dealer or seed treatment representative.
	0.25–0.50 mg clothianidin/seed, <i>Bacillus firmus</i>	1.35–2.7 fl oz Poncho/VOTIVO/80,000 seeds	seed treatment	Purchase treated seed from seed dealer or seed treatment representative. Also used for nematode management. Pretest for compatibility with other seed treatments. Do not use treated seed for food, feed, or oil production.
	phorate	4.5–6.0 oz *Thimet 20-G/1,000 ft row	30	Apply in 7-inch band over the row. Do not use in furrow application.
	tebupirimphos + cyfluthrin	*Aztec 2.1 G, *Aztec 4.67 G, *Aztec HC (consult label for rate)		Apply in 7-inch band over the row. Do not use in furrow application.
	tefluthrin	4.0–5.0 oz *Force 3G/1,000 ft row 0.46–0.57 oz *Force CS/1,000 ft row		Apply in 7-inch band or seed furrow. Use 0.57 fl oz Force CS per 1,000 feet of row for heavy infestations. For best wireworm and/or white grub control, apply the liquid as an in-furrow treatment.
terbufos	*Counter 15G, *Counter 20G (consult label for rate)	60	If application is made at planting, do not apply postemergence or at cultivation. ALS-inhibiting herbicides <b>should not</b> be used if Counter has been applied to corn at the time of planting.	
0.25–0.80 mg thiamethoxam/kernel	Cruiser 5FS	seed treatment	Early season protection. Purchase treated seed from seed dealer or seed treatment representative.	
<b>Wireworms</b>	0.12–0.16 lb beta-cyfluthrin	2.0–2.8 oz/1,000 ft row *Baythroid XL	0	Apply in 7-inch band or in seed furrow. Do not exceed 28.0 fl oz/a (0.22 lb ai/a) per season.
	0.0023–0.0046 lb bifenthrin/1,000 ft row	0.30 fl oz/1,000 ft row *Brigade 2EC	30	Apply as a 5- to 7-inch T-band. Do not apply more than 0.1 ai/a per season as an at-plant application.

\*Restricted-use pesticide.

(continued)

Pea

Pepper

Potato

Pumpkin & squash

Sweet corn

Table beet

Tomato

## Insect control in sweet corn *(continued)*

Insect	Rate/a of active ingredient	Rate/a of commercial product	Days to harvest	Remarks and suggestions
Wireworms (cont.)	0.04–0.08 lb bifenthrin	0.2–0.78 fl oz/1,000 ft row *Capture LFR	30	Apply as a 5- to 7-inch T-band treatment over open seed furrow. Do not apply more than 0.2 lb ai/a per season.
	0.05–0.2 lb bifenthrin	0.23–0.92 fl oz/1,000 ft row *Capture 3RIVE 3D		Do not apply more than 0.2 lb ai/a per season.
Pepper	chlorethoxyfos	3.0–5.0 oz *SmartChoice/ 1,000 ft row	at-plant only	Do not apply as a surface band.
	1.3 lb chlorpyrifos	8.0 oz Lorsban 15G/1,000 ft row	21	Do not exceed 8.0 oz/1,000 ft row (1.3 lb ai/a) at-plant. Do not make more than 3 applications of any product containing chlorpyrifos per season. Do not apply more than 3.0 lb/a chlorpyrifos per season.
Potato	chlorpyrifos + lambda-cyhalothrin	2.87 fl oz *Cobalt Advanced/1,000 ft row	21	Do not exceed 129.0 fl oz Cobalt Advanced (2.5 lb ai chlorpyrifos and 0.13 lb ai lambda-cyhalothrin) per acre per season. Do not make more than 3 applications of Cobalt Advanced or other products containing chlorpyrifos per season.
	0.25–0.50 mg clothianidin/kernel	1.13–2.26 fl oz Poncho 600/80,000 seeds	seed treatment	Purchase treated seed from seed dealer or seed treatment representative.
Pumpkin & squash	0.25–0.50 mg clothianidin/seed, <i>Bacillus firmus</i>	1.35–2.7 fl oz Poncho/VOTiVO/80,000 seeds	seed treatment	Purchase treated seed from seed dealer or seed treatment representative. Also used for nematode management. Pretest for compatibility with other seed treatments. Do not use treated seed for food, feed, or oil production.
	3.2–6.4 fl oz imidacloprid/100 lb seed	3.2–6.4 fl oz Gaucho 600/100 lb seed	seed treatment	Early season protection. Purchase treated seed from seed dealer or seed treatment representative.
Sweet corn	permethrin	1.5 oz Kernel Guard Supreme/42 lb seed	seed treatment	Planter box treatment.
	phorate	4.5–6.0 oz *Thimet 20-G/1,000 ft row	30	Apply in 7-inch band over the row. Do not use in furrow application.
	tebupirimphos + cyfluthrin	*Aztec 2.1 G, *Aztec 4.67 G, *Aztec HC (consult label for rate)		Apply in 7-inch band or seed furrow. Within 20 yards of aquatic areas, make in-furrow applications only.
	tefluthrin	4.0–5.0 oz *Force 3G/1,000 ft row 0.46–0.57 oz *Force CS/1,000 ft row		Apply in 7-inch band or seed furrow. Use 0.57 fl oz Force CS per 1,000 feet of row for heavy infestations. For best wireworm and/or white grub control, apply the liquid as an in-furrow treatment.
	terbufos	*Counter 15G, *Counter 20G (consult label for rate)		If application is made at planting, do not apply postemergence or at cultivation. ALS-inhibiting herbicides <b>should not</b> be used if Counter has been applied to corn at the time of planting.
	0.25–0.80 mg thiamethoxam/kernel	Cruiser 5FS	seed treatment	Early season protection. Purchase treated seed from seed dealer or seed treatment representative.

