CORN INSECT CONTROL

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PEST	MATERIAL AND FORMULATION	MOA	AMOUNT PER ACRE OR PER 1000 FT OF ROW	LB. ACTIVE INGREDIENT PER ACRE	REI/PHI (Hours or Days)	REMARKS AND PRECAUTIONS
Preplant treatment for soil insects	*bifenthrin* Brigade, Discipline, Fanfare, other brands 2EC	3A	3–4 fl oz	0.047–0.062	24 H/ 30 D	Use *bifenthrin* for grubs, wireworms, seedcorn maggot, and cut-worms. Broadcast using 20 GPA before planting and immediately incorporate into top 3" of soil. Plant crop as soon as possible after treatment. May be tank mixed with preplant herbicides.
Soil Insects At-planting: wireworm, grubs, S. corn rootworm, seed corn maggot, fire ants (Also see sections for billbugs, cutworms, lesser cornstalk borer, and mid-season rootworms for these pests)	**SEED TREATMENTS**					All of these materials at the listed rates provide helpful control, but may not provide complete protection if population pressure is great. Risk of severe infestation is greater in reduced/no tillage, fallow land, following sod, poor soil conditions for seedling growth, and late-planted corn. **NOTE:** Poncho and Cruiser are commercially applied seed treatments. The low rate may not provide good protection under severe infestations. These products also suppress aphids and chinch bugs on seedlings. Both insecticides available in combination with various fungicides under several brand names. Avicta Complete Corn contains Cruiser 500. Acceleron for corn contains Poncho 250 and Acceleron with VITiVO contains Poncho 500. **NOTE:** At-planting treatment rates are for 1000 ft of row in 30–40" rows. Per acre rates vary with row spacing; See labels for per acre rates for specific row spacing and for row spacings fewer than 30" apart. **NOTE:** Apply Counter 20G as a T-band or in-furrow. Counter will interact with ALS-inhibiting herbicides like Accent, Beacon, and Option to cause severe plant injury. See corn weed section of this handbook and product labels for specific herbicide interactions and precautions. **NOTE:** Phorate / Thimet (phorate) 20G also are labeled but not listed. Apply as a band application only; in-furrow applications may cause plant injury and stand loss. Due to the risk of plant injury, Counter 15G is a better choice. Phorate / Thimet will interact with ALS-inhibiting herbicides as noted for Counter. **NOTE:** Apply Force 3G and *bifenthrin* products as an open-furrow T-band or in-furrow. Force and *bifenthrin* do not interact with ALS herbicides. **NOTE:** Apply Nurizma through spray nozzles or microtubes in open seed furrow. Cover with soil immediately after application. Do not apply over the top to close furrow. See label for mixing directions and rates per acre for various row spacings. Not labeled for fire ant control. **NOTE:** Fortenza for control of wireworms, white grubs and cutworms. Recommended applied with fungicides and Cruiser seed treatments.
	broflanilide Nurizma Group 30	4A	0.05–0.16 fl oz/1000 row-ft	Varies with row spacing	12 H/ — Not listed	
	clothianidin Poncho 250: Acceleron, NipsIt Inside Poncho 500: Acceleron with Poncho Vitivo, NipsIt Inside Poncho 1250: Acceleron with Poncho Vitivo 1250, PPST+Poncho 1250, NipsIt Inside	4A	 0.25 mg (ai)/seed 0.5 mg (ai)/seed 1.25 mg (ai)/seed	 — — —	12 H/ — Not listed	
	cyantraniliprole Fortenza 5FA	4A	0.125–0.25 mg/seed	—	12 H/ — Not listed	
	imidacloprid Gaucho 600, Attendant 600, Axcess, other brands	4A	 0.6 mg (ai)/seed 1.34 mg (ai)/seed		12 H/ —	
	thiamethoxam Cruiser 250 (5FS), PPST 250 Cruiser 500 (5FS) Cruiser 1250 (5FS)	4A	 0.25 mg (ai)/seed 0.5 mg (ai)/seed 1.25 mg (ai)/seed	 — — —	12 H/ 45 D	
	thiamethoxam + chlorantraniliprole PPST 250 Plus Lumivia	4A	0.25 mg (ai)/seed + 0.25 mg (ai)/seed		12 H/ 45 D	
	AT-PLANTING TREATMENT					
	bifenthrin Brigade, Capture, Fanfare, Discipline, other brands 2EC	3A	0.15–0.3 fl oz/1000 ft of row	0.0023–0.0046/ 1000 ft lb (ai)/A varies with row spacing	24 H/ 30 D	
	Capture LFR 1.5		3.4–13.6 fl oz/A OR 0.2–0.78 fl oz/1000 ft of row	0.04–0.16 lb (ai)/A		
	Capture 3RIVE 3D		0.23–0.92 fl oz/1000 ft row	0.05–0.2	12 H/ 30 D	
	Capture 1.15G, similar products		6.4–8 oz /1000 ft	Varies w/row spacing	24 H/ 30 D	
	chlorethoxyfos + bifenthrin Smart Choice 5G Smartbox	11B + 3A	3–3.5 oz/1000 ft of row	Varies	48 H/ —	
	tefluthrin Force 3G Force CS	3A	 4–5 oz/1000 ft of row 0.46–0.57 fl oz/1000 ft row	Varies	12 H/ —	
	terbufos Counter 20G	1B	4.5–6 oz/1000 ft	Varies	48 H/ 30 D	

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Soil Insect Mid-season: Western corn rootworm	**AT-PLANTING TREATMENT**					Western corn rootworm can be a problem in non-rotated corn in northern and central Georgia. Hybrids with Bt-rootworm traits are available and are effective against mid-season rootworms but are NOT effective against other soil insects. Bt-rootworm traits have a 20% refuge requirement. **At-Planting Treatments:** Apply at-planting in a 6–7" band or T-band (if label permits) over the open seed furrow in front of the planter press wheel. Counter and Force can be applied in-furrow. For no-till where no incorporation is obtained with the press wheel, use Counter in-furrow at indicated rates. **NOTE:** Rates are for 30–40" row. See label for rates for specific row spacing. Most products cannot be used at the listed rate in less than 30 inch rows without exceeding the maximum labeled amount/A. See label for narrow rows. **NOTE:** Poncho 1250 is available as a commercially applied seed treatment. Provides suppression only of western corn rootworms. **NOTE:** Counter may interact with ALS herbicides like Accent and Beacon to cause plant injury. See corn weed control section of this handbook and product labels for herbicide interactions and precautions.
	chlorethoxyfos + bifenthrin Smart Choice 5G Smartbox	11B + 3A	3–3.5 oz/1000 ft of row	Varies	48 H/ —	
	clothianidin Poncho 1250	4A	1.25 mg (ai)/seed	—	12 H/ —	
	tefluthrin Force 3G Force CS	3A	4–5 oz/1000 ft of row 0.46–0.57 fl oz/1000 ft row	Varies	12 H/ —	
	terbufos Counter 20G	1B	4.5–6 oz/1000 ft	Varies	48 H/ 30 D	
Soil Insects: Billbug, Sugarcane beetle	**SEED TREATMENTS/AT-PLANTING TREATMENT**					Beetles feed on seedling plants at or below soil line causing dead or dead-hearted plants. Generally problems are worse in reduced tillage, when a winter cover crop is used. Billbugs are often associated with nutgrass infestation and sugarcane beetle is often associated with bahiagrass infestation. **At-Planting treatments:** Apply Counter as a T-band application. Apply Capture LFR in-furrow or in a 5–7" open furrow T band for sugarcane beetle control. Poncho 1250 and Cruiser 1250 are available only as a commercial seed treatment. Poncho 500 may also provide suppression of billbug. Poncho 250 also provides fair–good control of sugarcane beetle. **NOTE:** Counter may interact with ALS herbicides like Accent and Beacon to cause plant injury. See corn weed control section of this handbook and product labels for herbicide interactions and precautions. **Post-emergence control:** Stand loss of 10% justifies control. Direct liquid sprays at base of plant using at least 25 gal/A of spray. Generally rescue treatments for sugarcane beetle are not effective.
	bifenthrin Capture LFR	3A	3.4–6.8 fl oz	0.04–0.08 lb ai	12 H/ —	
	clothianidin Poncho 500 (Poncho Votivo) Poncho 1250 NipsIt Inside	4A	0.50 mg (ai)/seed 1.25 mg (ai)/seed See label	— — —	12 H/ —	
	terbufos Counter 20G	1B	4.5–6 oz/1000 ft	Varies	48 H/ 30 D	
	thiamethoxam Cruiser 1250	4A	1.25 mg (ai)/seed	—	12 H/ 45 D	
	gamma cyhalothrin Declare 1.25 Proaxis 0.5	3A	1.54 fl oz 3.84 fl oz	0.015 0.015	24 H/ 21 D	
	lambda cyhalothrin Warrior II Zeon 2.08 Silencer, Lambda T, others 1CS	3A	1.92 fl oz 3.84 fl oz	0.03 0.03	24 H/ 21 D	

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Soil Insects: Lesser cornstalk borer	**PREPLANT/SEED TREATMENTS/AT-PLANTING**					Lesser cornstalk borer larvae tunnel into the seedling plant below the soil line causing dead or dead-hearted plants Larvae spin silken tubes at plant base. Hot, dry conditions, clean tillage, and late planting favor infestations. Difficult to control after planting; at-planting treatments are most effective. **Post-emergence:** Direct spray at full rate in a band around base of plants and lightly incorporate. Apply before larvae enter plants. A rescue treatment once larvae tunnel into plants is rarely effective. **NOTE:** Hybrids with Bt traits also may provide useful control. **NOTE:** *Chlorantraniliprole* (Vantacor, Prevathon) applied in-furrow at planting as listed for armyworms and cutworms may provide useful control.
	clothianidin Poncho 500 (Poncho Votivo) Poncho 1250 NipsIt Inside	4A	 0.5 mg (ai)/seed 1.25 mg (ai)/seed See label	 — — —	12 H/ —	
	gamma cyhalothrin Declare 1.25 Proaxis 0.5	3A	 1.54 fl oz 3.84 fl oz	 0.015 0.015	24 H/ 21 D	
	lambda cyhalothrin Warrior II Zeon 2.08 Silencer, Lambda, others 1	3A	 1.92 fl oz 3.84 fl oz	 0.03 0.03	24 H/ 21 D	
Chinch bug	**AT-PLANTING**					**At-planting treatments:** Low (250) rates of Poncho and Cruiser seed treatments as applied at planting for soil insect control may suppress chinch bugs for up to 25 days after planting. Poncho 500, 1250, and Cruiser 1250 may control chinch bugs for several weeks after planting. Counter 20G for suppression of light to moderate infestations. **Post-emergence treatments:** Treat if bugs become numerous and wilting leaves are noticed. Usually not important after seedling stage. Chinch bug infestations are difficult to control. Treatment after boot stage is rarely effective.
	clothianidin Poncho 250 Poncho 500 (Poncho Votivo) NipsIt Inside 5	4A	 0.25 mg (ai)/seed 0.5 mg (ai)/seed See label	 — — —	12 H/ —	
	terbufos Counter 20G	1B	 4.5–6 oz/1000 ft	Varies	48 H/ 30 D	
	thiamethoxam Cruiser 250 Cruiser 1250	4A	 0.25 mg (ai)/seed 1.25 mg (ai)/seed	 — —	12 H/ 45 D	
	gamma cyhalothrin Declare 1.25 Proaxis 0.5	3A	 1.54 fl oz 3.84 fl oz	 0.015 0.015	24 H/ 21 D	
	lambda cyhalothrin Warrior II Zeon 2.08 Silencer, Lambda T, others 1CS	3A	 1.92 fl oz 3.84 fl oz	 0.03 0.03	24 H/ 21 D	

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Aphids (foliar treatments)	*bifenthrin* Brigade, Capture, Fanfare, Discipline, other brands 2EC	3A	2.1–6.4 fl oz	0.05–0.10	24 H/ 30 D	Aphids seldom require control on field corn in Georgia. Natural enemies, mainly lady beetles, usually move in and rapidly control aphid infestations. During silking and tasseling, treat if aphids are so abundant they appear likely to interfere with pollination. **NOTE:** Poncho and Cruiser seed treatments as applied at planting for soil insect control will control aphids on seedling corn for up to 30 days after planting.
	dimethoate Dimethoate 2.67EC Dimethoate 4E, 400	1B	0.5 pt 2–3 pt	0.25 0.5–0.75	48 H/ 42 D	
	esfenvalerate Asana XL, Adjourn 0.66EC	3A	5.8–9.6 fl oz	0.03–0.05	12 H/ 21 D	
	flupyradifurone Sivanto Prime	4D	7–10.5 fl oz	0.091–0.137 fl oz	4H/ 21 D	
	sufloxaflor Transform WG	4C	0.75–1.5 oz	0.023–0.047	24H/ 7 D	
Armyworms: True armyworm Fall armyworm	*alpha-cypermethrin* Fastac CS 0.83	3A	1.8–3.8 fl oz	0.012–0.025	12 H/ 30 D	Reduced tillage and grassy weeds favor infestations. Seedling plants, treat if 25% of plants show defoliation including window-panning type defoliation and larvae are present. Treat within 48 hours. Whorl stage plants, treat when 30% of the plants are infested. Use ground equipment and apply at least 20 gal of finished spray/A directed down into the whorls. Nozzles with large droplet size will aid in control. **NOTE:** Bt-corn, especially YieldGard-CB, generally is not effective against true armyworm. See seed dealer for refuge requirements of Bt corn hybrids. **NOTE:** *Chloantraniliprole* (Vantacor, Prevathon) can be applied in-furrow at planting as a directed spray or microtube injection at 1.7–25 fl oz/acre for control of armyworms and cutworms. See label for table of rates per 100 row-ft for various row spacings.
	bifenthrin Brigade, Capture, Fanfare, Discipline, other brands 2EC	3A	2.1–6.4 fl oz	0.033–0.01	24 H/ 30 D	
	beta-cyfluthrin Baythroid XL 1.0EC	3A	2.8 fl oz	0.022	12 H/ 21 D	
	chlorantraniliprole Prevathon 0.43 Vantacor (Fall armyworm only)	28	14–20 fl oz 1.2–2.5 fl oz	0.047–0.09 0.047–0.098	4 H/ 21 D	
	deltamethrin Delta Gold 1.5EC	3A	0.8 fl oz	0.009	12 H/ 21 D	
	esfenvalerate Asana XL, Adjourn 0.6 6EC (True armyworm only)	3A	9.6 fl oz	0.05	12 H/ 21 D	
	gamma cyhalothrin Declare 1.25 Proaxis 0.5	3A	1.54 fl oz 3.84 fl oz	0.015 0.015	24 H/ 21 D	
	indoxacarb Steward	22A	6.0–11.3 fl oz	0.059–0.11	12 H/ 14 D	
	lambda cyhalothrin Warrior II Zeon 2.08 Silencer, Lambda T, others 1CS	3A	1.92 fl oz 3.84 fl oz	0.03 0.03	24 H/ 21 D	
	methomyl Lannate, Annihilate, other brands 2.4LV	1A	0.75–1.5 pt	0.225–0.45	48 H/ 21 D	
	methoxyfenozide Intrepid 2F (True armyworm only)	18	4–16 fl oz	0.06–0.25	24 H/ 21 D	
	methoxyfenozide + spinetoram Intrepid Edge	5 + 18	4–12 fl oz		24 H/ 28 D	

