

# CORN WEED MANAGEMENT

**Table 1. Weed response ratings for selected corn herbicides applied preemergence<sup>1</sup>**

	barnyardgrass	broadleaf signalgrass	browntop millet	crabgrass	seedling johnsongrass	rhizome johnsongrass	purple nutsedge	yellow nutsedge	hemp sesbania	hophornbeam copperleaf	annual morningglory	pigweed species	prickly sida	sicklepod	smellmelon
Anthem Flexx or Maxx	9	9	9	9	9	1	-	-	7	8	7	8	7	6	8
Atrazine	7	6	6	6	5	1	0	5	8	9	8	8	8	8	5
Atrazine + metolachlor/S-metolachlor	9	8	8	9	8	1	1	9	8	9	8	8	8	8	9
Corvus	8	8	8	8	9	8	-	-	8	7	8	7	8	8	8
Lexar EZ	9	9	9	9	7	1	1	9	8	9	8	9	8	8	9
Resicore	9	9	8	9	8	0	4	4	9	9	9	9	9	7	9
Sharpen	1	1	1	1	1	0	-	-	6	7	6	9	7	5	7
SureStart II	8	7	8	9	8	1	-	-	-	9	9	8	9	8	8
Verdict	8	8	8	9	7	1	1	7	8	8	8	8	8	8	8
Zidua or Zidua SC	9	9	9	9	9	1	-	-	7	8	7	8	7	6	8

Rating scale: 0-3 = none to slight; 4-6 = fair; 7-8 = good; 9-10 = excellent.

<sup>1</sup> Control expected under optimum conditions. LSU AgCenter does not guarantee these estimates since many factors influence herbicide performance. Resistance to recommended use rates of some herbicides has been identified in certain weed species in Louisiana.

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Table 2. Weed response ratings for selected corn herbicides applied postemergence<sup>1</sup>

	barnyardgrass	broadleaf signalgrass	browntop millet	crabgrass	seedling johnsongrass	rhizome johnsongrass	purple nutsedge	yellow nutsedge	annual morningglory	hemp sesbania	hophornbeam copperleaf	pigweed species	prickly sida	sicklepod	smellmelon
2,4-D	1	1	1	1	4	0	3	2	9	8	8	8	8	8	8
Acuron GT															
Armezon or Impact	5	5	5	5	1	3	-	-	8	8	8	9	8	8	8
Atrazine + crop oil	7	5	6	6	3	3	1	3	8	7	9	8	8	7	9
Capreno	7	7	7	7	9	8	-	-	9	9	8	8	8	9	9
Dicamba	0	0	0	0	0	0	0	3	9	9	5	8	5	6	7
Glufosinate	8	8	8	8	7	7	8	9	9	9	9	9	9	9	9
Glyphosate	9	9	9	9	9	9	7	7	8	7	9	9	8	8	8
Halex GT	9	9	9	9	9	9	8	8	8	9	9	9	9	9	9
Lexar EZ	9	9	9	9	7	1	1	9	8	8	9	9	8	8	9
Mesotrione	7	7	7	9	0	0	-	-	9	7	9	9	9	5	9
Nicosulfuron	8	8	8	5	9	8	4	5	6	2	1	5	2	5	1
Realm Q	9	7	7	-	8	7	-	-	9	8	9	8	9	7	8
Resicore	7	-	7	7	6	0	4	4	9	9	9	9	9	7	9
Shieldex	6	-	6	-	0	0	-	-	9	7	9	8	8	5	8
Status	3	3	3	0	3	0	0	0	9	9	9	9	9	9	9

Rating scale: 0-3 = none to slight; 4-6 = fair; 7-8 = good; 9-10 = excellent.

<sup>1</sup> Control expected under optimum conditions. LSU AgCenter does not guarantee these estimates since many factors influence herbicide performance. Resistance to recommended use rates of some herbicides has been identified in certain weed species in Louisiana.