\*Restricted-use pesticide.

## Weed control

Due to concern about groundwater contamination, Wisconsin has enacted atrazine rate restrictions based on surface soil texture, prior atrazine use, and geographic location relative to atrazine detections in groundwater. Wisconsin's Atrazine Rule (ATCP 30) imposes a 0.75–1.5 lb/a rate limit on atrazine use statewide. An exception is allowed for growers who find it necessary to use atrazine postemergence to “rescue” seed or sweet corn from weed competition. This exception applies only to seed and sweet corn and the total amount of atrazine used at planting and postemergence may not exceed 1.5 lb/a on coarse soils and 2.0 lb/a on medium or fine soil. In addition, atrazine use is prohibited in extensive areas of Dane County and the entire Lower Wisconsin River valley extending downstream from the Highway 60 bridge at Prairie du Sac to the confluence of the Wisconsin and Mississippi Rivers. Localized areas of Adams, Brown, Calumet, Chippewa, Columbia, Dodge, Eau Claire, Grant, Green, Green Lake, Iowa, Jackson, Juneau, Lafayette, Manitowoc, Marathon, Marinette, Marquette, Monroe, Outagamie, Pierce, Portage, Richland, Rock, St. Croix, Sauk, Trempealeau, Vernon, Walworth, Waupaca, Waushara, Winnebago, and Wood Counties have a

total prohibition on atrazine use. Contact your county Extension office for detailed maps of atrazine prohibition areas or visit [datcp.wi.gov/Environment/Water\\_Quality/Atrazine/Atrazine\\_Prohibition\\_Areas/index.aspx](http://datcp.wi.gov/Environment/Water_Quality/Atrazine/Atrazine_Prohibition_Areas/index.aspx).

The following table lists atrazine active ingredient rate limits for various management situations in Wisconsin. Be certain to reduce the use rates of atrazine and atrazine-containing products according to the Wisconsin Atrazine Rule. Wisconsin ATCP 30 also specifies that atrazine can be applied only from April 1 through July 31. It also prohibits atrazine application through irrigation systems and prohibits irrigation for 2 years after atrazine application unless such irrigation is practiced via an irrigation scheduling program that does not allow the water content of the soil in the crop root zone to exceed field moisture capacity.

### Atrazine active ingredient rate limits

Surface soil texture	Statewide atrazine limits (lb ai/a)	
	Atrazine used last year	No atrazine used last year
Coarse	0.75	0.75
Medium and fine	1.0	1.5

State and federal rules have also established setbacks for mixing, loading, and applying atrazine and atrazine-containing herbicides. Heed the following guidelines to minimize ground and surface water contamination by atrazine.