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Armyworms: True armyworm Fall armyworm (continued)	*spinetoram* Radiant 1SC	5	3–6 fl oz	0.0234–0.0469	4 H/ 28 D	
	spinosad Blackhawk (36%)	5	1.67–3.3 oz	0.038–0.075	4 H/ 28 D	
	zeta-cypermethrin Mustang Maxx, Respect	3A	4 fl oz	0.025	12 H/ 30 D	
Corn earworms, Fall armyworms (In ears)	*chlorantraniliprole* Prevathon 0.43 Vantacor	28	14–20 fl oz 1.2–2.5 fl oz	0.047–0.09 0.047–0.098	4 H/ 21 D	Corn earworm and fall armyworm in ears are difficult to control. Usually not economical to keep these insects out of the ears using insecticides. Apply Prevathon when eggs are being laid on silks and before larvae move into the ear. Bt-trait in Genuity Trecepta, Agrisure Viptera, and Optimum Leptra will reduce infestation and ear/kernel damage by corn earworm and fall armyworm. Other single Bt traits are not effective in preventing ear damage.
	methoxyfenozide + spinetoram Intrepid Edge	5 + 18	8–12 fl oz		24 H/ 28 D	
	Bt-trait corn Genuity Trecepta Agrisure Viptera Optimum Leptra	11A	Insecticide produced in plant			
Cutworms	*alpha-cypermethrin* Fastac CS, other brands 0.83	3A	1.8–3.8 fl oz	0.012–0.025	12 H/ 30 D	Several species including black, dingy and variegated cutworms. Reduced tillage conditions, plant residue, winter cover crops, and winter grassy weeds favor infestation. **Pre-plant** broadcast application within 2 weeks of planting may provide helpful control of large cutworms. Use intermediate to highest rate listed. Most products can be tank mixed with a pre-plant herbicide. **At planting** apply insecticide as a band or T-band over the row. Check label for specific banding directions. **NOTE:** Poncho 1250 as applied at planting for soil insect control also will reduce cutworm damage. **NOTE:** Some Bt traits are effective at preventing cutworm damage. **NOTE:** *Chloantraniliprole* (Vantacor, Prevathon) can be applied in-furrow at planting as a directed spray or microtube injection at 1.7–25 fl oz/acre for control of armyworms and cutworms. See label for table of rates per 100 row-ft for various row spacings. **NOTE:** See soil insects for Fortenza and Lumivia seed treatments for seedling control of black cutworm.
	beta-cyfluthrin Baythroid XL 1EC	3A	1.6 fl oz	0.013	12 H/ 21 D	
	bifenthrin Bifenthrin, Capture, Discipline, Fanfare, other brands 2EC	3A	PPI & PRE: 3–4 fl oz/A (0.047–0.062 lb AI) POST: 2.1–6.4 fl oz/A (0.033–0.10)	0.033–0.10	24 H/ 30 D	
	cyfluthrin Tombstone 2	3A	1.6 fl oz	0.025	12 H/ 21 D	
	deltamethrin Delta Gold 1.5EC	3A	0.8 fl oz	0.009	12 H/ 21 D	
	esfenvalerate Asana XL, Adjourn 0.66EC	3A	9.6 fl oz	0.05	12 H/ 21 D	
	gamma cyhalothrin Declare 1.25 Proaxis 0.5	3A	1.54 fl oz 3.84 fl oz	0.015 0.015	24 H/ 21 D	
	lambda cyhalothrin Warrior II Zeon 2.08 Silencer, Lambda T, others 1CS	3A	1.28–1.6 fl oz 1.92–3.2 fl oz	0.02–0.025 0.02–0.025	24 H/ 21 D	
	permethrin others 3.2EC	3A	4–6 fl oz	0.1–0.15	12 H/ 30 D	
	zeta-cypermethrin Mustang Maxx, Respect 0.8EC	3A	2.8–4 fl oz/A or 0.16 fl oz/1000 ft	0.014–0.025	12 H/ 7 D	

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European corn borer, Southwestern corn borer	*bifenthrin* Bifenthrin, Capture, Fanfare, Discipline, other brands 2EC	3A	2.1–6.4 fl oz	0.033–0.10	24 H/ 30 D	**EUROPEAN CORN BORER:** Insecticides must be applied before larvae bore into stalks. Whorl stage (1st generation), treat if numerous egg masses are found in the field (treat just as eggs hatch) or when 50% of the plants have leaf feeding and live, small larvae are found. Tasseling stage (2nd generation), treat when the corn is in the early-tasseling stage and moths are active in the field. **SOUTHWESTERN CORN BORER:** Currently restricted to northwestern Georgia. Infestations usually worse in late-planted fields. Comments on European corn borer also apply to southwestern corn borer. **NOTE:** All Bt-corn products currently on the market are very effective against both borer species. See seed dealer for refuge requirements of Bt corn hybrids. **NOTE:** Blackhawk/Tracer is most effective against small larvae.
	Bt-trait corn	11A	Insecticide produced in plant			
	chlorantraniliprole Prevathon 0.43 Vantacor		14–20 fl oz 1.2–2.5 fl oz	0.047–0.09 0.047–0.098	4 H/ 21 D	
	gamma cyhalothrin Declare 1.25 Proaxis 0.5	3A	1.28–1.54 fl oz 3.20–3.84 fl oz	0.0125–0.015 0.0125–0.015	24 H/ 21 D	
	indoxacarb Steward	22A	6.0–11.3 fl oz	0.059–0.11	12 H/ 14 D	
	lambda cyhalothrin Warrior II Zeon 2.08, Silencer, Lambda T, others 1CS	3A	1.6–1.92 fl oz 3.2–3.84 fl oz	0.025–0.003 0.025–0.003	24 H/ 21 D	
	methoxyfenozide Intrepid 2F	18	4–16 fl oz	0.06–0.25	24 H/ 30 D	
	methoxyfenozide + spinetoram Intrepid Edge	5 + 18	4–12 fl oz		24 H/ 28 D	
	spinosad Blackhawk (36%)	5	1.67–3.3 oz	0.038–0.075	4 H/ 28 D	
Grasshoppers	*alpha-cypermethrin* Fastac CS, other brands 0.83	3A	2.7–3.8 fl oz	0.017–0.025	12 H/ 30 D	Generally, a problem in reduced tillage and along field margin. Products listed are most effective against small to medium sized nymphs. Adults are highly mobile and may re-infest soon after treatment.
	beta-cyfluthrin Baythroid XL 1EC	3A	2.1–2.8 fl oz	0.0165–0.022	12 H/ 21 D	
	bifenthrin Bifenthrin, Capture, Discipline, Fanfare, other brands 2EC	3A	2.1–6.4 fl oz	0.033–0.10	24 H/ 30 D	
	cyfluthrin Tombstone 2	3A	2.1–2.8 fl oz	0.033–0.044	12 H/ 21 D	
	deltamethrin Delta Gold 1.5EC	3A	1.5 fl oz	0.018	12 H/ 21 D	
	dimethoate Dimethoate 400, 4EC	3A	1 pt	0.5	48 H/ 28 D	
	esfenvalerate Asana XL, Adjourn 0.66EC	3A	5.8–9.6 fl oz	0.03–0.05	12 H/ 21 D	

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Grasshoppers (*continued*)	*gamma cyhalothrin* Declare 1.25 Proaxis 0.5	3A	1.02–1.54 fl 3A3AG RG AW G	0.01–0.015 0.01–0.015	24 H/ 21 D	
	lambda cyhalothrin Warrior II Zeon 2.08, Silencer, Lambda T, others 1CS	3A	1.28–1.92 fl oz 2.56–3.84 fl oz	0.02–0.03 0.02–0.03	24 H/ 21 D	
	zeta-cypermethrin Mustang Maxx, Respect 0.8EC	3A	2.72–4 fl oz	0.017–0.025	12 H/ 7 D	
Beetle Adults: Cereal Leaf beetles, Flea beetles, Japanese beetle, Corn rootworm adults	*alpha-cypermethrin* Fastac CS 0.83	3A	2.7–3.8 fl oz	0.017–0.025	12 H/ 30 D	LEAF FEEDING by CEREAL LEAF BEETLES, FLEA BEETLES, JAPANESE BEETLES: Leaf feeding on whorl stage plants usually in late spring. Cereal leaf beetles move out of maturing small grain fields and infest nearby corn fields. Usually only border rows are damaged and may need control. Treat if beetles become numerous and their feeding damage exceeds 25% leaf area loss. SILK FEEDING by JAPANESE BEETLE, CORN ROOTWORM ADULTS: Feeding on silks by beetles during pollination. Treat if 2 or more Japanese beetles or 5 or more rootworm beetles are present AND most silks are being clipped to within an inch of the ear tip. **NOTE:** During pollination, Sevin (*carbaryl*) has a bee caution. Notification of beekeepers in the area may be needed. Seelabel for details.
	beta-cyfluthrin Baythroid XL 1EC	3A	2.1–2.8 fl oz	0.0165–0.022	12 H/ 21 D	
	bifenthrin Bifenthrin, Capture, Fanfare, Discipline, other brands 2EC	3A	2.1–6.4 fl oz	0.033–0.10	24 H/ 30 D	
	carbaryl Sevin, other brands 4.0	1A	1–2 qt	1–2	24 H/ 48 D	
	cyfluthrin Tombstone 2	3A	1.6–2.8 fl oz	0.025–0.044	12 H/ 21 D	
	gamma cyhalothrin Declare 1.25 Proaxis 0.5	3A	1.02–1.54 fl oz 2.56–3.84 fl oz	0.01–0.015 0.01–0.015	24 H/ 21 D	
	lambda cyhalothrin Warrior II Zeon 2.08 Silencer, Lambda T, others 1CS	3A	1.28–1.92 fl oz 2.56–3.84 fl oz	0.02–0.03 0.02–0.03	24 H/ 21 D	
	permethrin others 3.2EC	3A	4–6 fl oz	0.1–0.15	12 H/ 21 D	
	zeta-cypermethrin Mustang Maxx, Respect 0.8EC	3A	2.72–4 fl oz	0.017–0.025	12 H/ 7 D	
Spider Mites	*bifenthrin* Bifenthrin, Capture, Fanfare, Discipline, other brands 2EC	3A	5.12–6.4 fl oz	0.08–0.10	24 H/ 30 D	MITES: Treat if infestations become widespread, leaf discoloration is evident, and 1–2 lower leaves are dying. *Bifenthrin* products: Use 6.4 fl oz rate alone OR use 5.1 fl oz rate tank mixed with *dimethoate* at 0.5 lb (AI)/A.
	dimethoate Dimethoate 2.67EC Dimethoate 4E, 400	1B	Tank mix *dimethoate* at 0.5 lb (AI)/A with *bifentrhin*		48 H/ 42 D	
	etoxazole Zeal 72WSP Stifle WP	10B	1–3 oz 1–3 oz	0.045–0.135	12 H/ 21 D	

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Spider Mites (*continued*)	*hexythiazox* Onager 1	10A	10–24 fl oz	0.078–0.1875	12 H/ 30 D	Apply at first sign of mites before population begins to build.
	propargite Comite II 6	12C	1.5–2.25 pt	1.125–1.6875	13 H/ 30 D	Only apply to dry foliage. Do not tank mix; do not use an oil-based surfactant. See label for additional restrictions.
	spiromesifen Oberon 2SC Oberon 4SC,	23	5.7–8.5 fl oz 2.85–8 fl oz	0.087–0.13 0.087–0.25	13 H/ 30 D	Use 8.5 fl oz rate for large infestations. A NIS adjuvant is beneficial.
Stink bugs	**BROWN STINK BUGS**					SEEDLING STAGE: Treat if 10% of seedling plants have damage and stink bugs are present. Poncho 250, 500, and 1250 will suppress stink bug damage to seedlings for a few weeks after planting. EAR STAGE: Corn is most sensitive to stink bug injury during ear formation before silking. Treat if 1 bug per 8 plants in the ear zone are infested with stink bugs. KERNEL FILL: During early kernel filling bugs feed through the husk damaging individual kernels. Treat if 1 bug per 4 plants are infested. **NOTE:** Use pyrethroids (Baythroid, Capture, Delta Gold, Fastac CS, Mustang, Karate, Warrior, Declare, Proaxis, Tombstone) if southern green stink bug is present. These products may be less effective against brown stink bug. **NOTE:** Bidrin as used on cotton is not registered for use on corn.
	bifenthrin Bifenthrin, Capture, Discipline, Fanfare, others 2EC	3A	6.4 fl oz	0.10	12 H/ 30 D	
	bifentrhin + zeta cypermethrin Hero Speed	3A	10.3 fl oz 4.7 fl oz	*bifenthrin* 0.10 *bifenthrin* 0.10	12 H/ 30 D	
	GREEN/SOUTHERN GREEN STINK BUGS					
	alpha-cypermethrin Fastac CS, other brands 0.83	3A	3.2–3.8 fl oz	0.020–0.025	12 H/ 30 D	
	beta-cyfluthrin Baythroid XL 1EC	3A	2–2 8 fl oz	0.015–0.022	12 H/ 21 D	
	bifenthrin Bifenthrin, Capture, Discipline, Fanfare, other brands 2EC	3A	3.2–6.4 fl oz	0.05–0.10	24 H/ 30 D	
	cyfluthrin Tombstone 2	3A	2.1–2.8 fl oz	0.033–0.044	12 H/ 21 D	
	gamma cyhalothrin Declare 1.25 Proaxis 0.5	3A	1.28–1.54 fl oz 3.20–3.84 fl oz	0.0125–0.015 0.0125–0.015	24 H/ 21 D	
	lambda cyhalothrin Warrior II Zeon 2.08, Silencer, Lambda T, others 1CS	3A	1.6–1.92 fl oz 3.2–3.84 fl oz	0.025–0.03 0.025–0.03	24 H/ 21 D	
	zeta-cypermethrin Mustang MAX, Respect 0.8EC	3A	3.2–4 fl oz	0.02–0.025	12 H/ 7 D	

PEST	MATERIAL AND FORMULATION	MOA	AMOUNT PER ACRE OR PER 1000 FT OF ROW	LB. ACTIVE INGREDIENT PER ACRE	REI/PHI (Hours or Days)	REMARKS AND PRECAUTIONS
Thrips	SEEDLING CONTROL					Treat if field is heavily infested and new leaves show excessive damage. Rarely causes yield loss on field corn. Seed treatments provide suppression; low (250) rate usually not effective. **NOTE:** Blackhawk/Tracer 4SC as applied for fall armyworm may provide helpful control.
	clothianidin Poncho 500 Poncho 1250 NipsIt Inside 5	4C	 0.50 mg (ai)/seed 1.25 mg (ai)/seed See label	 — — —	12 H/ —	
	thiamethoxam Cruiser Extreme 1250	4C	 1.25 mg (ai)/seed	 —	12 H/ 45 D	

PREMIXED OR CO-PACKED INSECTICIDES

Products listed are available as premixes or co-packages of two insecticide active ingredients. User should check mixture labels for active ingredient, specific use rates, target pests, and precautions.

BRAND NAME (ACTIVE INGREDIENTS)	RANGE OF FORMULATION RATES
Besiege (*lambda-cyhalothrin*, *clorantraniliprole*)	5–10 fl oz/A
Consero (*spinosad*, *gamma-cyhalothrin*)	2–3 fl oz/A
Elevest (*chlorantraniliprole, bifenthrin*)	4.8–9.6 fl oz/A
Hero (*zeta-cypermithrin*, *bifenthrin*) Steed (*zeta-cypermithrin*, *bifenthrin*)	2.6–10.3 fl oz/A 2.5–4.7 fl oz/A
Intrpid Edge (*methoxyfenozide*, *spinetoram*)	4–12 fl oz/A

Bt-TRAITS FOR CORN: Most corn hybrids now contain one or more Bt traits. Some traits target caterpillar pests including corn borers, cutworms, fall armyworm, and corn earworm in the whorl, and corn earworm and fall armyworm in the ears. Hybrids with two or three stacked traits for caterpillar control are available. Hybrids also may contain one or more Bt traits for control of western corn rootworms that attack roots during mid-season. Bt-rootworm traits are effective against mid-season rootworms but are NOT effective on seedlings against southern corn rootworm or other soil insects such as wireworms and white grubs. Depending on specific traits, refuge requirements for hybrids with Bt traits are either 20% or 50% of the corn acreage on a farm. Check with seed supplier for a complete list of resistant management restrictions. A table listing various combinations of Bt traits and relative efficacy against pests in Georgia is in the Insect Control section of the current Georgia Corn Production Handbook and on the Georgia Grain web page.