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**Table 3. Removal of Partial Corn Stands for Replanting**

Active Ingredient and Rate	Formulated Product and Rate	Weeds Controlled	Remarks and Precautions
clethodim - 0.045 lb/A	Various formulations – see label.  Add 1% v/v COC + 2.5 to 4 lb/A AMS	All corn hybrids	<b>Do not replant within 6 days after application.</b> Controls failed corn stands up to 12 inches tall. Avoid off-site movement to emerged, non-target corn.
paraquat - 0.63-0.75 lb/A + atrazine - 0.5 lb/A	Paraquat (2 lb/gal formulation) - 40-48 oz/A; Paraquat (3 lb/gal formulation) - 26.9-32 oz/A + atrazine 4L - 16 oz/A or atrazine 90 DF - 0.55 lb/A  Add 0.25% v/v NIS or 1% COC; see label.	All corn hybrids	<b>Apply with corn is small enough to achieve adequate coverage. Corn may be replanted immediately.</b> Avoid off-site movement to emerged, non-target corn.
paraquat - 0.63-0.75 lb/A + diuron - 0.5 lb/A	Paraquat (2 lb/gal formulation) - 40-48 oz/A; Paraquat (3 lb/gal formulation) - 26.9-32 oz/A + diuron 4L - 16 oz/A or diuron 80 DF - 0.63 lb/A  Add 0.25% v/v NIS or 1% COC; see label	All corn hybrids	<b>Apply with corn is small enough to achieve adequate coverage. Corn may be replanted immediately.</b> Avoid off-site movement to emerged, non-target corn

**Table 4. Preemergence herbicides**

Active Ingredient and Rate	Formulated Product and Rate	Weeds Controlled	Remarks and Precautions
acetochlor – 0.8 to 2.4 lb/A	acetochlor 7 lb/gal formulation – 1 to 2.75 pt/A	Annual grasses and small seeded broadleaf weeds	Preplant up to 30 days before planting, preplant incorporated, or preemergence. Mix with nonselective herbicide to control emerged vegetation.
acetochlor - 1.1 to 2 lb/A + atrazine – 1 to 1.5 lb/A	Various formulations  See product label for specific rates.	Annual grasses and broadleaf weeds	Apply preplant or preemergence before weeds emerge. See comments for acetochlor and atrazine. Adjust rates per label if OM > 3%. Mix with nonselective herbicide to control emerged vegetation.
acetochlor + flumetsulam + clopyralid – 0.8 to 1.33 lb/A	SureStart II 4.25 EC – 1.5 to 2.5 pt/A	Annual grasses and broadleaf weeds	Apply preplant or preemergence before weeds emerge. Applications may be made from 30 days prior to planting until 11-inch corn.
acetochlor + mesotrione + clopyralid – 0.93 to 1.13 lb/A	Resicore 3.29 SC – 2.25 to 2.75 pt/A	Annual grasses and broadleaf weeds	Apply preplant or preemergence before weeds emerge. Half of the total rate can be applied preemergence and half applied postemergence.
atrazine - 2.0 lb/A (1.6 lb/A on highly erodible soils)	90 DF formulations - 2.2 lb/A 4 lb/gal formulations - 2 qt/A	Many small seeded annual broadleaf weeds and some annual grasses	Apply preemergence before weeds emerge. Rainfall required for activation. Do not exceed 2.5 pounds of active ingredient per year. See label for addition restrictions.
atrazine - 1.0 to 2 lb/A + S-metolachlor - 0.75 to 1.25 lb/A	Various formulations  See product label for specific rates.	Most small-seeded annual grasses and broadleaf weeds	See comments for atrazine and S-metolachlor. Apply to the bare soils surface after planting but before weeds emerge. See product labels for other tank-mix instructions.
dimethenamid-P - 0.56 to 0.84 lb/A	Outlook 6L – 12 to 18 oz/A  See product label for specific rates.	Most annual grasses, pigweeds, and some sedges	Apply preemergence before weeds emerge. May also be used before planting; consult label. Higher rates may be needed on soil with 3% or higher OM; consult label. Mix with atrazine for improved broadleaf weed control; consult label. Mix with nonselective herbicide to control emerged vegetation.
dimethenamid-P + saflufenacil – 0.44 to 0.8 lb/A	Verdict – 10 to 18 oz/A  Rate depends upon soil type. See label.	Small seeded grasses and broadleaf weeds	Apply preemergence before weeds emerge. Application following corn emergence will cause severe corn injury. Do not use on fields treated with organophosphate or carbamate insecticides. Tank-mixing Verdict with atrazine at 1.5 lb/A will increase spectrum of weeds controlled. Mix with nonselective herbicide to control emerged vegetation.