- No mixing or loading within 100 feet of wells, sinkholes, streams, lakes, or reservoirs unless such mixing or loading occurs over a spill containment pad constructed in compliance with Wisconsin ATCP 29. (Note: In Wisconsin, this rule applies for all pesticides. Federal rules require a 50-foot setback for atrazine only.)
- No application within 50 feet of a well or sinkhole or within 200 feet of the shoreline of natural or impounded lakes or reservoirs.
- No application within 66 feet of where field runoff enters streams (perennial or intermittent) and rivers.

Pea

Pepper

Potato

Pumpkin & squash

Sweet corn

Table beet

Tomato

## Weed control in sweet corn

	Weed	Active ingredient	Rate/a of commercial product	Remarks and suggestions
Pea	<b>Annual weeds</b> (soil-applied herbicides)	<i>Even where you use herbicides, shallow cultivation will help control weeds. Cultivate while both weeds and sweet corn are small. Do not cultivate when sweet corn is more than 24 inches tall or you may prune roots.</i>		
Pepper		acetochlor + safener	1.25–2.75 pt Harness 1.25–3.0 pt Surpass NXT (or equivalent)	Acetochlor provides good to excellent control of foxtails, crabgrass, and fall panicum, but will only suppress wild proso millet and has no effect on quackgrass. It controls nightshade and pigweed, suppresses lambsquarters, but several other broadleaf weeds escape control. Do not use on sands with less than 3% organic matter, on loamy sands with less than 2% organic matter, or on sandy loams with less than 1% organic matter when depth to ground water is less than 30 feet. <b>Preplant-incorporated:</b> Apply to dry soil within 2 weeks before planting and incorporate into the top 1–2 inches of soil. <b>Preemergence:</b> Apply after planting but before weed emergence.
Potato		*acetochlor + atrazine + safener	1.8–2.3 qt Harness Xtra 1.8–2.7 qt Keystone LA NXT (or equivalent)	These premixes provide good to excellent control of foxtails, crabgrass, fall panicum, and several annual broadleaf weeds, but will only suppress wild proso millet and have no effect on quackgrass. Some velvetleaf may escape. Do not use on sands with less than 3% organic matter, on loamy sands with less than 2% organic matter, or on sandy loams with less than 1% organic matter when depth to ground water is less than 30 feet. <b>Preplant-incorporated:</b> Apply to dry soil within 2 weeks before planting and incorporate into the top 1–2 inches of soil. <b>Preemergence:</b> Apply after planting but before weed emergence.
Pumpkin & squash	*alachlor	<i>preplant-incorporated:</i> 2.5–3.5 qt Micro-Tech  <i>preemergence:</i> 2.0–3.25 pt Micro-Tech	Alachlor provides good to excellent control of foxtails, crabgrass, and fall panicum, but will only suppress wild proso millet and has no effect on quackgrass. It also does not control velvetleaf and several other broadleaf weeds. Do not make postemergence applications to sweet corn. <b>Preplant-incorporated:</b> Apply to dry soil within the 7 days before planting and blend into the top 1–2 inches of soil. Provides reasonable yellow nutsedge control at 3–4 qt/a alachlor. <b>Preemergence:</b> Apply after planting but within 5 days after the last tillage for weed control. Provides only limited control of yellow nutsedge.	
Sweet corn	*alachlor + atrazine	2.5–4.0 qt Bullet or Lariat	These premixes provide good to excellent control of foxtails, crabgrass, fall panicum, and several broadleaf weeds, but they will only suppress wild proso millet and will have little effect on quackgrass. Some velvetleaf may escape. Ineffective on peat or muck soils. <b>Preplant-incorporated:</b> Apply to dry soil within the 7 days before planting, blending it into the top 1–2 inches of soil. Gives reasonable yellow nutsedge control at the higher rate. <b>Preemergence:</b> Apply after planting but within 5 days after last tillage for weed control. Provides only limited control of yellow nutsedge.	

\*Restricted-use pesticide.