INSECTICIDE USE RESTRICTIONS FOR FIELD CORN

David Buntin, Research/Extension Entomologist

INSECTICIDE	BRAND NAME	DAYS TO GRAIN HARVEST	DAYS TO GRAZING OR SILAGE HARVEST	RESTRICTED ENTRY INTERVAL (REI, hours)	MAXIMUM AMOUNT ALLOWED PER ACRE PER CROP	REMARKS
alpha-cypermethrin	Fastac CS	30	60	12	11.4 fl oz	
bifenthrin	Brigade, Capture, Bifenthrin, Discipline, Fanfare 2E	30	30	24	19.2 fl oz	Use of *bifenthrin* is prohibited in all coastal counties.
beta cyfluthrin	Baythroid XL 1EC	21	0	12	11.2 fl oz (4 applications)	Only 1 application from early dent to 21 days before harvest.
broflanilide	Nurizma	30	Not listed	12	0.0445 lb ai/acre	In-furrow application only. See label for rate per acre for various row spacings.Immediate plant back for all crops except leafy vegetables.
carbaryl	Sevin, Carbaryl 4	48	14	2 4	8 qt	Bee caution. Beekeeper notification may be needed. See label for details.
chlorantraniliprole	Coragen 1.67SC Prevathon 0.43	14	14 1 (grazing)	4	15.4 fl oz	Do not apply fewer than 7 days apart.
chlorethoxyfos + bifenthrin	Smart Choice 5G	at-planting only	—	48	1 application/year	In-furrow only. Do not apply as a surface band application. Registration in Georgia expected by 2013.
clothianidin	Poncho 600 sold as Poncho 250 and Poncho 1250	Not Listed	Not Listed	0	seed treatment	Commercially applied. See label for plant back restrictions.
cyantraniliprole	Fortenza	28	Not Listed	12	0.4 lb ai/acre	See label for plant back restrictions.
cyfluthrin	Tombstone 1	21	0	12	11.2 fl oz	Only 1 application from early dent to 21 days before harvest.
deltamethrin	Delta Gold 1.5EC	21	12 21 (fodder)	12	8.1 fl oz (5 applications)	Do not apply fewer than 21 days apart.
dimethoate	Dimethoate	42	14	48	3 applications	Do not apply during pollen shed.
esfenvalerate	Asana XL, Adjourn	21	Not Listed	12	48 fl oz	Do not apply more than 0.25 lb (ai) per acre per season.
flupyradifurone	Sivanto Prime, Sivanto HL	21	7	4	14 fl oz	
gamma cyhalothrin	Declare 1.25, Proaxis 0.5	21	21	24	0.48 pt 0.96 pt	See label for additional restrictions.
hexythiazox	Onager	30	20	12	1 application	15–20 GPA by ground or 5 GPA by air; see label.
indoxacarb	Steward	22A	14 1	12	22.6 fl oz	2 applications per crop
lambda cyhalothrin	Warrior II Zeon 2.08, Silencer, other brands 1	21	21	24	0.96 pt 0.48 pt	See label for restrictions.
methozyfenozide	Intrepid 2F	21	21	4	64 fl oz	
spiromesifen	Oberon 4SC	30	5	12	See label	
permethrin (foliar)	Permethrin	30	0	12	24 fl oz	
methomyl	Lannate 2.4LV, 90SP	21	3	48	2.25 lb ai	

INSECTICIDE	BRAND NAME	DAYS TO GRAIN HARVEST	DAYS TO GRAZING OR SILAGE HARVEST	RESTRICTED ENTRY INTERVAL (REI, hours)	MAXIMUM AMOUNT ALLOWED PER ACRE PER CROP	REMARKS
phorate	Phorate, Thimet 20G	30[1]	30	48	1 application; 6.5 lb/A	Do not apply in-furrow or after cultivation.
propargite	Comite II	30	30	7 days	1 application	Only apply to dry foliage, DO NOT tank mix, do not use an oil-based surfactant. Use minimum of 20 GPA by ground and 5 GPA for aerial applications.
spinosad	Tracer 4SC Blackhawk 36%	28	7	4	6 fl oz 8.3 oz	Most effective against small larvae.
spiromesifen	Oberon 2SC	30	5	12	17 fl oz and 2 applications	Use at least 10 GPA by ground and 5 GPA by air.
terbufos	Counter 20G	30[1]	30[1]	48	6.5 lb	Make only 1 application.
tefluthrin	Force 3G	Not Listed	Not Listed	0	1 application	Granules must be incorporated into soil.
thiamethoxam	Cruiser 5FS	Not Listed	—	12	Seed treatment	Commercially applied; see label for plant back restrictions. Some formulations may contain fungicides.
zeta-cypermethrin	Mustang Maxx, Respect	7	7	12	16 fl oz	

1. Not listed for at-planting application.

CORN NEMATODE CONTROL

Bob Kemerait, Extension Plant Pathologist

CHEMICAL	RATE/A	REMARKS AND PRECAUTIONS
AVICTA Duo Corn (seed treatment)		AVICTA Duo Corn is a combination of abamectin and thiamethoxam.
BIOST Nematicide 100	6–8 fl oz/100 cwt	BIOST Nematicide 100 is a seed treatment. BIOST Nematicide 100 is derived from the bacterium, *Burkholderia rinojensis*. The active ingredient is 'Heat Killed' *Burkholderia rinojensis*.
Counter 15G	7 lb	*Apply in furrow as row treatment. DO NOT exceed 8.7 lb/A regardless of row spacing. ALS-inhibiting herbicides should not be used if Counter 15G has been applied to the corn at planting. **REI is 48 hours. REI increases to 72 hours in areas where average rainfall is less than 2" a year. Do not graze or cut for forage within 30 days of treatment.**
Counter 20G	5.25 lb	Apply in-furrow as row treatment. DO NOT exceed 6.5 lb/A regardless of row spacing. ALS-inhibiting herbicides should not be used if Counter 20G has been applied to the corn at planting. **REI is 48 hours. REI increases to 72 hours in areas where average rainfall is less than 2" a year. Do not graze or cut for forage within 30 days of treatment.**
PONCHO VOTiVO (seed treatment)		PONCHO VOTiVO is a systemic insecticide and biological seed treatment for use on corn to control insect pests and plant pathogenic nematodes listed on the label to include lance, root-knot, stubby-root, stunt, and sting nematodes.
fluopyram Velum	3.0–5.0 fl oz/A	See remarks below.
fluopyram + prothioconazole Propulse	8 fl oz	In-furrow spray for Velum or Propulse during planting directed on or below the seed. Tank mixes with Propluse and some fertilizers and micronutrients have been problematic and should generally be avoided. **REI: 12 hours PHI: 14 days**
AVERLAND FC"	4.0–6.0 fl oz/A	Apply in-furrow in a minimum of 5 gal/A. Averland FC can be mixed with liquid starter or pop-up fertilizer for use at-plant as an in-furrow spray or dribble.
Telone II	3 gal	Apply Telone II at least 7 days prior to planting by injecting 12" below the soil surface. **REI is 5 days post application.**

*NOTE: Granules should be incorporated for best results.

FIELD CORN DISEASE CONTROL

Bob Kemerait, Extension Plant Pathologist

PEST	FUNGICIDE	MOA	AMOUNT PER ACRE	REI/PHI (Hours or Days)	REMARKS AND PRECAUTIONS
Southern Corn Leaf Blight, Northern Corn Leaf Blight, Common Rust and Southern Rust	NOTE: Growers do not need to apply fungicides to control common rust as this disease causes little damage. However, southern rust, especially in severe years, can cause heavy yield losses. Southern corn Rust was severe in 2020. For best results, fungicide applications should be initiated before disease enters the field or as soon as southern rust is detected after careful scouting. Use of fungicides to manage southern corn leaf blight is rarely needed in recent years. However, 2008 and 2009 were severe years for northern corn leaf blight. With the emergence of northern corn leaf blight as an important disease of corn in Georgia beginning in 2008, growers should recognize that fungicides can be an effective tool to minimize losses associated with this disease. 2018 was a severe year for southern corn leaf blight. For best results, fungicide applications for management of northern corn leaf blight and southern corn leaf blight may need to be made as early as the V8–V10 growth stages. When varieties which are very susceptible to these diseases are planted, fungicides may not always adequately protect the corn crop.				
	azoxystrobin AzoxyStar	11	6–15.5 fl oz	—/ 7D	Do not apply AzoxyStar within 7 days of harvest. **Maximum rate is 123 fl oz/A/season.**
	azoxystrobin Quadris	11	9.2–15.4 fl oz	4 H/ —	Do not apply Quadris within 7 days of harvest. **Maximum rate is 123 fl oz/A/season.**
	azoxystrobin + *fluindapyr* + *flutriafol* Adastrio		7.0–9.0 fl oz/A		Restricted Entry Interval (REI): 12 hours. PHI is 7 days for silage and 30 days for grain/field corn. **Maximum rate: 18 fl oz/A per season.**
	azoxystrobin + *propiconazole* Quilt	11 + 3	7–14 fl oz/A	12 H/ —	Do not apply Quilt within 30 days of harvest. **Maximum rate is 56 fl oz/A/season.**
	azoxystrobin + *propiconazole* Quilt Xcel		10.5–14 fl oz		Do not apply Quilt Xcel within 30 days of harvest. **Maximum rate is 56 fl oz/A/season.**
	azoxystrobin + *propiconazole* Cover XL		10.5–14 fl oz		Do not apply Cover XL within 30 days of harvest.
	benzovindiflupyr (solatenol) + *azoxystrobin* + *propiconazole* Trivapro	7 + 3 + 11	13.7 fl oz	12 H/ 7 D	Trivapro: Maximum total—47 fl oz/year. DO NOT ADD an adjuvant or crop oil after the V8 stage and prior to the VT stage.
	flutriafol Xyway LFR	3	7.6–15.2 fl oz		At-plant application, no more than 0.228 lb ai/year, no more than one application per year. Diseases: labeled for SCLB, NCLB, Grey Leaf Spot, common rust, smut.
	flutriafol TopGuard	3	5–7 fl oz	12 H/ 7 D	Restricted Entry Interval (REI):The REI for detasselling field corn and popcorn grown for seed is 5 days. The REI for all other activities is 12 hours. Pre-harvest Interval: Do not apply within 7 days of harvest.
	flutriafol + *azoxystrobin* TopGuard EQ	3 + 11	5–7 fl oz	12 H/ 7 D	Restricted Entry Interval (REI): The REI for detasselling field corn and popcorn grown for seed is 5 days. The REI for all other activities is 12 hours, Pre-harvest Interval: Do not apply within 7 days of harvest.
	fluoxastrobin Evito 480 SC	11	2–5.7 fl oz	12 H/ —	Apply a maximum of 2 applications of Evito 480SC. Do not apply Evito after the R4 (early dough) stage or within 30 days of harvest. **Maximum rate is 22.8 fl oz/A/season.**
	fluoxastrobin + *tebuconazole* Evito T	11 + 3	4–9 fl oz	12 H/ 7 D	Do not apply Evito after the R4 (early dough) stage or within 36 days of harvest. **Maximum rate is 18 fl oz/A/season.**
	fluoxostrobin + *tetraconazole* Zolera FX	3 + 11	4.4–6.8 fl oz	12 H/ 30 D	Maximum of one application allowed per season. Do not apply with an adjuvant between the V8 and VT growth stages. Do not apply after R3 (brown silk) growth stage.
	flutriafol + *fluoxastrobin* Fortix	3 + 11	4–6 fl oz	12 H/ —	Apply a maximum of two applications per season no later than growth stage R4 (early dough stage). Do not apply Fortix within 80 days of harvest or through chemigation. **Maximum rate is 12 fl oz/A/season.**
	flutriafol + *fluoxastrobin* Preemptor	3 + 11	4–6 fl oz	12 H/ —	Do not use an adjuvant after the V8 stage and prior to the VT stage of corn. An adjuvant may be used at any other growth stage. Restricted Entry Interval (REI) for detasselling is 5 days. The REI for all other activities is 12 hours. Pre-Harvest Interval: Do notapply Preemptor SC Fungicide within 30 days of harvest (grain, seed, forage, or stover)
	picoxystrobin Aproach	11	3–4 fl oz + 6–12 fl oz	12 H/ —	There should be no more than 2 sequential applications of Aproach before shifting to a fungicide of a different mode of action. The 3–4 fl oz/A rate is for early season disease suppression (V3–V7) while the 6–12 fl oz/A rate is typically applied between the VT and R3 growth stages. Do not apply Aproach within 7 days of grain harvest or 0 days before harvest for foliage. **Maximum rate is 36 fl oz/A/season.**

PEST	FUNGICIDE	MOA	AMOUNT PER ACRE	REI/PHI (Hours or Days)	REMARKS AND PRECAUTIONS
Southern Corn Leaf Blight, Northern Corn Leaf Blight, Common Rust and Southern Rust (*continued*)	*picoxystrobin + cyproconazole* Aproach Prima	11 + 3	3.4 fl oz + 3.4–6.8 fl oz	12 H/ —	There should be no more than two sequential applications of Aproach Prima before shifting to a fungicide of a different mode of action. The 3.4 fl oz/A rate is for early season disease suppression (V3–V7) while the 3.4–6.8 fl oz/A rate is typically applied between the VT and R3 growth stages. Do not apply Aproach Prima within 30 days of grain harvest or 21 days before harvest for foliage. **Maximum rate is 6.8 fl oz/A/season.**
	propiconazole Tilt	3	2–4 fl oz	12 H/ —	Do not apply Tilt within 30 days of harvest. **Maximum rate is 16 fl oz/A/season.** For management of northern corn leaf blight and southern corn leaf blight, it is recommended to not apply *propiconazole* alone.
	prothioconazole + trifloxystrobin + fluopyram Delaro Complete	3 + 11 + 7	8.0–12.0 fl oz	12 H/ 14 D	Do not apply more than 24 fl oz/A/year of Delaro Complete.
	pyraclostrobin Headline	11	9–12 fl oz	12 H/ —	Do not apply Headline within 7 days of harvest. Maximum rate is 72 fl oz/A/season.
	pyraclostrobin + fluxapyroxad Priaxor	7 + 11	4–8 fl oz	12 H/ 21 D	Priaxor is a combination of *fluxapyroxad* and *pryraclostrobin*. Do not apply within 21 days of harvest to field corn and make no more than 2 applications per season. **Maximum rate is 16 fl oz/A/season.**
	pyraclostrobin + mefentrifluconazole Veltyma	11 + 3	7–10 fl oz	12H/ 21D	Do not apply more than 20 fl oz/A of Veltyma per year.
	pyraclostrobin + mefentrifluconazole + fluxapyroxad Revytek	11 + 3 + 7	8–15 fl oz		Do not make more than 2 applications per year and do not apply more than 30 fl oz/year.
	pyraclostrobin + metconazole Headline AMP	11 + 3	10 fl oz	12 H/ —	Maximum rate is 57.6 fl oz/A/season. Do not apply Headline AMP within 20 days of harvest for grain or within 7 days of harvest for forage/silage.
	tebuconazole 3.6F	3	4–6 fl oz	12 H/ Grain 36 D Forage/silage 21 D	Do not apply *tebuconazole* within 21 days of harvest for forage or within 36 days of harvest for grain. For management of northern corn leaf blight and southern corn leaf blight, it is recommended to not apply *tebuconazole* alone.
	tebuconazole + azoxystrobin Custodia	3 + 11	9–12.9 fl oz	12 H/ 21 D	Apply in a protective spray schedule or when weather conditions favor disease. Apply on a 7–14 day schedule. Do not use an adjuvant or crop oil after V* stage and prior to VT. **Maximum rate is 51.7 fl oz/A/season.**
	tetraconazole Domark 230 ME	3	4–6 fl oz	12 H/ 21 D	Do not apply more than 6 fl oz/A in order to reduce the potential for resistance. Do not make more than one application of Domark per year. Do not apply Domark after corn growthstage 3 (milk). Do not use adjuvants in sprays made between V8 and VT growthstage.
	tetraconazole + azoxystrobin Affiance Brixen	3 + 11	10–17 fl oz 13–19 fl oz	12 H/ 7 D Silage 21 D	**Maximum rate is 17.06 fl oz/A/year.** Limit of 2 applications per year. Early applications: V4–V8. Regular applications: V8–R3 (do not apply with adjuvants between V8 and VT). Do not apply after R3 (brown silk). Can be applied in chemigation (0.1–0.25"). Do not harvest for silage within 21 days of application. Do not apply after R3 (milk stage).
	trifloxystrobin + propiconazole Stratego	11 + 3	10–12 fl oz	12 H/ —	Do not apply Stratego within 30 days of harvest. **Maximum rate is 24 fl oz/A/season.**
	trifloxystrobin + prothioconazole Stratego YLD	11 + 3	4–5 fl oz	12 H/ —	Stratego YLD should not be applied to field corn within 14 days of harvest. Maximum rate is 10 fl oz/A/season.