(continued)

Pea

Pepper

Potato

Pumpkin & squash

Sweet corn

Table beet

Tomato

**Weed control in sweet corn** (continued)

Weed	Active ingredient	Rate/a of commercial product	Remarks and suggestions
<b>Annual weeds</b> (soil-applied herbicides) (cont.)	*atrazine	1.5–3.0 pt Atrazine 4L (or equivalent)	Many annual broadleaf weeds are controlled but permissible rates are generally inadequate for annual grass control except on very coarse-textured, low organic matter soils and when combined with rotary hoeing and/or row cultivation. Atrazine can be tank mixed with Alachlor 4EC, Dual II Magnum, Eradicane, Micro-Tech, Outlook, or Prowl/Pendimax to improve control of annual grasses. Triazine-resistant velvetleaf, common lambsquarters, smooth pigweed, and kochia are not controlled.  <b>Preplant-incorporated:</b> Work into soil within the 2 weeks before planting. Ineffective on peat or muck soils. <b>Preemergence:</b> Apply after planting but before annual weeds emerge. Ineffective on peat or muck soils.
	dimethenamid-P	10.0–21.0 fl oz Outlook 6.0	Outlook provides good to excellent control of foxtails, crabgrass, and fall panicum but will only suppress wild proso millet and has no effect on quackgrass. It also does not control velvetleaf and several other broadleaf weeds.  <b>Preplant-incorporated:</b> Apply to dry soil within 14 days before planting and blend into the top 1–2 inches of soil. Provides reasonable yellow nutsedge control at the highest rate recommended by soil type. <b>Preemergence:</b> Apply after planting but before weed emergence. Provides only limited control of yellow nutsedge. <b>Postemergence:</b> Although Outlook will not control emerged grasses, it can be applied to sweet corn up to 12 inches tall in single or sequential treatments. Do not harvest within 50 days or feed to livestock within 40 days after application.
	*dimethenamid + atrazine	2.0–3.5 pt G-Max Lite	This premix provides good to excellent control of foxtails, crabgrass, fall panicum, and several annual broadleaves but will only suppress wild proso millet and has little effect on quackgrass. Some velvetleaf may escape. It is not recommended on soils with more than 20% organic matter.  <b>Preplant-incorporated:</b> Apply to dry soil within 14 days before planting and blend into the top 1–2 inches of soil. Provides reasonable yellow nutsedge control at the higher rate for a soil type. <b>Preemergence:</b> Apply after planting but before weed emergence. Provides only limited control of yellow nutsedge. <b>Postemergence:</b> This premix can be applied to sweet corn up to 12 inches tall. Apply while broadleaf weeds are less than 1.5 inches tall and before grasses emerge. Best results are obtained when rainfall occurs within 5–7 days after this delayed application.
	mesotrione	6.0–7.7 oz Callisto	<b>Preemergence:</b> Controls many annual broadleaf weeds including lambsquarters, nightshade, pigweed, common ragweed, and velvetleaf, but not annual grasses. Callisto can be tank mixed with a preemergence grass herbicide for annual grass control. If tank mixed with a herbicide containing atrazine, the Callisto rate can be reduced to 5.0–6.0 oz/a. To avoid injury, do not apply with emulsifiable concentrate grass herbicides after corn has spiked. Do not apply if wind speed exceeds 10 mph.
	pendimethalin	% organic matter: less than 1.5%: 2.0–3.0 pt Prowl H <sub>2</sub> O more than 1.5%: 3.0–4.0 pt Prowl H <sub>2</sub> O	<b>Preemergence:</b> Apply after planting and before weeds emerge. Do not soil incorporate. Provides excellent control of foxtails, crabgrass, and fall panicum, but has no effect on quackgrass, ragweeds, and mustards. Do not use on peat or muck soils. Plant sweet corn at least 1.5 inches deep.  <b>Postemergence:</b> Will not control emerged grasses, but it can be applied postemergence for residual grass control before sweet corn reaches 24 inches tall or the 8-collar stage. Do not plant winter wheat or barley within 120 days of application.

\*Restricted-use pesticide.