FIELD CORN WEED CONTROL

Eric P. Prostko, Extension Agronomist—Weed Science

HERBICIDE	MOA	BROADCAST RATE/ACRE: AMOUNT OF FORMULATION	BROADCAST RATE/ACRE: LBS AI/A	REI/PHI (Hours or Days)	REMARKS AND PRECAUTIONS
PREEMERGENCE					
acetochlor Warrant 3ME	15	48 oz	1.125	12 H/ Grazing or Forage 40 D	**Can be applied PRE or POST (up to 30" tall corn)**. Provides residual control for more annual grasses, except Texas panicum, and certain broad weeds. Under cool, wet weather conditions, stunting or crop injury expressed as malformed, knotted, twisted top growth may occur. Do not apply Warrant if these conditions are forecast within 10 days of application. Warrant may be tank-mixed with *atrazine* or *glyphosate* or Liberty. For the following soil types, do not apply Warrant within 50 feet of any well where the depth to groundwater is 30 feet or less: sands < 3% OM; These restrictions do not apply for areas more than 50 feet from a well or if groundwater is more than 30 feet below land surface. Warrant has no POST activity. **Before using Warrant PRE, check with seedsman about potential hybrid sensitivity.**
metolachlor Stalwart C Parallel Me-Too-Lachlor-II	15	16–21 oz	1–1.33	24 H/ Grazing or Forage 30 D	**Can be applied PPI, PRE, or POST (up to 40" tall)**. With PPI/PRE applications, a formulation that contains a crop safener is preferred. Controls (residual) most annual grasses (except Texas panicum) and certain broadleaf weeds. Fair to good control of yellow nutsedge. Under cool, wet weather conditions, stunting or crop injury expressed as malformed, knotted, twisted top growth may occur. Corn normally outgrows early season injury. *Metolachlor* may be tank-mixed with *atrazine*, *glyphosate*, or Liberty. Available in several premixes with *atrazine* (Bicep II Magnum, Cinch ATZ, Lexar, Lumax, Parallel Plus, Stalwart Xtra). In UGA field trials, the generic formulations of *metolachlor* (Parallel, Stalwart, Me-Too-Lachlor) have not provided the same length of residual control of certain weeds as similar rates of Dual Magnum formulations. When applied POST, a maximum rate of 2 pt/A can be used. The total amount of *metolachlor* that can be applied in a single season cannot exceed 3.33 pt/A on coarse soil types. **Before using Dual PPI or PRE, check with seedsman about potential hybrid sensitivity.**
S-metolachlor Dual Magnum 7.62E Dual II Magnum 7.64E Cinch 7.64E	15	16–21 oz	0.96–1.27	24 H/ Grazing or Forage 30 D	
atrazine 4L 80W 90DG	5	32–80 oz 20–50 oz 18–44 oz	1–2.5	12 H/ Grazing 21 D Forage 60 D	**Can be applied PPI, PRE, or POST (12" tall).** Good to excellent control of most annual broadleaf weeds. Does not usually provide adequate control of Texas panicum or fall panicum. *Atrazine* will often fail to provide extended control of crabgrass and late season control of sicklepod and morningglories. *Atrazine* may be tank-mixed with Liberty, *glyphosate*, *metolachlor*, *acetochlor*, or *pyroxasulfone*. Do not use more than 2.5 lbs ai/A/year of *atrazine*. When using *atrazine* formulations other than 4L, use equivalent rates: 1 qt 4L equals 1.25 lb 80W or 1.1 lb 90 DF.
pyroxasulfone Zidua 4.17SC	15	2.5 oz/A	0.079	12 H/ —	Can be applied PRE, or early postemergence (V8 stage). Provides residual control of certain annual grasses and broadleaf weeds including Palmer amaranth. Can be tank-mixed with *atrazine*, *glyphosate*, and Liberty. **Before using Zidua PRE, check with seedsman about potential corn hybrid sensitivity. In UGA research, PRE applications of Zidua (*pyroxasulfone*) were more injurious than Dual or Warrant, thus POST applications would be preferred over PRE applications. Crop rotation restrictions for Zidua are as follows: canola = 12 months; corn = 0 months; cotton = 1–2 months; grain sorghum = 6 months; peanut = 1-2 months; soybean= 0 months; tobacco = 9 months; wheat = 1 month; small grains other than wheat = 11 months.**
pyroxasulfone + *fluthiacet* Anthem Maxx 4.3SC	15 + 14	2.5–3.0 oz	0.082–0.098 + 0.002–0.003	12 H/ Grain 70 D Stover 70D Forage 30 D	**Can be applied PRE and/or early postemergence (V8)**. Provides residual control of certain annual grasses and broadleaf weeds. Can be tank-mixed with *atrazine*, *glyphosate*, or Liberty. **On coarse textured soils, use the 2.5 oz/A rate.** No more than 4.5 oz/A/year total can be applied on coarse soils. POST applications will cause leaf burn/speckling. Rotation restrictions for 3.25 oz/A or less: corn and soybean—0 months; grain sorghum—6 months; cotton—2 months; peanut—4 months; wheat—1 month. **Before using Anthem Maxx, check with seedsman about potential hybrid sensitivity. Rain-free period is 1 hour. In UGA research, PRE applications of *pyroxasulfone* were more injurious than Dual or Warrant, thus POST applications would be preferred over PRE applications.**

HERBICIDE	MOA	BROADCAST RATE/ACRE: AMOUNT OF FORMULATION	BROADCAST RATE/ACRE: LBS AI/A	REI/PHI (Hours or Days)	REMARKS AND PRECAUTIONS
PREEMERGENCE (*continued*)					
dimethenamid-P Outlook 6EC	15	12.8 oz	0.60	12 H/ 40 D	Can be applied PPI, PRE, POST (12" tall corn) or lay-by (12–36" tall corn). Will provide residual control of certain annual grasses and pigweed. Two applications per season are permitted (14 days apart) with no more than 24 oz/A/season (total). Provides control very similar to other Group 15 herbicides such as *s-metolachlor*, *acetochlor*, and *pyroxasulfone*.
S-metolachlor + tolpyralate Empyros 3.82EC	15 + 27	45 oz	1.31 + 0.035	12 H/ 45 D	Can be applied PRE or POST (V6 or 20"). Empyros will cause temporary crop injury in the form of stunting and bleaching. When applied POST use COC (1% v/v) or NIS (0.25% v/v). Can be tank-mixed with *atrazine, glyphosate* or *glufosinate*. Do not use adjuvants when using loaded *glyphosate* formulations or *glufosinate*. Use nozzle/pressure system that produces medium to coarse droplets (226–400 microns). Do not apply POST if Counter was applied INFR. Rotational crop restrictions: all corn = anytime; barley/oats/rye/wheat = 4.5 month; grain sorghum/cotton/peanut/soybeans, potatoes = 9 months; all other crops = 18 months. Rain-free period = 1 hour.
CHEMIGATION					
metolachlor Stalwart C Parallel Me-Too-Lachlor-II	15	Refer to PRE section for rates		24 H/ —	May be applied by injection through center pivot irrigation systems. Use at normal rates recommended for conventional methods of application. Apply after planting but before crop emergence. Requires proper system calibration and safety devices (check valves, cutoff switches, etc.) to provide effective weed control and prevent environmental contamination. In some UGA field trials, the generic formulations of *metolachlor* (Parallel, Stalwart, Me-Too-Lachlor) have not provided the same length of residual control of certain weeds as similar rates of Dual Magnum formulations.
S-metolachlor Dual Magnum Dual II Magnum Cinch	15	Refer to PRE section for rates		24 H/ —	
dimethenamid-P Outlook 6EC	15	12.8 oz	0.60	12H	
POSTEMERGENCE: OVER-THE-TOP					
atrazine 4L 80W 90DG	5	32–64 oz 20–40 oz 18–36 oz	1–2	12 H/ Grazing 21 D Forage 60 D	Refer to herbicide table and label for specific information. Use low rate for broadleaf weeds. Use high rate for mixed infestations of grasses and broadleaf weeds. Application with crop oil or crop oil concentrate (1% v/v) will improve control. Can be applied up to 12" tall corn. Poor control may result on sicklepod more than 2" tall and on grasses beyond the 2-leaf stage. Do not apply with fluid fertilizer. If no *atrazine* was applied pre-emergence, apply no more than 2 lb/ai/A. If a pre-emergence treatment was used, do not exceed a total of 2.5 lb/ai/A/calendar year. **Rain-free period is 2 hours**.
pendimethalin Prowl/Pendimax 3.3EC Prowl H20 3.8 ACS + *atrazine* 4L	3 + 5	 29–38 oz 32 oz + 48–64 oz	 0.75–1 0.95 + 1.5–2	24 H/ —	Refer to herbicide table and label for specific product. Apply over-the-top after corn emergence but when weeds are less than 1" tall. For control of seedling grasses apply when no more than ½" tall. Consistency of control is contingent on timing of rainfall or irrigation after application. Do not use with fluid fertilizers after crop emergence. *Pendimethalin* or tank-mixtures including *pendimethalin* may cause crop injury expressed as restricted root growth and crop stunting. Potential for injury is greatest on sand or loamy sand soils under cool, wet conditions. Plant corn at least 1.5" deep when using *pendimethalin*. Can be applied up to 12" tall corn. **Tank-mix with *glyphosate* (RR hybrids) or Liberty (LL hybrids).**
bentazon Basagran/Broadloom 4SC	6	24–32 oz	0.75–1	48 H/ Grazing 12 D	Controls yellow nutsedge, cocklebur, bristly starbur, and certain other broadleaf weeds. Adjust rate according to weed size as noted on the label. A second application within 7–10 days will often be required for yellow nutsedge control. Add a crop oil concentrate at 1% v/v. **Rain-free period is 4 hours.**
carfentrazone Aim 2EC	14	0.50–1 oz	0.008–0.016	12 H/ Leaf Collars 14 D	For the control of pigweed, annual morningglory species (except smallflower), and tropical spiderwort. Can be applied over the top of corn until the V8 stage of growth. Aim will cause crop injury in the form of leaf speckling and necrosis but this injury will not affect yield. Use in combination with a crop oil concentrate at 1% v/v (1 gal/100 gal). Aim can betank-mixed with *glyphosate* (RR corn hybrids only), *2,4-D*, *atrazine*, and Accent. Refer to label for a more complete list of approved tank-mixes. **Rain-free period is 6–8 hours.**

HERBICIDE	MOA	BROADCAST RATE/ACRE: AMOUNT OF FORMULATION	BROADCAST RATE/ACRE: LBS AI/A	REI/PHI (Hours or Days)	REMARKS AND PRECAUTIONS
POSTEMERGENCE: OVER-THE-TOP *(continued)*					
2,4-D amine 3.8 lb/gal	4	8–16 oz	0.24–0.48	48 H/ 7 D	Refer to herbicide table and label for specific product. May be applied over-the-top of the crop and weeds until corn is 5–8" tall. Use only as a directed spray after corn is 8" tall. Do not apply after tassels appear. No spray additive is required. Corn is most subject to injury if it is rapidly growing and if soil moisture and temperature conditions are high or from over-the-top applications. If soil moisture levels and temperatures are high, use no more than 0.25 lb/ai/A. To minimize drift hazards where *2,4-D* sensitive crops are present, use *amine* formulations and observe drift control precautions noted on label. Check with seed supplier about corn hybrid tolerance to *2,4-D* before application. Do not tank-mix *2,4-D* with Roundup or Liberty.
pendimethalin Prowl/Pendimax 3.3EC Prowl H20 3.8 ACS trifluralin 4 lb/gal	3	 19–29 oz 24 oz 16–24 oz	 0.5–0.75 0.71 0.5–0.75	24 H/ —	**CULTI-SPRAY TECHNIQUE (Post-emergence Incorporated)** These treatments will provide residual control of annual grasses, including Texas panicum. **They will not control existing grasses.** They should be used to augment other weed control tactics. When using either of the treatments, the following steps must be followed: The herbicides must be applied to weed-free soil. Corn brace roots must be protected by soil thrown to the base of the stalk with a sweep or rolling cultivator prior to application. The herbicides can be applied over-the-top or post-directed, depending on corn size. A shallow, follow-up cultivation is required after application to minimize herbicide loss. Rainfall or irrigation amounts of 0.5–1" can be used instead of mechanical cultivation. Apply *Pendimethalin* when the corn is at least 4" tall until layby. Apply *trifluralin* when the corn is in the 2 true leaf stage until it reaches 30" in height.
dicamba Banvel (4 lb/gal) Clarity Sterling Vision, etc.	4	 8 oz 8 oz 8 oz 8 oz	0.25	24 H/ Grazing or Forage—milk stage or later	May be applied either over-the-top up to 8" corn then as a directed spray. Directed sprays are less likely to result in crop injury or drift hazards and will improve weed coverage in larger corn. Refer to label. Do not use crop or petroleum oils. **DO NOT** apply after corn is 36" tall or within 15 days of tassel emergence, whichever occurs first. Where *dicamba*-sensitive crops such as cotton, soybeans, tobacco, and vegetables are near treatment area, observe the following precautions to minimize drift hazards: 1. Use coarse sprays and spray pressure of less than 20 psi. 2. Apply only as a directed spray. 3. **DO NOT** apply if maximum daily temperature is expected to exceed 85° F. 4. **DO NOT** apply if winds exceed 5 mph and are blowing in the direction of the sensitive crop. **Rain-free period is 4 hours.**

HERBICIDE	MOA	BROADCAST RATE/ACRE		REI/PHI (Hours or Days)	REMARKS AND PRECAUTIONS
		AMOUNT OF FORMULATION	LBS AI/A		
POSTEMERGENCE: OVER-THE-TOP *(continued)*					
dicamba + *diflufenzopyr* + *isoxadifen* Status 56WDG	4 + 19	5–10 oz	0.125–0.25 + 0.05–0.10 0.175–0.350	24 H/ Grain 72 D Forage 32 D	Will control many annual broadleaf weeds. Include a NIS at 0.25% v/v and AMS at 5–17 lbs/100 gal. Can be applied from 4" tall corn (V2) to 36" tall corn (V10). Status can also be tank-mixed with Round Up or Liberty when used on RR or LL corn hybrids only. The normal use rate when tank-mixed with these herbicides is 5 oz/A. Status should not be tank-mixed with Dual Magnum, Harness, Outlook, Surpass, Lorsban, *2,4-D*, or Stinger. Rotational crops can be planted 120 days after application with the following exception: When Status is applied at 5 oz/A or less and field receives at least 1" of rainfall or irrigation, the following crops can be planted 30 days after application: alfalfa, cereal grain crops, cotton, grain sorghum, and soybeans. Field corn can be re-planted 7 days after application. Pre-slurry in water before mixing into larger spray tank. **Rain-free period is 4 hours.**
halosulfuron Profine Sandea 75 DF	2	0.67 oz	0.032	12 H/ Forage 30 D	Controls many annual broadleaf weeds and nutsedge. Can be applied over-the-top from spike stage through layby stage of corn. Use higher rates for nutsedge control and larger weeds. Can be tank-mixed with Banvel, Accent, *2,4-D*, Buctril, Beacon, and *atrazine*. The use of a non-ionic surfactant or crop oil is recommended. May be applied in a split application but do not exceed 2.67 oz/A/year. Rotational restrictions include the following: barley, oats, rye, wheat—2 months; cotton—4 months; peanuts—6 months; soybeans—9 months; onions—18 months. Refer to product label for additional crop rotation information. Pre-slurry in water before mixing into larger spray tank. **DO NOT use** Sandea/Profine if an OP soil insecticide (i.e. Counter) was used in-furrow. **DO NOT apply Sandea/Profine PRE in field corn.** **Rain-free period is 4 hours.**
nicosulfuron Accent 75G Accent Q 54.5 WG (includes crop safener)	2	 0.67 oz 0.9 oz	0.031	4 H/ Forage 30 D	Controls many annual and perennial grasses, including johnsongrass. **DO NOT** apply to corn treated with Counter insecticide due to severe crop injury or mortality. Can be applied over-the-top of corn up to 20" tall or before the V6 stage (whichever is more restrictive) and post-directed up to 36" tall. A nonionic surfactant (0.25% v/v) or crop oil concentrate (1% v/v) is required. Do not apply Accent within 7 days to corn treated with foliar-applied organophosphate insecticides or with herbicides containing bentazon or *2,4-D*. **DO NOT** apply organophosphate insecticides within 3 days after applying Accent. Refer to manufacturer's label for sprayer cleanup. **DO NOT** apply within 30 days of harvest. Accent Q formulation contains a crop safener (*isoxadifen*). Rotational restrictions include the following: soybeans—0.5 months; winter wheat, barley, rye—4 months; oats—8 months; cotton, sorghum, peanuts, tobacco—10 months. Pre-slurry in water before mixing into larger spray tank. **Rain-free period is 4 hours.**
nicosulfuron + *rimsulfuron* + *crop safener* Steadfast Q 37.7WDG	2	1.5 oz	0.024 + 0.012	4 H/ Forage 30 D	Can be applied over-the-top of corn up to 20" tall and exhibiting up to and including 6 leaf collars. When tank-mixed with *atrazine*, can only be applied to corn that is 12" tall or less. Use in combination with a NIS at 0.25% v/v or COC at 1% v/v + *ammonium-nitrogen* fertilizer (2 qt/A UAN or 2 lb/A AMS). **Do not tank-mix with Basagran, *2,4-D*, Lorsban, *parathion*, and *malathion*. Do not use on corn that was previously treated with Counter, Lorsban, and Thimet.** Rotational Restrictions: field corn—0 months; soybeans—15 days; small grains—4 months; cotton—10 months; sorghum/peanut—10 months (soil pH < 6.5). Steadfast Q contains a crop safener (*isoxadifen*). Recent results from UGA research suggests that a 1X rate of Steadfast Q applied to ALS-sensitive field corn hybrids (i.e. DKC62-08 and DKC64-69) can cause up to 4.7% yield losses when applied under weed-free conditions. Pre-slurry in water before mixing into larger spray tank. **Rain-free period is 4 hours.**

HERBICIDE	MOA	BROADCAST RATE/ACRE		REI/PHI (Hours or Days)	REMARKS AND PRECAUTIONS
		AMOUNT OF FORMULATION	LBS AI/A		
POSTEMERGENCE: OVER-THE-TOP (*continued*)					
mesotrione Callisto 4SC	27	3 oz	0.094	12 H/ Forage, Grain or Stover 45 D	May be useful for the post-emergence control of escaped Palmer amaranth (pigweed) in situations where *2,4–D* use would be undesirable or *glyphosate*, ALS, or *triazine*-resistance is suspected. Callisto will also provide residual control. Apply before Palmer amaranth exceeds 5" in height. **Do not use if the corn has been treated with a soil application of Counter or Lorsban.** Corn may be treated up to 30" tall or the 8-leaf stage of growth. Use in combination with a COC (1% v/v) and UAN (2.5% v/v) or AMS (8.5 lb/100 gal). When applied POST, Callisto can be tank-mixed with the following herbicides: *atrazine*; Accent; Basagran; Bicep II Magnum; Buctril; Moxy; *glyphosate*; Liberty; Steadfast Q. **Do not apply Callisto POST in a tank-mix with EC grass herbicides (i.e Dual Magnum, Outlook). Do not tank-mix with carbamate or organophosphate insecticides.** Rotational restrictions: field corn, grain sorghum—0 months; small grains and sugarcane—4 months; soybeans, cotton, peanuts, sunflowers, canola, tobacco—10 months; other crops—18 months. Temporary bleaching may occur under extreme weather conditions or when the crop is suffering from stress. Sold in various pre-mixes with *atrazine* + Dual Magnum (Lexar, Lumax). **Rain-free period is 1 hour.** Callisto does not provide effective control of Texas panicum or sicklepod. **Callisto Xtra** is a pre-mix formulation of Callisto (0.5 lb/gal) + *atrazine* (3.2 lb/gal). **Callisto GT** is a pre-mix formulation of Callisto (0.38 lb/gal) + Touchdown (3.8 lb ai/gal). Calibra is a pre-mix formulation of Callisto (0.28 lbs/gal) + Dual Magnum (2.82 lbs/gal).
tembotrione + crop safener Laudis 3.5SC	27	3 oz	0.082	12 H/ Forage 45 D	May be useful for the post-emergence control of escaped Palmer amaranth (pigweed) in situations where *2,4-D* use would be undesirable, or *glyphosate*, ALS, or *triazine*-resistance is suspected. Apply post-emergence to field corn from emergence to V8 stage of growth. Two applications can be made if needed (14 days apart). Can be tank-mixed with the following herbicides: *atrazine*, Liberty, Define, *glyphosate*, Accent, Option, Steadfast, Buctril. Recent UGA research has indicated that Laudis can also be tank-mixed with residual grass herbicides such as Prowl, Dual Magnum, Warrant, Zidua, Anthem Max, and Outlook. But, tank-mixes with Dual Magnum/Outlook/Anthem Max have increased crop injury (transient). Use a methylated seed oil (MSO) at 1% v/v and nitrogen (1.5 qt/A UAN or 1.5 lb/A AMS). **Rain-free period is 1 hour.** Crop rotation restrictions: small grains—4 months; soybeans—8 months; cotton and sorghum—10 months; peanut—12 months. In some UGA field trials, Laudis has not been as effective as Accent (*nicosulfuron*) in controlling Texas panicum. Laudis can be used in fields previously treated with in-furrow applications of Counter.
topramezone Impact/Armezon 2.8SC	27	0.75 oz	0.016	12 H/ 45 D	May be most useful in areas where *atrazine*-resistant Palmer amaranth is a problem. Can be applied post-emergence until 45 days before harvest. Tank-mix with *atrazine*, *glyphosate* (RR corn), or Liberty (LL corn). Use in combination with MSO or COC at 1% v/v and 1.25% v/v UAN or AMS (8.5-17 lb/100 gal water). Rotation restrictions: wheat—3 months; cotton, peanut, soybean, sorghum, sunflower—9 months; tobacco—18 months. Impact can be used in fields previously treated with in-furrow applications of Counter. **Armezon Pro is a pre-mix of Armezon + Outlook (*dimethenamid-p*). Rain-free period is 1 hour.**
topramezone + atrazine Impact Z 4.26SC	27 + 5	8–21.4 oz	0.016–0.043 + 0.25–0.67	12 H/ 45 D	May be of use in fields where *atrazine*-resistant Palmer amaranth is a problem. Can be applied up until corn is 12" tall. Can be tank-mixed with Liberty (LL corn) or *glyphosate* (RR corn) and/or additional *atrazine*. Impact Z can be used in fields previously treated with in-furrow applications of Counter. Apply in 15 GPA and use nozzle/pressure that produces medium to coarse droplets (226–400 microns). Use with MSO @ 0.5% v/v (2 qt/100 gals) and AMS (2.5% v/v). Crop rotation restrictions: cotton, peanut, sorghum, soybean, wheat—9 months. **Rain-free period is 4 hours.**
thiencarbazone + *tembotrione* *+ crop safener* Capreno 3.45SC	2 + 27	3 oz/A	0.013 + 0.0675	12 H/ 45 D	Contains same active ingredient as Laudis. Apply post-emergence for the control of Palmer amaranth and certain annual grasses such as crabgrass and Texas panicum. Capreno can be applied over-the-top from V1–V6 stage of growth and post-directed from V6–V7 stage of growth. Can be tank-mixed with *atrazine*, *glyphosate* (RR corn), or Liberty (LL corn). Use in combination with a COC at 1% v/v and 1.5 qt/A UAN or 1.5 lb/A AMS. **Do not use on field corn treated with OP soil insecticides.** Recent results from UGA research suggests that a 1X rate of Capreno applied to ALS-sensitive field corn hybrids (i.e. DKC62-08 and DKC64-69) can cause up to 4.7% yield losses when applied under weed-free conditions. Crop rotation restrictions: wheat—4 months; cotton, soybean, sorghum—10 months; peanut—11 months; tobacco—12 months, canola—18 months. **Rain-free period is 1 hour.** Capreno contains a crop safener (*isoxadifen*).

HERBICIDE	MOA	BROADCAST RATE/ACRE		REI/PHI (Hours or Days)	REMARKS AND PRECAUTIONS
		AMOUNT OF FORMULATION	LBS AI/A		
POSTEMERGENCE: OVER-THE-TOP (*continued*)					
nicosulfuron + mesotrione + crop safener Revulin Q 51.2DG	2 + 27	3.4–4 oz	0.031–0.036 + 0.078–0.092	12 H/ Grain 70 D Forage 45 D	Before using Revulin Q, check with seed supplier for corn hybrid tolerance information. Can be applied post-emergence in field corn that is < 20" tall or up to and including the V5 stage of growth. Can be applied post-directed to corn that is 20–30" tall or in the V6–V7 stage. Use in combination with a COC at 1% v/v. Can tank-mix with *glyphosate* (RR corn), Liberty (LL corn), or *atrazine*. Crop rotation restrictions: winter cereals—4 months; cotton, sorghum, soybeans—10 months; peanut, tobacco—18 months. **DO NOT use Revulin Q if an OP soil insecticide (i.e. Counter) was used in-furrow.** Revulin Q contains a crop safener (*isoxadifen*). **Rain-free period is 4 hours.** Revulin Q is very useful in fields with a known history of *glyphosate* and/or *atrazine* resistant Palmer amaranth. Revulin Q may cause temporary crop bleaching.
S-metolachlor + atrazine + mesotrione + bicyclopyrone Acuron 3.44ZC	5 + 15 + 27	48 oz/A	0.80 + 0.375 + 0.09 + 0.02	24 H/ Grain 60 D Forage 45 D	Apply early postemergence in combination with *glyphosate* (RR hybrids) or Liberty (LL hybrids) for the improved control of both broadleaf and grass weeds. Can be applied up to 12" tall corn. No adjuvants are required when using a "loaded" formulation of *glyphosate*. NIS can be used with "unloaded" *glyphosate* formulations. AMS is the only adjuvant that can be added when used in combination with Liberty. Do not use Acuron if Counter has been applied in-furrow. Crop rotation restrictions are as follows: field corn, sweet corn = 0 months; small grains = 4 months; cotton, peanut, soybean, sorghum = 10 months. **Rain-free period = none listed on label. Would suggest at least 2 hours or more.**
tolpyralate Shieldex 3.33SC	27	1-1.35 oz	0.026-0.035	12 H/ Grain 45 D Forage/Silage 21 D	Apply POST up to V6 stage or 20" tall whichever is more restrictive. May cause temporary/transient crop bleaching. No more than 2 applications can be made (14 days apart). Can be tank-mixed with *atrazine*, Roundup, or Liberty. Use in combination with NIS (0.25% v/v) or COC (1% v/v). Can be used where Counter was applied in-furrow. Crop rotation restrictions: wheat/rye/oats/barley/ryegrass = 3 months; cucurbits/green bean/snap bean/peanut/cotton/sorghum/soybean/sunflower/tomato = 9 months. **Rain-free period = 1 hour.**
POSTEMERGENCE-HERBICIDE TOLERANT HYBRIDS—PLEASE NOTE: Herbicide selection should not be the dominant factor in determining varietal selection. Consult your local Extension personnel or seed dealer when choosing a hybrid(s) that is best adapted for your area and farming operation.					
glufosinate Liberty 280 2.34SL Interline 2.34SL Kong 2.34SL	10	29–43 oz	0.53–0.77	12 H/ Grain 70 D Forage 60 D	**USE ONLY ON "LIBERTY-LINK" CORN HYBRIDS. APPLICATIONS OF LIBERTY TO NON-TOLERANT HYBRIDS WILL RESULT IN SEVERE CROP INJURY AND/OR CROP DEATH**. Can be applied post-emergence from crop emergence until the V6 stage of growth. For corn 24"–36" tall, only apply Liberty with drop nozzles and avoid spraying directly into the whorl or leaf axils. Broad-spectrum material with limited systemic activity. Possesses no soil residual activity. Effective on a number of grassy weeds including Texas panicum and several broadleaf species including sicklepod and morningglories. Thorough coverage is essential—use with at least 15–20 gallons water/A. Apply with nozzles and pressure that deliver medium to coarse spray droplets (226–400 microns). Should be tank-mixed with *atrazine* for broader spectrum and more consistent control. No major rotation restrictions exist with Liberty. Liberty is weak on arrowleaf sida. Do not apply more than 2 applications of Liberty (≥ 7 day interval). Do not apply more than 87 oz/A of Liberty on corn per growing season. **Applications of Liberty should be made between dawn and 2 hours before sunset for optimum weed control and with pressure/nozzles that produce medium to coarse droplets. Rain-free period is 4 hours**.
topramezone + glufosinate Sinate 3.47LC	27 + 10	21–28 oz	0.0164–0.022 + 0.40–0.54	12 H/ 60 D	Only for use on Liberty-Link or *glufosinate*-resistant corn hybrids. Apply POST (up to V7 or 24"). Use drop nozzles for corn 24–36" tall. Apply in 15 GPA using nozzles/pressure that product medium to coarse droplets (226–400 microns). Can be tank-mixed with *atrazine*. Can use either MSO or COC (1% v/v) + AMS. Can be used where Counter was applied INFR. Crop rotation restrictions: small grains = 3 months; cotton, peanut sorghum, soybean, sunflower = 9 months; Rain-free period = 4 hours.
glyphosate + S-metolachlor Sequence 5.25EW	15	32–40 oz	0.56–0.70 + 0.75–0.94	24 H/ Grain 50 D Forage 30 D	**FOR USE ONLY ON ROUNDUP READY CORN HYBRIDS. APPLICATIONS OF *GLYPHOSATE* TO NON-TOLERANT HYBRIDS WILL RESULT IN SEVERE CROP INJURY.** Can be applied from corn emergence until corn plants reach 30" in height. Do not exceed 2.5 pts/A in a single application or 5 pts total/A/year. Very effective for the control of tropical spiderwort if applied before the weed exceeds 1". Can be tank-mixed with *atrazine* for improved broadleaf weed control.

HERBICIDE	MOA	BROADCAST RATE/ACRE: AMOUNT OF FORMULATION	BROADCAST RATE/ACRE: LBS AI/A	REI/PHI (Hours or Days)	REMARKS AND PRECAUTIONS
POSTEMERGENCE: OVER-THE-TOP (*continued*)					
POST-EMERGENCE-HERBICIDE TOLERANT HYBRIDS—PLEASE NOTE: Herbicide selection should not be the dominant factor in determining varietal selection. Consult your local Extension personnel or seed dealer when choosing a hybrid(s) that is best adapted for your area and farming operation.					
glyphosate + *S-metolachlor* + *atrazine* Expert 4.88SC	15 + 5	80–120 oz	0.63–0.94 + 1.09–1.63 + 1.34–2	24 H/ Forage 30 D	**FOR USE ONLY ON ROUNDUP READY CORN HYBRIDS. APPLICATIONS OF *GLYPHOSATE* TO NON-TOLERANT HYBRIDS WILL RESULT IN SEVERE CROP INJURY AND/OR CROP DEATH.** Expert can be applied over-the-top of RR corn up until a maximum corn height of 12".
glyphosate + *S-metolachlor* + *mesotrione* Halex GT 4.389 lb/gal	9 + 15 + 27	58–64 oz	0.941–1.568 + 0.941–1.568 + 0.094–0.105	24 H/ Forage, Grain or Stover 45 D	**FOR USE ONLY ON ROUNDUP READY CORN HYBRIDS.** Can be applied from corn emergence up until 30" or 8 leaf stage of growth. *Atrazine* can be tank-mixed with Halex if desired. Add a NIS at 0.25% v/v + AMS at 8.5–17 lb/ 100 gallons of water. Do not use Halex GT if OP insecticides have been used at planting. Rotation restrictions: corn—0 months; grain sorghum (Concep treated)—0 months; barley, oats, wheat, rye—4 months; cotton, peanuts, soybeans, sunflowers, tobacco—10 months; canola—12 months. Halex GT may cause temporary crop bleaching and buggy-whipping. Check with seedsman for potential corn hybrid tolerance issues. **Rain-free period is 1 hour.** Mixing sequence/ order is critical with Halex GT in order to prevent problems. Consider the following mixing order: 1) fill tank ⅓ to ½ withclean water and start agitation; 2) add AMS if needed; 3) add NIS; 4) Add *atrazine* if needed: 5) add Halex GT; 6) add other EC products if needed but EC formulations will increase crop injury; 7) fill tank with remaining amount of clean water. To minimize injury potential from Halex GT avoid applications during cool/wet periods (< 50 F). If additional *glyphosate* is needed, only use K-salt formulations. The use of IPA formulations will result in mixing problems (precipitates).
glyphosate + *S-metolachlor* + *mesotrione* + *bicyclopyrone* Acuron GT 4.295CZ	15 + 9 + 27 + 27	60 oz	0.94 + 0.94 + 0.094 + 0.045	12 H/ 45 D	**ONLY FOR USE ON *GLYPHOSATE*-RESISTANT CORN HYBRIDS!** Can be applied POST up until V8 stage or 30" tall (most restrictive). Include a NIS (0.25% v/v) and AMS (8.5–17 lbs/100 gals. May cause temporary/transient crop bleaching. Can be tank-mixed with *atrazine* (up to 12" tall corn), or dicamba (up to 8" tall corn, post-direct after that). **Do not** use if Counter was applied in-furrow for soil insect/nematode control. **Do not** tank-mix with EC formulated grass herbicides (i.e. Dual Magnum, Outlook). Do not apply an OP insecticide within 7 days before/after Acuron GT. Crop rotation restrictions: small grains = 4.5 months; cotton/peanut/soybean/ sorghum = 10 months. **Rain-free period = x.** Consider the following mixing order: 1) fill tank ½ with clean water and start agitation; 2) add AMS if needed; 3) add NIS; 4) Add *atrazine* if needed: 5) add Acuron GT; and 6) fill tank with remaining amount of clean water. To minimize injury potential from Acuron GT, avoid applications during cool/wet periods (< 50 F).
glyphosate Numerous trade names 3 lb ae/gal 3.73 lb ae/gal 4 lb ae/gal 4.17 lb ae/gal 4.50 lb ae/gal 4.80 lb ae/gal 5 lb ae/gal	9	32 oz 26 oz 24 oz 23 oz 22 oz 20 oz 19 oz	0.75 ae	4 H/ Grain 50 D Forage 50 D	**FOR USE ONLY ON ROUNDUP READY CORN HYBRIDS. APPLICATIONS OF *GLYPHOSATE* TO NON-TOLERANT HYBRIDS WILL RESULT IN SEVERE CROP INJURY AND/OR CROP DEATH.** Can be tank-mixed with *atrazine*, Dual, Harness, Harness Xtra, Micro-Tech, Bullet, Partner, or Permit herbicides. Various formulations of *glyphosate* are available. Not all formulations of *glyphosate* are labeled for use on RR corn hybrids. Please refer to specific product label. Sequence is a pre-mix of *glyphosate* + *S-metolachlor*. Expert is a pre-mix of *glyphosate* + *S-metolachlor* + *atrazine*. Halex GT is a pre-mixture of *glyphosate* + S-*metolachlor* + *mesotrione*. **Allow a minimum of 10 days between in-crop applications.** **USE RATE TABLE (lb ae/A):** — **RR2–Corn** — **RR-Corn** Normal Application Rate — 0.75 — 0.75 Maximum Application Rate — 1.12 — 0.75 Maximum Total In-Crop Rate — 2.25* — 1.50* Application Timing — Up to V8 or 30" 30–48" (drops) — Up to V8 or 30"