(continued)

Pea

Pepper

Potato

Pumpkin & squash

Sweet corn

Table beet

Tomato

## Weed control in sweet corn *(continued)*

Weed	Active ingredient	Rate/a of commercial product	Remarks and suggestions
Annual weeds (soil-applied herbicides) <i>(cont.)</i>	pyroxasulfone + fluthiacet	5.0–13.0 fl oz Anthem depending on soil type and timing	Anthem can be used early preplant, preemergence, and early postemergence to control many annual grass and small seeded broadleaf weeds. Can be applied preplant, preplant-incorporated, preemergence, or postemergence. Rates vary by soil type, organic matter, and use timing. Do not harvest ears or harvest for forage until 40 days after application.
	s-metolachlor + safener	1.0–2.0 pt Dual II Magnum	S-metolachlor provides good to excellent control of foxtails, crabgrass, and fall panicum but will only suppress wild proso millet and has no effect on quackgrass. It does not control velvetleaf and several other annual broadleaf weeds. Ineffective on peat or muck soils.  <b>Preplant-incorporated:</b> Apply within 2 weeks before planting and blend into the top 2 inches. Treatment at 2.0 pt/a will control yellow nutsedge. Allowable rate depends on soil texture and organic matter.  <b>Preemergence:</b> Apply after planting but before weeds or sweet corn emerge. Offers limited control of yellow nutsedge.  <b>Postemergence:</b> Although s-metolachlor will not control emerged grasses, it can be applied on sweet corn up to 40 inches tall for residual grass control. Do not harvest ears for 30 days after application.
*s-metolachlor + atrazine + safener	0.9–2.2 qt Bicep Lite II	Provides good to excellent control of foxtails, crabgrass, fall panicum, and several broadleaf weeds, but will only suppress wild proso millet and has little effect on quackgrass. Some velvetleaf may escape. Ineffective on peat or muck soils.  <b>Preplant-incorporated:</b> Apply within the 2 weeks before planting and blend into top 2 inches of soil. Gives reasonable nutsedge control at the higher rate.  <b>Preemergence:</b> Apply after planting but before weeds emerge. Provides limited control of yellow nutsedge.  <b>Early postemergence:</b> Apply before weeds reach the two-leaf stage and before sweet corn is 5 inches tall. Best results when rain occurs 5–7 days after this application.	
*s-metolachlor + atrazine + mesotrione + bicyclopyrone	2.5–3.0 qt Acuron	Apply early preplant up to 28 days prior to planting or preemergence to the soil surface as a broadcast or banded application. Do not apply postemergence to sweet corn. Use the lower rate on soils with less than 3% organic matter. Not effective on soils with greater than 10% organic matter.	
s-metolachlor + mesotrione + bicyclopyrone	2.0–2.25 qt Acuron Flexi	Apply early preplant up to 28 days prior to planting or preemergence to the soil surface as a broadcast or banded application. Do not apply postemergence to sweet corn. Use the lower rate on soils with less than 3% organic matter. Not effective on soils with greater than 10% organic matter.	
s-metolachlor + mesotrione + safener	2.0–2.4 qt Zemax	Zemax provides good to excellent control of foxtails, crabgrass, fall panicum, and most annual broadleaf weeds, but will only suppress wild proso millet and has no effect on quackgrass. The mesotrione in this premix improves velvetleaf control compared to Bicep Lite II Magnum or similar premixes. Zemax can be tank mixed with Princep in atrazine prohibition areas. Yellow nutsedge will be suppressed. Do not apply if wind speed exceeds 10 mph.  <b>Preplant:</b> Apply up to 14 days before planting.  <b>Preemergence:</b> Apply after planting but before sweet corn and grass weeds emerge.	

\*Restricted-use pesticide.