HERBICIDE	MOA	BROADCAST RATE/ACRE		REI/PHI (Hours or Days)	REMARKS AND PRECAUTIONS
		AMOUNT OF FORMULATION	LBS AI/A		
POSTEMERGENCE-DIRECTED					
ametryn Evik 80DF	6	1.25–2 lb	1–1.6	12 H/ Grazing 30 D Forage 30 D	Apply only as a directed spray to corn. Minimum corn height: *ametryn* 12", *linuron* 15", *paraquat* 10". Spray to cover weeds no more than 3–4" tall. Where rate range is given, use lower rate when weeds are no taller than 2" and higher rate for weeds up to 4" tall. Use a nonionic surfactant to improve spray coverage of weeds (*ametryn* and *linuron*—0.5% v/v; *paraquat*—0.25% v/v). **DO NOT** apply Evik (*ametryn*) within 3 weeks of tasseling. With *paraquat* arrange nozzles to spray no higher than lower 3" of stalks. Use Aim for the control of annual morningglory, pigweed, and tropical spiderwort. Add a COC at 1% v/v (1 gal/100 gal). Avoid directing the spray into the whorl of the plant. Aim provides no residual control. When using Evik post-directed in field corn, consider the following: 1) Apply in 20 GPA 2) Pre-slurry before mixing 3) Purchase new product 4) **Strong** sprayer agitation is required Any person who intends to use paraquat must be a certified applicator and successfully complete an EPA approved training program (https://www.epa.gov/pesticide-worker-safety/paraquat-dichloride-training-certified-applicators).
linuron 4L 50DF	7	1.25–1.5 lb 1.25–1.50 pt	0.63–0.75	24 H/ 57 D	
paraquat 2 lb/gal 3 lb/gal	22	16–32 oz 11–21 oz	0.25–0.50	12 H/	
carfentrazone Aim 2EC	14	0.5–1.9 oz	0.08–0.031	12 H/ (before 14 leaf collars)	
MINIMUM TILLAGE					
paraquat 2 lb/gal 3 lb/gal	22	30–60 oz 20–40 oz	0.47–0.94	24 H/ —	Use with a nonionic surfactant (0.25% v/v for contact kill of emerged annual weeds. *Paraquat* will not adequately control horseweed, swinecress, purslane speedwell, or curly dock. Apply prior to, during, or after planting, but prior to crop emergence. Use 20–60 gallons of spray solution to assure good spray coverage. Use higher GPA for heavier weed infestations and where crop residue or stubble is dense. *Paraquat* does not provide residual control. *Paraquat* can be tank-mixed with *atrazine*, Dual, Warrant, Zidua, or Anthem. Can also be tank-mixed with *atrazine*, *2,4-D*, or Aim to improve burndown weed control. However, if *2,4-D* is used, corn planting must be delayed for 7–14 days. Any person who intends to use paraquat must be a certified applicator and successfully complete an EPA approved training program (https://www.epa.gov/pesticide-worker-safety/paraquat-dichloride-training-certified-applicators).
glyphosate Numerous trade names 3 lb ae/gal 3.73 lb ae/gal 4 lb ae/gal 4.17 lb ae/gal 4.50 lb ae/gal 4.80 lb ae/gal 5 lb ae/gal	9	 16–128 oz 13–103 oz 12–96 oz 11.7–92 oz 11–85 oz 10–80 oz 10–77 oz	0.38–3 ae	4 H/	Use 0.38–1.13 lbs ae/A for control of most emerged annual grasses and broadleaf weeds. Use 1.5–3 lbs ae/A for control of perennial grasses and broad leaf weeds. Apply with 10–40 gal water/A immediately before, during or after planting, but before crop emergence. As stubble, crop residue or weed density increases, GPA and *glyphosate* rate should be increased (refer to label). ***Glyphosate* tank mixtures are not recommended for bermudagrass or johnsongrass control in minimum tillage systems.** Weed kill from *glyphosate* treatments applied as a tank mixture with residual herbicides has not been as consistent as when *glyphosate* and pre-emergence herbicides are applied separately. Can be tank-mixed with *atrazine*, *dicamba*, *2,4-D*, or Aim to improve burndown weed control. However, if *2,4-D* is used, corn planting must be delayed for 7-14days.
glufosinate Liberty 280 2.34SL Kong Interline	10	29–43 oz	0.53–0.77	12 H/ 60 D forage 70 D grain	To kill emerged annual grasses and weeds, apply during or after planting, but before crop emerges. Liberty will not provide adequate burndown control of small grains. Very effective for burndown control of volunteer peanuts. Can be tank-mixed with *glyphosate* or *2,4-D*. Generic formulations of *glufosinate* are also available including Kong and Interline. Generic formulations of *glufosinate* should be used with caution because limited data has been collected by UGA.

FIELD CORN WEED CONTROL

HERBICIDE	MOA	BROADCAST RATE/ACRE: AMOUNT OF FORMULATION	BROADCAST RATE/ACRE: LBS AI/A	REI/PHI (Hours or Days)	REMARKS AND PRECAUTIONS
MINIMUM TILLAGE (*continued*)					
flumioxazin Valor SX 51WG/Valor EZ 4SC Outflank Panther Rowel	14	2 oz	0.064	12 H/ —	**Use only on no-till or minimum tillage fields where last year's crop residue has not been incorporated into the soil.** Tank-mix with *glyphosate* or *paraquat* to improve burndown control of certain weeds. Will also provide residual control of many broadleaf weeds including pigweed and Florida beggarweed. Corn can be planted 7 days after application if a minimum of 25% of the soil surface is covered with the residue of the preceding crop and a minimum of 0.25" of rainfall has occurred between application and planting. If cover is < 25%, corn can be planted in 14 days after application in fields where last year's crop residue has not been incorporated into the soil. Do not irrigate from emergence to 2-leaf stage. Corn planted in other tillage systems should not be planted for at least 30 days after application. Pre-slurry in water before mixing into a larger spray tank. ***Although labeled, UGA weed scientists do not recommend that Valor be used prior to planting field corn. Field corn is the only major row crop in GA where PPO herbicides are not over-used.***
carfentrazone Aim 2EC	14	0.5–1 oz	0.008–0.016	12 H/	Tank-mix with *glyphosate or glufosinate* for the improved control of large morninglories. Corn can be planted immediately.
pyraflufen ET 0.208EC	14	0.5–2 oz	0.0008–0.003	12 H/ Silage 50 D Grain or Stover 90 D	Tank-mix with *glyphosate or glufosinate* for the improved control of large morninglories. Corn can be planted immediately.
2,4-D amine Various trade names—3.8 lb/gal	4	16 oz	0.475	48 H/	Very effective for cutleaf evening primrose control. Can be tank-mixed with other burndown herbicides. Corn can be planted 7 days after application. When using Enlist One formulation, all labeled restrictions must be followed (nozzle type, boom height, wind speed, buffer zones, etc.)
2,4-D choline Enlist One (3.8 lb ai/gal)	4	16 oz	0.475	48H/	Corn can be planted in 7 days. Refer to latest label for specific information about runoff mitigation practices that must be implemented.
thifensulfuron + tribenuron FirstShot SG 50SG	2	0.5–0.80 oz	0.008–0.013 + 0.008–0.013	12 H/ —	Tank-mix with *glyphosate, paraquat*, or Liberty for improved control of broadleaf weeds. Corn can be planted in 14–21 days depending upon soil type. (21 days for sand, loamy sands, or sandy loams).
dicamba Banvel Clarity Diablo Rifle Sterling, etc. 4SL	4	8 oz	0.25	24 H/ Grazing or Forage—milk stage or later	Apply in combination with either Liberty, *glyphosate*, or *paraquat* in fields where marestail/ horseweed is a problem. There is no plant-back restriction for field corn following a burndown application of *dicamba*. Corn must be planted at least 1.5" deep. **Rain-free period is 4 hours.** Pay attention to nearby sensitive broadleaf crops such as cotton, peanut, soybean, and vegetables.
tiafenacil Reviton	14	1–2 fl oz	0.022–0.044	12 H/ N/A	Tank-mix with *glyphosate* or *glufosinate* for improved weed control. Reviton improves overall weed control of several weeds including wild radish, morningglory, Palmer amaranth, cutleaf eveningprimrose, and grasses. Reviton provides very little residual weed control. Corn can be planted immediately. **Rain-free period is 1 hour.**

HERBICIDE	MOA	BROADCAST RATE/ACRE		REI/PHI (Hours or Days)	REMARKS AND PRECAUTIONS
		AMOUNT OF FORMULATION	LBS AI/A		
BURNDOWN CONTROL OF RR FIELD CORN (REPLANTING)					
clethodim SelectMax/TapOut 0.97EC Clethodim 2EC	1	 6 oz 3 oz	0.045		For the control of an existing stand of RR field corn or volunteer RR field corn (up to 12" tall) prior to replanting field corn. Use a NIS (0.25% v/v) + AMS (2.5 lbs/A). **Corn can be replanted in 6 days.**
HARVEST AID					
2,4-D Numerous trade names 3.8 lb/gal	4	 1–2 pt	0.48–0.96	48 H/ 7 D	Apply by air or high clearance equipment when corn reaches the hard dough stage to suppress, control or decrease seed production of cocklebur, jimsonweed, ragweed, or vines that interfere with harvesting. Observe drift control precautions noted for post-emergence use of *2,4-D*. No adjuvant is recommended. Wait 5-7 days after application before harvesting.
glyphosate Numerous trade names 3 lb ae/gal 3.73 lb ae/gal 4 lb ae/gal 4.17 lb ae/gal 4.50 lb ae/gal 4.80 lb ae/gal 5 lb ae/gal	9	 32 oz 26 oz 24 oz 23 oz 22 oz 20 oz 19 oz	0.75 ae	4 H/ 7 D	Apply 7 days before harvest when kernel moisture is less than 35% and after black layer formation. Avoid drift onto sensitive crops. **Do not use on corn grown for seed if hybrid is not RR Corn 2**. Not all formulations of *glyphosate* may be labeled for use as a harvest aid. Please refer to the specific product label.
carfentrazone Aim 2EC	14	 1.6–1.9 oz	0.025–0.030	12 H/ 3 D	Apply for the defoliation/desiccation of annual morningglories and pigweed. Use a COC at 1% v/v. Can be applied aerially or by ground. Do not apply within 3 days of harvest. Do not graze corn stover until 14 days after application.
paraquat 3 lb/gal 2 lb/gal	22	 13–21 oz 19–32 oz	0.30–0.50	24 H/ 7 D	Application must be made at least 7 days before harvest. Apply after the corn is mature and black layer has formed at the base of the kernels. Add a NIS at 0.25% v/v (1 qt/100 gals). Can be applied aerially or by ground. Any person who intends to use *paraquat* must be a certified applicator and successfully complete an EPA approved training program (**https://www.epa.gov/pesticide-worker-safety/paraquat-dichloride-training-certified-applicators**).
sodium chlorate Defol 5 (others)		 154 oz	6.0	12 H/ 14 D	Apply 5 days prior to black layer (¾ milk line). Use with COC (1% v/v) or NIS (0.25% v/v). Can be applied by air (5–7 GPA) or ground (10–20 GPA). Use as a harvest aid to desiccate trashy weeds in early maturing corn. Use the low dilution rates when weeds are small and the crop canopy is fairly open. Desiccation of morninglory and other vines may be erratic. DO NOT graze treated fields or feed fodder, forage, or residual grain within 14 days of application. *Sodium chlorate* works better if applied when temperatures are above 60°F.

SUGGESTED HERBICIDE PROGRAMS FOR THE POST-HARVEST CONTROL OF TROPICAL SPIDERWORT/BENGHAL DAYFLOWER:*

OPTION 1: *2,4-D amine* or *choline* 3.8SL at 24 oz/A followed by *2,4-D amine* or *choline* 3.8SL at 24 oz/A or *paraquat* 3SL (various formulations) at 32 oz/A + COC at 1% v/v or Aim 2EC at 1.5 oz/A + COC at 1% v/v 7–14 days later.

OPTION 2: *paraquat* 3SL (various formulations) at 32 oz/A + COC at 1% v/v followed by *paraquat* 3SL (various formulations) at 32 oz/A + COC at 1% v/v 7–14 days later.

OPTION 3: Aim 2EC at 1.5 oz/A + COC at 1% v/v followed by Aim 2EC at 1.5 oz/A + COC at 1% v/v 7–14 days later.

***If Benghal dayflower/tropical spiderwort is taller than 6", *paraquat* or *2,4-D* would be preferred.**

METOLACHLOR AND *S-METOLACHLOR* PRODUCTS

TRADE NAME	ACTIVE INGREDIENT	LBS/GAL	CORN SAFENER	COMPANY
Brawl	*S-metolachlor*	7.62	none	Tenkoz
Brawl II	*S-metolachlor*	7.64	*benoxacor*	Tenkoz
Charger Basic	*S-metolachlor*	7.62	none	Agriliance
Charger Max	*S-metolachlor*	7.64	*benoxacor*	Agriliance
Cinch	*S-metolachlor*	7.64	*benoxacor*	DuPont
Dual Magnum	*S-metolachlor*	7.62	none	Syngenta
Dual II Magnum	*S-metolachlor*	7.64	*benoxacor*	Syngenta
EverpreX	*S-metolachlor*	7.62	none	Corteva
Helmet	*metolachlor*	7.8	*dichlormid*	Helm
Me-Too-Lachlor	*metolachlor*	8.0	none	Drexel
Me-Too-Lachlor II	*metolachlor*	7.8	*dichlormid*	Drexel
Medal	*S-metolachlor*	7.62	none	Syngenta
Mocassin	*S-metolachlor*	8.0	none	UPI
Parallel	*metolachlor*	7.8	*benoxacor*	Adama
Parallel PCS	*metolachlor*	8.0	none	Adama
Stalwart	*metolachlor*	8.0	none	SipCam
Stalwart C	*metolachlor*	7.8	*dichlormid*	SipCam

PREPACKAGED TANK-MIXES FOR FIELD CORN

See manufacturer's label for specific rates and application uses.

PRODUCT NAME	ACTIVE INGREDIENTS (LBS AI/GAL OR % AI)
Acuron	*S-metolachlor* (2.14) + *atrazine* (1.0) + *mesotrione* (0.24)+ *bicyclopyrone* (0.06)
Acuron GT	*glyphosate* (2.0) + *S-metolachlor* (2.0) + *mesotrione* (0.2) + *bicyclopyrone* (0.095)
Anthem Maxx	*pyroxasulfone* (4.174) + *fluthiacet* (0.126)
Armezon Pro	*topramezone* (0.1) + *dimethenamid-p* (5.25)
Axiom	*flufenacet* (54.4%) + *metribuzin* (13.6%)
Axiom AT	*flufenacet* (19.6%) + *metribuzin* (4.9%) + *atrazine* (50.5%)
Balance Flexx	*isoxaflutole* (2.0) + *cyprosulfamide*
Basis	*rimsulfuron* (50%) + *thifensulfuron* (25%)
Basis Gold	*rimsulfuron* (1.34%) + *nicosulfuron* (1. 34%) + *atrazine* (82.44%)
Bicep	*metolachlor* (3.33) + *atrazine* (2.67)
Bicep II	*metolachlor* (3.23) + *atrazine* (2.67) + *benoxacor*
Bicep Lite II	*metolachlor* (2.3) + *atrazine* (1. 67) + *benoxacor*
Bicep II Magnum	*S-metolachlor* (2.4) + *atrazine* (3.1) + *benoxacor*
Bicep Lite II Magnum	*S-metolachlor* (3.33) + *atrazine* (2.67) + *benoxacor*
Breakfree ATZ	*acetochlor* (3.0) + *atrazine* (2.25) + *dichlormid*
Breakfree ATZ Lite	*acetoachlor* (4.0) + *atrazine* (1.50) + *dichlormid*
Bullet	*alachlor* (2.5) + *atrazine* (1.5)
Calibra	*s-metolachlor* (2.82) + *mesotrione* (0.28)
Callisto Xtra	*atrazine* (3.2) + *mesotrione* (0.5)
Camix	*mesotrione* (0.33) + *S-metolachlor* (3.3 4) + *benoxacor*
Capreno	*thiencarbazone* (0.57) + *tembotrione* (2.88) + *isoxadifen*

PRODUCT NAME	ACTIVE INGREDIENTS (LBS AI/GAL OR % AI)
Celebrity Plus	*dicamba* (4 6.6%) + *diflufenzopyr* (18.1%) + *nicosulfuron* (10.6%)
Charger Max ATZ	*S-metolachlor* (2.4) + *atrazine* (3.1) + *benoxacor*
Charger Max ATZ Lite	*S-metolachlor* (3.33) + *atrazine* (2.67) + *benoxacor*
Cinch ATZ	*S-metolachlor* (2.4) + *atrazine* (3.1) + *benoxacor*
Cinch ATZ Lite	*S-metolachlor* (3.33) + *atrazine* (2.67) + *benoxacor*
Corvus	*thiencarbazone* (0.75) + *isoxaflutole* (1.88) + *cyprosulfamide*
Degree Xtra	*acetochlor* (2.7) + *atrazine* (1.34)
Distinct	*diflufenzopyr* (20%) + *dicamba* (50%)
Empyros	*tolpyralate* (0.1) + *S-metolachlor* (3.72)
Empyros Triad	*tolpyralate* (0.043) + *S-metolachlor* (1.75) + *atrazine* (1.75)
Empyros Triad Flex	*tolpyralate* (0.048) + *S-metolachlor* (2.47) + *atrazine* (0.93)
Epic	*flufenacet* (48%) + *isoxaflutole* (10%)
Equip	*foramsulfuron* (30%) + *idosulfuron* (2%)
Exceed	*primisulfuron* (28.5%) + *prosulfuron* (28.5%)
Expert	*S-metolachlor* (1.74) + *atrazine* (2.14) + *glyphosate* (1.0)
FieldMaster	*acetochlor* (2.0) + *atrazine* (1.5) + *glyphosate* (0.75)
FulTime	*acetochlor* (2.4) + *atrazine* (1.6)
Guardsman	*dimethenamid* (2.33) + *atrazine* (2.67)
Guardsman Max	*dimethenamid-p* (1.7) + *atrazine* (3.3)
Halex GT	*mesotrione* (0.209) + *S-metolachlor* (2.09) + *glyphosate* (2.09)

PREPACKAGED TANK-MIXES FOR FIELD CORN (*continued*)

See manufacturer's label for specific rates and application uses

PRODUCT NAME	ACTIVE INGREDIENTS (LBS AI/GAL OR % AI)
Harness Xtra	*acetochlor* (4.3) + *atrazine* (1.7)
Harness Extra 5.6L	*acetochlor* (3.1) + *atrazine* (2.5)
Hornet	*flumetsulam* (23%) + *clopyralid* (62.5%)
Impact Core	*acetochlor* (7.08) + *topramezone* (0.071)
Impact Z	*atrazine* (4.0) + *topramezone* (0.26)
Imperium	*EPTC* (5.6) + *acetochlor* (1.4)
Keystone	*acetochlor* (3.0) + *atrazine* (2.5)
Keystone LA	*acetochlor* (4.0) + *atrazine* (1.5)
Kyro	*acetochlor* (2.78) + *topramezone* (0.046) + *clopyralid* (0.247)
Laddock	*bentazon* (1.66) + *atrazine* (1.66)
LandMaster	*glyphosate* (1.2) + *2,4-D* (1.9)
Lariat	*alachlor* (2.5) + *atrazine* (1.5)
Lexar	*S-metolachlor* (1.74)+ *atrazine* (1.74) + *mesotrione* (0.224) + *benoxacor*
Lightning	*imazethapyr* (52.5%) + *imazapyr* (17.5%)
Liberty ATZ	*atrazine* (3.3) + *glufosinate* (1.0)
Lumax	*S-metolachlor* (2.68) + *mesotrione* (0.268) + *atrazine* (1.0) + *benoxacor*
Marksman	*dicamba* (1.1) + *atrazine* (2.1)
Maverick	*mesotrione* (0.829) + *clopyralid* (0.693) + *pyroxasulfone* (0.693)
Parallel Plus	*atrazine* (2.8) + *metolachlor* (2.7) + *benoxacor*
Prequel	*rimsulfuron* (15%) + *isoxaflutole* (30%)
Priority	*carfentrazone* (12.5%) + *halosulfuron* (50.0%)

PRODUCT NAME	ACTIVE INGREDIENTS (LBS AI/GAL OR % AI)
Propel ATZ	*dimethenamid-p* (1.7) + *atrazine* (3.3)
Propel ATZ Lite	*dimethenamid-p* (2.25) + *atrazine* (2.75)
Radius	*flufenacet* (3.57) + *isoxaflutole* (0.43)
Resolve Q	*rimsulfuron* (18.4%) + *thifensulfuron* (4.0%) + *isoxadifen*
Realm Q	*rimsulfuron* (7.5%) + *mesotrione* (31.25%) + *isoxadifen*
Resicore REV	*acetochlor* (2.8) + *mesotrione* (0.27) + *clopyralid* (0.19)
Revulin Q	*mesotrione* (36.8%) + *nicosulfuron* (14.1%) + *isoxadifen*
Shotgun	*atrazine* (2.25) + *2,4-D* (1.0)
Sinate	*topramezone* (1) + *glufosinate* (2.47)
Stalwart Xtra	*atrazine* (3.1) + *metolachlor* (2.4) + *dichlormid*
Steadfast	*nicosulfuron* (50%) + *rimsulfuron* (25%)
Steadfast ATZ	*nicosulfuron* (2.7 %) + *rimsulfulorun* (1.3 %) + *atrazine* (85.3%)
Steadfast Q	*nicosulfuron* (25.2%) + *rimsulfuron* (12.5%) + *isoxadifen*
Sterling Plus	*dicamba* (1.1) + *atrazine* (2.1)
Stout	*nicosulfuron* (67.5%) + *thifensulfuron* (5.0%)
SureStart	*clopyralid* (0.29) + *acetochlor* (0.38) + *flumetsulam* (0.12)
TripleFLEX	*acetochlor* (3.75) + *clopyralid* (0.38) + *flumetsulam* (0.12)
Yukon	*halosulfuron* (12.5%) + *dicamba* (55%)

WEED RESPONSE TO HERBICIDES USED IN FIELD CORN

Eric P. Prostko, Extension Agronomist—Weed Science

	SUTAN	ERADICANE	MICRO-TECH LASSO	ANTHEM MAXX ZIDUA	OUTLOOK	AATREX *ATRAZINE*	DUAL[1] CINCH	HARNESS SURPASS TOPNOTCH DEGREE WARRANT	*SIMAZINE*	PYTHON	EMPYROS (PRE)
	PPI		PRE								
PERENNIAL WEEDS											
johnsongrass (rhizome)	F	F–G	P	P	P	P	P	P	P	P	P
nutsedge, purple	G–E	G–E	P	P	P	P	P	P	P	P	P
nutsedge, yellow	G–E	G–E	F	P	F	P	F–G	F	P	P	F–G
ANNUAL GRASSES											
broadleaf signalgrass	G	G	F–G	F–G	F–G	P	F–G	G	P	P	F–G
crabgrass	E	E	E	G–E	E	G	E	E	G	P	E
crowfootgrass	E	E	E	G–E	E	G	E	E	G	P	E
fall panicum	E	E	E	G–E	E	P	E	E	G	P	E
goosegrass	E	E	E	G–E	E	G	E	E	G	P	E
johnsongrass (seedling)	E	E	P	P–F	P	P	P	P	P	P	
sandbur	E	E	F–G	G–E	F–G		F–G	F–G	G	P	F–G
Texas panicum	G–E	G–E	P–F	F	P–F	P	P–F	P	P	P	P–F
annual ryegrass				G			G		E	P	G
BROADLEAF WEEDS											
bristly starbur			P	P	P	G	P	P	G	E	
burcucumber			P	P	P	P–F	P	P	F	P	
citronmelon			P	P	P	G	P	P	F		
cocklebur			P	P	P	G–E	P	P	G	E	G–E
cowpea			P		P	E	P	P	G		
crotalaria			P		P	G–E	P	P	G		P
croton, tropic			P		P	G	P	P	G		P
Florida beggarweed			F	F	P	E	F	F	G	F–G	
Florida pusley	G–E	G–E	G–E	G	G–E	E	G–E	G–E	G	G	

Key to response symbols: E—Excellent control, weed kill 90% or above; G—Good control, weed kill 80% or above; F—Fair control, weed kill 70–79%, usually unacceptable unless supplemental chemical or cultivation practices are used; P—Poor control (<70%). If no symbol is given, weed response is unknown.

PPI = Preplant soil incorporated; **PRE** = Pre-emergence (surface applied)

1. Includes all *metolachlor* products (Cinch, Dual, Dual II, Dual Magnum, Dual II Magnum). The generic formulations of *metolachlor* (Parallel, Stalwart, Me-Too-Lachlor) have not provided the same length of residual control of certain weeds as similar rates of Dual Magnum formulations in some UGA field trials.

WEED RESPONSE TO HERBICIDES USED IN FIELD CORN

	SUTAN	ERADICANE	MICRO-TECH LASSO	ANTHEM MAXX ZIDUA	OUTLOOK	AATREX *ATRAZINE*	DUAL[1] CINCH	HARNESS SURPASS TOPNOTCH DEGREE WARRANT	*SIMAZINE*	PYTHON	EMPYROS (PRE)
	PPI		PRE								
BROADLEAF WEEDS (*continued*)											
hophornbeam copperleaf			P	G	P	G	P	P	G		P
jimsonweed			P	F	P	E	P	P	E	P	G–E
lambsquarters, common	G	G	F–G	F	F	E	F	F	E	E	G–E
morningglories			P	P–F	P	G	P	P	G	F–G	P–F
pigweed	G	G	G	G	G	E	G	G	E	E	G–E
ALS-resistant	G	G	G	G	G	E	G	G	E	P	G–E
glyphosate-resistant	G	G	G	G	G	E	G	G	E	E	G–E
atrazine-resistant	G	G		G	G	P	G	G	P	E	G–E
prickly sida	G	G	F–G	P	F	E	F	F	E	E	
purslane	G	G	G		G	E	G	G	E		F–G
ragweed, common			P	F	P	E	P	P	E	G	G–E
sesbania, hemp		P	P	P	P	F–G	P	P			P
sicklepod	F	F	P	P	P	G	P	P	G	F–G	P
smartweed	P	P	P	F	P	G–E	P	P	G	G	F–G
tropical spiderwort				G–E	F	F	G–E				G
volunteer peanuts	P	P	P	P	P	G	P	P	F		
velvetleaf			P	F		G	P	P		E	G–E
wild poinsettia										G	P
wild radish	P	P	P		P	G	P	P	F		P–F

Key to response symbols: E—Excellent control, weed kill 90% or above; G—Good control, weed kill 80% or above; F—Fair control, weed kill 70–79%, usually unacceptable unless supplemental chemical or cultivation practices are used; P—Poor control (<70%). If no symbol is given, weed response is unknown.

PPI = Preplant soil incorporated; **PRE** = Pre-emergence (surface applied)

1. Includes all *metolachlor* products (Cinch, Dual, Dual II, Dual Magnum, Dual II Magnum). The generic formulations of *metolachlor* (Parallel, Stalwart, Me-Too-Lachlor) have not provided the same length of residual control of certain weeds as similar rates of Dual Magnum formulations in some UGA field trials.

	EVIK	AATREX, *ATRAZINE*	ACCENT	BEACON	EXCEED	BASAGRAN	CALLISTO	LAUDIS	CAPRENO	STEADFAST Q	*GLYPHOSATE* + ACURON OR ACURON GT
POSTEMERGENCE / POST-DIRECTED											
PERENNIAL WEEDS											
johnsongrass (rhizome)	P	P	G–E	F–G	P–F	P	P			G–E	E
nutsedge, purple	G	P	P–F		P	P	P–F			P	F–G
nutsedge, yellow	G	P			P	G	P–F			P	F
ANNUAL GRASSES											
broadleaf signalgrass	G	P–F	G	P		P	F				E
crabgrass	E	P–F	P	P	P	P	F–G	F–G	G	F	E
crowfootgrass	E	P	G–E		P	P	P			G–E	E
fall panicum	E	P	G–E	F	P	P	P				E
goosegrass	E	P	G–E		P	P	P				E
johnsongrass (seedling)	E	P	G–E	G–E	F–G	P	P			G–E	E
sandbur	E	F	G–E		P	P	P				E
Texas panicum	G–E	P	G–E	P	P	P	P	F–G	G	G–E	E
annual ryegrasses	F–G	P–F	F			P	P			F	E
BROADLEAF WEEDS											
bristly starbur	E	E				E					G
burcucumber	F	F–G	F–G	G	G	P	P–F				E
citronmelon	G	G			F	P					G
cocklebur	F	E	P–F		G	E	G–E				G–E
cowpea	G	G				P					G
crotalaria	E	G				P					G
croton, tropic	G	G				P					G
Florida beggarweed	E	G	G	G–E		P					G–E
Florida pusley	E	G	P–F	G–E		P					F
jimsonweed	E	E	F–G		G	E	G–E				G
lambsquarters, common	E	E	F–G		G	P	G–E				G
morninglories	G	E	G–E	F	F–G	F–G	F–G				G

Key to response symbols: E—Excellent control, weed kill 90% or above; G—Good control, weed kill 80% or above; F—Fair control, weed kill 70–79%, usually unacceptable unless supplemental chemical or cultivation practices are used; P—Poor control (<70%). If no symbol is given, weed response is unknown.

WEED RESPONSE TO HERBICIDES USED IN FIELD CORN

	EVIK	AATREX, *ATRAZINE*	ACCENT	BEACON	EXCEED	BASAGRAN	CALLISTO	LAUDIS	CAPRENO	STEADFAST Q	*GLYPHOSATE* + ACURON OR ACURON GT
POSTEMERGENCE / POST-DIRECTED											
BROADLEAF WEEDS (*continued*)											
pigweed	E	E	G–E	G–E	G	P	G	G	G–E	G–E	G–E
ALS-resistant	E	E	P	P	P	P	G	G	G	P	G–E
glyphosate-resistant	E	E	G–E	G–E	G	P	G	G	G–E	G–E	G–E
atrazine-resistant	E	P	G–E	G–E	G	P	G	G	G–E	G–E	G–E
prickly sida	E	E	P		F–G	G	P				G
purslane	E	E				P					G
ragweed, common	E	E	P–F		G	F	F–G				G
sesbania, hemp	P–F	F–G	P–F	P	F–G	P					F
sicklepod	E	E	P–F	G	G	P	P	P	P		G–E
smartweed		G–E	G	G		G–E	G–E				G–E
tropical spiderwort	G–E	P				F–G	G	P			F
velvetleaf		E	F	F–G		G–E	E				G
volunteer peanuts	G–E	F–G	F	F	P	P	P				F
wild poinsettia											G–E
wild radish	G–E	F–G	G	G	G	F					G

Key to response symbols: E—Excellent control, weed kill 90% or above; G—Good control, weed kill 80% or above; F—Fair control, weed kill 70–79%, usually unacceptable unless supplemental chemical or cultivation practices are used; P—Poor control (<70%). If no symbol is given, weed response is unknown.

	REVULIN Q	SHIELDEX	IMPACT, ARMEZON	LIBERTY[1], KONG, INTERLINE	*GLYPHOSATE*[2]	*DICAMBA*	LOROX, LINEX
POSTEMERGENCE / POST-EMERGENCE DIRECTED							
PERENNIAL WEEDS							
johnsongrass (rhizome)	G–E		P	P–F	E	P	P
nutsedge, purple		P	P	P	F–G	P	F
nutsedge, yellow		P	P	P	F	P	F
ANNUAL GRASSES							
broadleaf signalgrass	G		P	G	E	P	G
crabgrass	P–F	F–G	F	F–G	E	P	G
crowfootgrass	G			G	E	P	E
fall panicum	G	P	F	G	E	P	E
goosegrass	G		F	P	E	P	E
johnsongrass (seedling)	G–E	F	P	G	E	P	E
sandbur	G–E				E	P	E
Texas panicum	G		F–G	G–E	E	P	G–E
annual ryegrass	F			F	F–G	P	
BROADLEAF WEEDS							
bristly starbur				G–E	G	E	G
burcucumber	F–G	F	F–G	G	E	F	F
citronmelon				G	G	E	E
cocklebur	G–E	F–G	G–E	E	G	E	E
cowpea				G	G	E	G
crotalaria					G	G	E
croton, tropic				G	G	G	G
Florida beggarweed	G			G–E	G–E	G	E
Florida pusley	P–F		F	P–F	F	G	G

Key to response symbols: E—Excellent control, weed kill 90% or above; G—Good control, weed kill 80% or above; F—Fair control, weed kill 70–79%, usually unacceptable unless supplemental chemical or cultivation practices are used; P—Poor control (<70%). If no symbol is given, weed response is unknown.

1. Liberty is only for use on Liberty-Link corn hybrids.
2. *Glyphosate* is only for use on Roundup Ready corn hybrids. Ratings also reflect weed control in minimum tillage applications prior to crop emergence/planting.