*(continued)*

**Weed control in sweet corn** *(continued)*

Weed	Active ingredient	Rate/a of commercial product	Remarks and suggestions
<b>Annual weeds</b> (soil-applied herbicides) <i>(cont.)</i>	*s-metolachlor + mesotrione + atrazine + safener	2.7–3.25 qt Lumax EZ	Lumax provides good to excellent control of foxtails, crabgrass, fall panicum, and most annual broadleaf weeds, but will only suppress wild proso millet and has no effect on quackgrass. The mesotrione in this premix improves velvetleaf control compared to Bicep Lite II Magnum or similar premixes. Lumax is similar to Zemax except it also contains atrazine, which increases the consistency of control of some broadleaf weeds. Do not apply if wind speed exceeds 10 mph.  <b>Preplant:</b> Apply up to 14 days before planting.  <b>Preemergence:</b> Apply after planting but before sweet corn and grass weeds emerge.
	simazine	4.0 pt Princep 4L (or equivalent)	Princep controls many annual broadleaf weeds, but grasses will only be controlled at higher rates. Quackgrass will not be controlled.  <b>Preplant-incorporated:</b> Apply within 2 weeks before planting and blend into the top 2 inches.  <b>Preemergence:</b> Apply after planting but before sweet corn and weeds emerge. Princep requires more rainfall than atrazine to make it effective. Preplant-incorporated applications will be more effective in dry springs.
<b>Emerged annual broadleaves</b>	*atrazine	1.5–3.0 pt Atrazine 4L (or equivalent) <i>plus</i> 2.0 pt oil concentrate	<b>Early postemergence:</b> Use after earlier annual grass control treatment before redroot pigweed and common lambsquarters are 6 inches tall and before all other broadleaf weeds reach 4 inches but before corn is more than 12 inches tall. Check Wisconsin atrazine rate limits before using this treatment. Triazine-resistant velvetleaf, common lambsquarters, smooth pigweed, and kochia are not controlled.
	bentazon	Basagran	<b>Postemergence:</b> Apply when broadleaf weeds are small and sweet corn has one to five leaves. If velvetleaf is the primary problem, substitute UAN or spray grade ammonium sulfate for the oil concentrate. Consult label for allowable adjuvants and rates. If both velvetleaf and common lambsquarters and/or common ragweed are a problem, include both oil concentrate and nitrogen solution or ammonium sulfate. Use sufficient spray volume to ensure adequate coverage. Rain within 4 hours reduces effectiveness. Also provides good control of yellow nutsedge; treat when 6–8 inches tall.
	clopyralid	0.33–0.66 pt Stinger	<b>Postemergence:</b> Stinger has good activity on weeds in the legume and sunflower families, including Canada thistle, common and giant ragweed, and cocklebur. For Canada thistle, apply when most plants have emerged and are 6–8 inches tall but before the pre-bud stage. For annual weeds, apply before weeds exceed the five-leaf stage. Apply before sweet corn exceeds 18 inches in height as a broadcast or directed spray in 10–20 gal/a. Stinger may be tank mixed with other herbicides labeled for use on sweet corn. Rain within 6 hours reduces effectiveness. Do not harvest ears or forage within 30 days after application, or stover within 60 days.
	fluroxypyr	0.4 pt Starane Ultra	<b>Postemergence:</b> Starane controls cocklebur, ragweeds, velvetleaf, hemp dogbane, and suppresses volunteer potato. It is poor on lambsquarters and pigweed when used alone. Starane can be tank mixed with atrazine to control these and other broadleaf weeds. Apply before annual weeds are 8 inches tall. Apply to sweet corn through the four-leaf collar stage in broadcast or directed spray in 10–20 gal/a. Drop nozzle applications can be made after this stage. Rain within 1 hour reduces effectiveness. Apply at least 31 days before harvesting ears or feeding forage to livestock.

\*Restricted-use pesticide.

*(continued)*

Pea

Pepper

Potato

Pumpkin & squash

Sweet corn

Table beet

Tomato

## Weed control in sweet corn *(continued)*

Weed	Active ingredient	Rate/a of commercial product	Remarks and suggestions	
Pea	Emerged annual broadleaves <i>(cont.)</i>	fluthiacet	0.6–0.9 oz Cadet plus 0.25% non-ionic surfactant or 1.0–2.0 pt/a crop oil concentrate	<b>Postemergence:</b> Cadet is primarily a velvetleaf herbicide with little residual activity. It may be applied from the 2-collar stage to 48 inches tall or prior to tasseling corn, whichever occurs first. Cadet provides excellent control of velvetleaf up to 36 inches tall, but is only labeled to control small lambsquarters, waterhemp, and pigweed at the 0.9 oz/a rate. It may cause temporary spotting of corn leaves. It is an option when targeting velvetleaf alone or to improve the control of other broadleaf herbicides. Cadet has contact activity and requires a minimum of 15 gallons per acre spray volume and 20 psi spray pressure. It can be mixed with other grass or broadleaf herbicides. Do not apply if wind speed exceeds 10 mph. Do not harvest sweet corn until 40 days after application.
		halosulfuron	0.67–1.0 oz Permit or Sandea	Apply over the top or with drop nozzles up to 30 days prior to harvest. If susceptible weeds are present at application the addition of NIS will enhance weed control. Treat nutsedge in the three- to five-leaf stage and broadleaf weeds 1–3 inches in height. Do not use on Jubilee sweet corn. Not all varieties have been tested for sensitivity to halosulfuron.
		mesotrione	3.0 oz Callisto plus 0.25% non-ionic surfactant	<b>Postemergence:</b> Callisto controls many annual broadleaf weeds, but will not control most grasses. Callisto may cause bleaching of sweet corn leaves, but the injury generally does not affect sweet corn growth. Sweet corn varieties vary in tolerance to Callisto. To minimize the risk of injury, non-ionic surfactant is the recommended adjuvant. Crop oil concentrate at 1% may be used, but the risk of injury increases. Do not add ammonium sulfate or a liquid nitrogen fertilizer. Because less-active adjuvants are used in sweet corn versus field corn, broadleaf weeds should be sprayed before 5 inches tall. Tank mixing 0.25 lb/a atrazine with Callisto is synergistic and will compensate for the less-active adjuvants in general and will specifically improve common ragweed control. Callisto plus atrazine must be applied before the sweet corn exceeds 12 inches. Callisto alone must be applied before sweet corn exceeds 30 inches or the V8 stage. Rain within 1 hour may reduce effectiveness. Do not apply Callisto if Counter or Lorsban were applied. Do not apply if wind speed exceeds 10 mph.
Potato	Emerged annual broadleaves	tembotrione + safener	3.0 oz Laudis plus 1% methylated seed oil (preferred) or 1% crop oil concentrate plus 1.5 qt 28% nitrogen solution or 1.5 lb ammonium sulfate	<b>Postemergence:</b> Laudis controls many annual broadleaf weeds including lambsquarters, nightshade, pigweed, ragweeds, and velvetleaf, as well as several annual grasses including large crabgrass, giant and yellow foxtail, and wild proso millet. Broadleaf weeds should be treated before they are 6-inches tall. Grass weed heights are shorter and vary by species. Tank mixing with 0.5 lb/a atrazine is synergistic and will improve control of broadleaf weeds and will control larger grass weeds. Laudis can be applied to sweet corn up to the 7-collar growth stage, except for atrazine tank mixtures which must be applied before corn exceeds 12 inches. Most hybrids have excellent tolerance to Laudis; however, a few hybrids, like Merit, are highly sensitive and will be killed. Rain within 1 hour may reduce effectiveness.
		topramezone	1.0 oz Impact	Apply postemergence to actively growing weeds at least 45 days prior to corn harvest. Both an adjuvant and nitrogen fertilizer are required to achieve optimum weed control—refer to the label for allowable types and rates. Where allowed, the addition of atrazine in a tank mix with Impact will improve weed control.
Pumpkin & squash	Emerged annual grasses	foramsulfuron + safener	1.5 oz Option plus 1.5 pt/a methylated seed oil plus 1.5–2.0 qt/a nitrogen fertilizer or 1.5–3.0 lb/a ammonium sulfate	<b>Postemergence:</b> Option can be applied to sweet corn from the one- to 6-collar stages for annual grass and quackgrass control. Option will not control crabgrass. Option can be tank mixed with atrazine or Permit for improved broadleaf weed control. Do not apply if Counter (in-furrow), Dyfonate, or Thimet was applied due to risk of crop injury. Lorsban or Counter (T-band) may also cause injury. Do not harvest until 45 days after application.

\*Restricted-use pesticide.