WEED RESPONSE TO HERBICIDES USED IN FIELD CORN

	REVULIN Q	SHIELDEX	IMPACT, ARMEZON	LIBERTY[1], KONG, INTERLINE	*GLYPHOSATE*[2]	*DICAMBA*	LOROX, LINEX
POSTEMERGENCE / POST-EMERGENCE DIRECTED							
BROADLEAF WEEDS (*continued*)							
hophornbeam copperleaf	G		G	G	G	G	
jimsonweed	G	G–E	G–E	G	G	E	E
lambsquarters, common	G	G	G–E	E	G	E	E
morninglories	G	F	F–G	G–E	F–G	E	G
pigweeds ALS-resistant *glyphosate*-resistant *atrazine*-resistant	G–E G–E G–E G–E	G–E G–E G–E G–E	G–E G–E G–E G–E	F–G F–G F–G F–G	G–E G–E P G–E	G–E G–E G–E G–E	G G G G
prickly sida	P		F–G	P–F	G	E	G
purslane				G	G	E	G
ragweed, common	G	G	F–G	G	G	E	E
sesbania, hemp				G–E	F	E	G
sicklepod			P	G	G–E	E	E
smartweed	G	F–G	G–E	G–E	G–E	E	
tropical spiderwort	G	P	P	P–F	F	P	F
velvetleaf	G–E	E	G–E	E	G	F–G	
volunteer peanuts				G–E	F	F–G	G
wild poinsettia					G–E		
wild radish				F	G	G–E	G

Key to response symbols: E—Excellent control, weed kill 90% or above; G—Good control, weed kill 80% or above; F—Fair control, weed kill 70–79%, usually unacceptable unless supplemental chemical or cultivation practices are used; P—Poor control (<70%). If no symbol is given, weed response is unknown.

1. Liberty is **only** for use on Liberty-Link corn hybrids.
2. *Glyphosate* is **only** for use on Roundup Ready corn hybrids. Ratings also reflect weed control in minimum tillage applications prior to crop emergence/planting.

	PARAQUAT	PROWL[1]	*TRIFLURALIN*[1]	STINGER	*2,4-D*	SANDEA	BUCTRIL	AIM
POSTEMERGENCE / POST-EMERGENCE DIRECTED								
PERENNIAL WEEDS								
johnsongrass (rhizomes)	P	P	P	P	P	P	P	P
nutsedge, purple	F	P	P	P	P	G	P	P
nutsedge, yellow	F	P	P	P	P–F	G	P	P
ANNUAL GRASSES								
broadleaf signalgrass	G	G	G	P	P	P	P	P
crabgrass	G	G–E	G–E	P	P	P	P	P
crowfootgrass	G	G–E	G–E	P	P	P	P	P
fall panicum	G	G–E	G–E	P	P	P	P	P
goosegrass	G	G–E	G–E	P	P	P	P	P
johnsongrass (seedling)	G	G	G	P	P	P	P	P
sandbur	G	G	G	P	P	P	P	P
Texas panicum	E	G	G	P	P	P	P	P
annual ryegrass		F	F	P		P		P
BROADLEAF WEEDS								
bristly starbur	G	*	*	F–G		G	G	P
burcucumber	G	P	P	P	P	P	F–G	P
citronmelon	F	*	*	F–G	E	P–F		
cocklebur	G	*	*	G–E	E	G	E	G
cowpea	G	*	*	G–E	E			
crotalaria	G	*	*	G–E	G	P		F
croton, tropic	G	*	*	G	G			G
Florida beggarweed	E	*	*	G–E	P	P	G	F
Florida pusley	F–G	G	G	F–G	G		E	F–G
jimson weed	G	*	*	G	E			G

Key to response symbols: E—Excellent control, weed kill 90% or above; G—Good control, weed kill 80% or above; F—Fair control, weed kill 70–79%, usually unacceptable unless supplemental chemical or cultivation practices are used; P—Poor control (<70%). If no symbol is given, weed response is unknown. Ratings are based on average to good soil and weather conditions for herbicide performance.

1. For control of grasses and selected broadleaf weeds, these herbicides must be applied prior to weed emergence.

* Must be tank mixed with *atrazine* or *glyphosate* for post-emergence control of seedling grasses and broadleaf weeds.

WEED RESPONSE TO HERBICIDES USED IN FIELD CORN

	PARAQUAT	PROWL[1]	*TRIFLURALIN*[1]	STINGER	*2,4-D*	SANDEA	BUCTRIL	AIM
POSTEMERGENCE / POST-EMERGENCE DIRECTED								
BROADLEAF WEEDS *(continued)*								
lambsquarters, common	F–G	G*	G*	P	E	P–F	G	G–E
morninglories	G	*	*	P	G	P–F	G	E**
pigweeds	G	G*	G*	P	G–E	F–G	G	G–E
ALS-resistant	G	G	G	P	G–E	P	G	G–E
glyphosate-resistant	G	G	G	P	G–E	F–G	G	G–E
atrazine-resistant	G	G	G	P	G–E	F–G	G	G–E
prickly sida	F–G	*	*		G			F
purslane	G	G*	G*		G			G
ragweed, common	G	*	*	G	E	G	G	F
sesbania, hemp	P–F				G	F–G	G	
sicklepod	G	*	*	F–G	E	P	P	P
smartweed				F	P–F	F–G		G
tropical spiderwort	G–E	P	P		G–E	P		G–E
velvetleaf		P	P		G	E	G	E
volunteer peanuts	P	P	P	F–G	P	P	P	P
wild poinsettia	F–G	P	P					
wild radish	G	P	P		G	G–E	G	

Key to response symbols: E—Excellent control, weed kill 90% or above; G—Good control, weed kill 80% or above; F—Fair control, weed kill 70–79%, usually unacceptable unless supplemental chemical or cultivation practices are used; P—Poor control (<70%). If no symbol is given, weed response is unknown. Ratings are based on average to good soil and weather conditions for herbicide performance.

1. For control of grasses and selected broadleaf weeds, these herbicides must be applied prior to weed emergence.

* Must be tank mixed with *atrazine* or *glyphosate* for post-emergence control of seedling grasses and broadleaf weeds.

** Aim will not effectively control smallflower morningglory.

WEED AND COVER CROP RESPONSE TO BURNDOWN HERBICIDES USED IN CONSERVATION TILLAGE FIELD CORN PRODUCTION SYSTEMS IN GEORGIA

Eric P. Prostko, Extension Agronomist—Weed Science

WEED	*GLYPHOSATE*	*GLYPHOSATE + 2,4-D*	*GLYPHOSATE + ATRAZINE*	*GLYPHOSATE* + VALOR[1]	*GLYPHOSATE + DICAMBA*	*GLYPHOSATE* + REVITON	*PARAQUAT*	*PARAQUAT + 2,4-D*	*PARAQUAT + ATRAZINE*	*PARAQUAT + DICAMBA*	*GLUFOSINATE*
Carolina geranium	P	F–G	G–E	G	G	F–G	G–E	G–E	G–E	G	G–E
chickweed	E	E	G–E	E	E	E	E	E	E	G–E	G–E
corn spurry	G–E	G–E	G–E		G–E	G–E	F–G				
crimson clover	P–F	F	F		F–G	G–E	G	G–E	G–E	G–E	
cutleaf evening primrose	P–F	E	G–E	F–G	G	G–E	F	E	G–E	G	G–E (mature plant)
henbit	F–G	E	G–E	E	G	G–E	G	E	G–E	G–E	F
horseweed	F–G	G–E	G–E	G–E	G–E	F	F–G	G	G–E	G	G
red sorrel	E	E	E	E	E	E	E	E	E	E	P–F
ryegrass[2]	F–G	F–G	F	G	F–G	P–F	F–G	P–F	F–G	P–F	F–G
small grains	E	E	G–E	E	E	E	F–G	F–G	G	F–G	P–F
swinecress	F–G	G	G	F–G	F–G	G–E	P–F	F–G	F–G		G–E
vetch	P	G	G–E		G–E		F	G	G–E	G	G
volunteer peanut	F	F	F	F–G	G	F	P	P–F	F	G	G–E
wild radish	F–G	G–E	G–E	E	G–E	G–E	F	G–E	G–E	G	G–E (mature plant)
corn plant-back restriction	**0 days**	**7–14 days**	**0 days**	**7–30**	**0 days**	**0 days**	**0 days**	**7–14 days**	**0 days**	**0 days**	**0 days**

Burndown rates are the following: *Glyphosate* at 0.75 lb ae/A (22 oz/A of 4.5 lb ae/gal or 32 oz/A of 3 lb ae/gal); *paraquat* at 0.75 lb ai/A (3 pt/A of *paraquat* 2SL or 2 pt/A of *paraquat* 3SL); *glufosinate* at 0.53–0.77 lb ai/A (29–43 oz/A of Liberty 2.34SL) of Liberty 2.34SL); *atrazine* at 1.0 lb ai/A (1 qt/A of *atrazine* 4L), Valor SX 51WG at 2 oz/A; and 2,4-D amine at 0.48 lb ai /A (1 pt/A of *2,4-D Amine* 3.8SL).

1. Only for use in no-till or minimum tillage fields with previous crop residue. Rotation restriction for corn in other tillage systems is 30 days (1" rainfall/irrigation is required between application and planting)
2. **PROGRAMS TO MANAGE GLYPHOSATE-RESISTANT ITALIAN RYEGRASS PRIOR TO PLANTING FIELD CORN**
   Fall (Mid-October to Mid-November)—Dual Magnum at 1.33 pt/A or double disking. Add *paraquat* 3SL at 2 pts/A (or equivalent generic) to the Dual Magnum if the ryegrass is emerged.
   Winter (Mid-January to Mid-February)—SelectMax or TapOut at 24–32 oz/A or Select/Arrow at 12–16 oz/A. Corn can be planted 30 days after application.
   Spring (March-April)—*paraquat* 3SL at 2 pts/A (or equivalent generic) + *Atrazine* 4L at 1 qt/A. An additional application of *paraquat* can be applied 10–14 days later if control is less than desirable.
   These recommendations are based on research conducted by Drs. Jason Bond and Tom Eubanks at Mississippi State University.

UGA RECOMMENDED HERBICIDE PROGRAMS FOR FIELD CORN WEED CONTROL—2024

Eric P. Prostko, Extension Agronomist—Weed Science

CORN HYBRID/ SYSTEM	PREEMERGENCE	EARLY-POSTEMERGENCE[1] (~17–30 DAP, V3–V5 STAGE, ~280–414 GDD'S[2])	LAYBY/DIRECTED (IF NEEDED)
Conventional	Atrazine[3] or Dual II Magnum or Warrant or Outlook	1) Prowl + Atrazine + Crop Oil or 2) Atrazine + **One** of the following: (Accent Q, Callisto, Capreno, Armezon/Impact/Impact Z, Laudis, Revulin Q, Shieldex, or Steadfast Q)	Evik or Paraquat
Liberty-Link	Atrazine[3] or Dual II Magnum or Warrant or Outlook	1) Liberty + Atrazine + **One** of the following: [Prowl or Dual Magnum or Warrant or Zidua or Anthem Maxx or Outlook or Acuron (48 oz/A)]	
Roundup Ready	Atrazine[3] or Dual II Magnum or Warrant or Outlook	1) *Glyphosate* + Atrazine + (Prowl or Dual Magnum or Warrant or Zidua or Anthem Maxx or Outlook) or 2) *Sinate* + *Atrazine* + (Callisto or Capreno or Armezon/Impact/Impact Z or Laudis or Revulin Q or Shieldex or Steadfast Q) or 3) *Glyphosate* + *Status:* or 4) Acuron GT or Halex GT + Atrazine or 5) *Glyphosate* + Acuron (48 oz/A)	

1. When using Counter (INFR) for insect and nematode control, the following herbicides should **NOT** be applied POST: Acuron, Acuron GT, Accent Q, Callisto, Capreno, Halex GT, Revulin Q, and Steadfast Q.
2. GDD's = growing degree-days from planting (50°/86° F)
3. A maximum of 2.0 to 2.5 lb ai/A of *atrazine* can be applied in a single year depending upon application methods.

POST-HARVEST (CORN) MANAGEMENT OF PALMER AMARANTH

Eric P. Prostko, Extension Agronomist—Weed Science

After corn harvest, Palmer amaranth plants that emerge up until 35 days before first frost will have the potential to produce viable seed. Consequently, these post-harvest populations should be managed up until this time using 1 or more of the following strategies:

A) For plants larger than 6" in height:

- Mowing
- Tillage

B) For plants less than 6" in height:

- Tillage or
- *Paraquat* 2SL (various formulations) at 48 oz/A or *paraquat* 3SL (various formulations) at 32 oz/A + *2,4-D amine* 3.8SC at 16–24 oz/A + COC (1.0% v/v). If cotton is nearby and drift is a concern, consider using *dicamba* @ 0.25 lb ae/A instead of *2,4-D*. Delay planting of small grains for at least 24 days for each 16 oz/A of *2,4-D* applied or 15 days for each 0.25 lbs ae/A of *dicamba* applied. When using *dicamba*, refer to latest product label for specific application requirements (nozzle type, boom height, tractor speed, wind speed, etc.).
- If residual control is desired and a small grain will not be planted in the fall, Dual Magnum/Stalwart, etc. at 16 oz/A can be included with the burndown treatment. Tricor 4F at 8 oz/A or Tricor 75 DF at 5.33 oz/A (*metribuzin*) can also be used for fall residual control in fields that will be planted to corn or soybeans the following spring.
- In dairy situations (i.e. no rotations with peanuts, soybeans, and cotton: and no overuse of PPO herbicides), Valor 51WG or Valor EZ 4SC (2 oz/A) can be used for the residual control of Palmer amaranth after field corn harvest. Wheat can be planted 30 days after application (need 1" rainfall/irrigation after application), cereal rye and barley can be planted 3 months after application, and ryegrass can be planted 4 months after application (with tillage). Valor can be tank-mixed with *paraquat*.

It is important to remember that viable Palmer amaranth seed can be produced within 2 weeks after pollen shed. Thus, control strategies need to be implemented before this time to be effective in reducing weed-seed rain back into a field.

SUMMARY OF FIELD CORN HERBICIDE HARVEST RESTRICTIONS FOR SILAGE/FORAGE

Eric P. Prostko, Extension Agronomist—Weed Science

TRADE NAME	COMMON NAME(S)	SILAGE/FORAGE RESTRICTION (days)
Aatrex	*atrazine*	60
Accent Q[1]	*nicosulfuron*	30
Acuron[1]	*bicyclopyrone* + *mesotrione* + *S-metolachlor* + *atrazine*	60
Acuron Flexi[1]	*bicyclopyrone* + *mesotrione* + *S-metolachlor*	45
Acuron GT[1]	*glyphosate* + *S-metolachlor* + *mesotrione* + *bicyclopyrone*	45
Aim	*carfentrazone*	3
Anthem Maxx	*pyroxasulfone* + *fluthiacet*	30
Armezon	*topramezone*	45
Dual Magnum	*S-metolachlor*	30
Callisto[1]	*mesotrione*	45
Capreno[1]	*tembotrione* + *thiencarbazone*	45
Clarity	*dicamba*	After milk stage (R3)
DiFlexx	*dicamba*	45
Empyros[1]	*tolpyralate* + *S-metolachlor*	45
Empyros Triad[1]	tolpyralate + *S-metolachlor* + *atrazine*	60
Empyros Triad Flex[1]	tolpyralate + *S-metolachlor* + *atrazine*	60
Harness Max[1]	*mesotrione* + *acetochlor*	60
Halex GT[1]	*glyphosate* + *mesotrione* + *S-metolachlor*	45
Helmet Maxx[1]	*metolachlor* + *atrazine* + *mesotrione*	60
Impact	*topramezone*	45
Impact Core	*topramezone* + *acetochlor*	45
Impact Z	*topramezone* + *atrazine*	45
Katagon[1]	*tolpyralate* + *nicosulfuron*	45
Kyro	*acetochlor* + *topramezone* + *clopyralid*	45 (ears and forage) 60 (stover)
Laudis	*tembotrione*	45
Lexar EZ[1]	*atrazine* + *S-metolachlor* + *mesotrione*	60
Liberty	*glufosinate*	60

1. Cannot be used if Counter (*terbufos*) was applied in-furrow for nematodes and other insect pests.

SUMMARY OF FIELD CORN HERBICIDE HARVEST RESTRICTIONS FOR SILAGE/FORAGE

TRADE NAME	COMMON NAME(S)	SILAGE/FORAGE RESTRICTION (days)
Maverick[1]	*mesotrione + pyroxasulfone + clopyralid*	30 (ears and forage) 60 (stover)
Outlook	*dimethenamid-P*	40
Prowl H2O	*pendimethalin*	21
Resicore REV	*mesotrione + acetochlor + clopyralid*	45
Restraint	*tolpyralate + acetochlor*	21
Revulin Q[1]	*mesotrione + nicosulfuron*	45
Roundup PowerMax3	*glyphosate*	7
Sandea/Permit[1]	*halosulfuron*	30
Shieldex	*tolpyralate*	21
Sinate	*glufosinate + topramezone*	60
Status	*dicamba + diflufenzopyr*	32
Steadfast Q[1]	*rimsulfuron + nicosulfuron*	30
Warrant	*acetochlor*	40
Zidua	*pyroxasulfone*	0
Weedar 64	*2,4-D amine*	7

1. Cannot be used if Counter (*terbufos*) was applied in-furrow for nematodes and other insect pests.