*(continued)*

**Weed control in sweet corn** (continued)

Weed	Active ingredient	Rate/a of commercial product	Remarks and suggestions
<b>Emerged annual grasses</b> (cont.)	nicosulfuron + safener	0.9 oz/a Accent Q plus 1.0% oil concentrate or 0.25% surfactant plus 2.0 qt 28% nitrogen fertilizer or 2.0 lb ammonium sulfate	<p><b>Postemergence:</b> Apply broadcast to processing or fresh-market sweet corn up to 12 inches tall or with drop nozzles to sweet corn up to 18 inches tall. Do not treat if sweet corn has 6 or more collars (V6 stage). Accent Q may injure certain sweet corn hybrids. Contact a DuPont representative for hybrid tolerance information. Accent Q will kill highly sensitive hybrids.</p> <p>Apply before foxtails, barnyardgrass, fall panicum, and wild proso millet exceed 4 inches or quackgrass exceeds 10 inches. Accent Q will not control crabgrass. Rain within 4 hours reduces effectiveness. Do not cultivate 10 days before or 7 days after application. Accent Q can be tank mixed with atrazine. Do not apply Accent Q if Counter has been used. Accent Q's interaction with other organophosphate soil insecticides may cause unacceptable injury. Do not apply an organophosphate insecticide within 7 days before or 3 days after applying Accent Q.</p>
	sethoxydim	0.75–2.25 pt Poast Plus plus 1.0 qt/a crop oil concentrate  0.5–1.5 pt Poast plus 1.0 qt/a crop oil concentrate	<p><b>Poast/Poast Plus can only be applied to Poast-protected sweet corn; other hybrids will be severely injured.</b></p> <p><b>Postemergence:</b> Poast Plus will control annual grass weeds and suppress quackgrass. Apply Poast Plus at 0.75 pt/a to control wild proso millet up to 10 inches tall, 1.5 pt/a for crabgrass up to 6 inches tall and foxtails up to 8 inches tall, and 2.25 pt/a for quackgrass when 8 inches tall. The addition of 2.5 lb/a ammonium sulfate or 2–4 qt/a 28% nitrogen solution may improve control of certain grass weeds. Tank mixtures with atrazine, Basagran, or Laddok S-12 are labeled to control emerged broadleaf weeds. Poast has minimal residual activity on grass weeds. Labeled tank mixtures with Outlook or G-Max Lite would provide residual weed control. Poast applications can be made until before pollen shed. Up to 2 applications can be made at an interval of 10 days. Rain within 1 hour may reduce effectiveness. Sweet corn can be harvested 30 days after application.</p>
<b>Emerged annual and perennial broadleaves</b>	2,4-D	<i>broadcast:</i> 0.5–1.0 pt 2,4-D amine or 0.33–0.66 pt 2,4-D low volatile ester <i>drop nozzle:</i> 1.0 pt 2,4-D amine or low volatile ester	<p>Sweet corn may be injured by 2,4-D; use only when essential. Do not cultivate for 8–10 days to allow sweet corn to recover from stalk brittleness. Smartweeds and wild buckwheat are tolerant to 2,4-D, especially the amine form. Do not harvest ears within 45 days after application.</p> <p><b>Broadcast early postemergence:</b> Apply when sweet corn is 4–6 inches tall. Use the lower rate in hot, humid weather.</p> <p><b>Drop nozzle postemergence:</b> Apply when sweet corn is at least 8 inches tall. Direct spray toward base of sweet corn.</p>
<b>Directed applications</b>	*paraquat	1.0–2.0 pt *Gramoxone SL	<p>Apply as directed spray when corn is at least 10 inches tall and before weeds reach 6 inches tall. Corn plants shorter than 10 inches may be injured beyond recovery. Add 1 qt of non-ionic surfactant per 100 gal of final spray mixture.</p> <p>Arrange nozzles to spray no higher than the lower 3 inches of corn stalks to provide maximum weed contact with minimum corn contact. Do not spray over the top of corn. Do not mix this herbicide with liquid fertilizer for simultaneous application. For improved control of broadleaf annual weeds include 1–2 pt/a of the atrazine 4L formulation or an equivalent in the spray mixture. Use Gramoxone only when there is enough height difference between the corn and weeds to thoroughly spray the weed foliage without contacting the upper corn leaves by spray or drift. Such contact may cause crop injury. This treatment provides excellent annual weed control and temporary burn on the topgrowth of perennial weeds. However, an earlier herbicide treatment, rotary hoeing, or row cultivation is usually necessary to establish the proper height differential between corn and weeds.</p>

\*Restricted-use pesticide.

Pea

Pepper

Potato

Pumpkin & squash

Sweet corn

Table beet

Tomato