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Active Ingredient and Rate	Formulated Product and Rate	Weeds Controlled	Remarks and Precautions
pyroxasulfone - 0.08 to 0.21 lb/A	Zidua WG - 1.5 to 4 oz/A  Zidua SC - 2.5 to 6.5 oz/A  Rate depends upon soil type. See label.	Most annual grasses and broadleaf weeds	Apply preemergence before weeds emerge. May also be used before planting; consult label. Only crops listed on Zidua label can be planted the following year. Tank-mixing Zidua with atrazine at 1.5 lb/A will increase spectrum of weeds controlled. Mix with nonselective herbicide to control emerged vegetation.
pyroxasulfone + carfentrazone-ethyl – 0.109 to 0.227 lb/A	Anthem Flex - 3.5 to 7.28 oz/A  Rate depends upon soil type. See label.	Many small-seeded annual broadleaf weeds and most annual grasses	Corn must be planted 1.5 inches or deeper. Apply to the bare soil surface after planting but prior to spike stage corn. May be used after corn emergence; consult label. Mix with nonselective herbicide to control emerged vegetation.
pyroxasulfone + fluthiacet-methyl – 0.12 to 0.19 lb/A	Anthem Maxx - 3 to 6.5 oz/A  Rate depends upon soil type. See label.	Many small-seeded broadleaf weeds and most annual grasses	Corn must be planted 1.5 inches or deeper. Apply to the bare soil surface after planting but before weeds emerge. May also be used after corn emergence; consult label. Mix with nonselective herbicide to control emerged vegetation.
S-metolachlor or metolachlor + safener - 0.8 to 1.6 lb/A	Various Formulations  See product label for specific rates.	Most annual grasses and broadleaf weeds	Apply after planting before weeds emerge. Poor control of most large seeded broadleaf weeds. For improved broadleaf weed control mix with atrazine; consult label. Mix with nonselective herbicide to control emerged vegetation.
thiencarbazone-methyl + isoxaflutole - 0.068 to 0.115 lb/A	Corvus - 3.33 to 5.6 oz/A  Rate depends upon soil type. See label.	Seedling and rhizome johnsongrass. Most annual grasses and broadleaf weeds.	Do not apply if water table is less than 25 feet below ground surface. Consult label for crop rotation restrictions. Organic matter and soil pH influence use rate; consult label. Do not use on fields treated with organophosphate or carbamate insecticides. Tank-mixing Corvus with atrazine at 1.5 lb/A will increase spectrum of weeds controlled; consult label.

**Table 5. Postemergence herbicides**

Active Ingredient and Rate	Formulated Product and Rate	Weeds Controlled	Remarks and Precautions
2,4-D amine - 0.25 – 0.5 lb/A	2,4-D Amine - 0.5 to 1.0 pt/A	Broadleaf weeds	Apply before corn is 15 inches tall or after grain is dented. Do not treat at tasseling and silking stage. If necessary, to spray after corn is 15 inches tall but before tasseling, do not spray in whorl. Under certain conditions injury is possible; consult label.
acetochlor + mesotrione + clopyralid – 0.93 to 1.13 lb/A	Resicore 3.29 SC – 2.25 to 2.75 pt/A  Add 0.25% v/v NIS or 1% v/v COC	Small weeds less than 3 inches tall	Mix with nonselective herbicide and/or atrazine to improve weed control spectrum. Do not apply carbamate or organophosphate insecticide 7 days of before or 7 days after application.
atrazine - 2.0 lb/A	90 DF formulations - 2.2 lb/A 4L formulations - 2 qt/A  Add 1% v/v COC	Most broadleaf weeds and some grasses; grasses must be very small to obtain control.	Apply before weeds exceed 1.5 inches or corn exceeds 12 inches in height. Do not exceed 2.5 lb ai/A atrazine per season. Do not graze or feed forage from treated areas to livestock for 21 days after treatment. Mix with nonselective herbicide to improve weed control spectrum.
atrazine - 1 to 2 lb/A + S-metolachlor – 0.8 to 1.6 lb/A	Various formulations  See product label for specific rates.	Annual grasses and broadleaf weeds	Mix with nonselective herbicide to improve weed control spectrum.
atrazine + S-metolachlor + mesotrione - 2.08 to 2.78 lb/A	Lexar EZ – 2.25 to 3 qt/A  Add 0.25% v/v NIS.	Most small-seeded grasses and broadleaf weeds	See comments in preemergence section. Apply before weeds emerge and corn is 12 inches tall. Do not apply carbamate or organophosphate insecticide within 7 days of application. Do not apply with liquid fertilizer. Mix with nonselective herbicide to improve weed control spectrum. See the Lexar EZ label for other tank-mixtures.

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Active Ingredient and Rate	Formulated Product and Rate	Weeds Controlled	Remarks and Precautions
dicamba - 0.25 to 0.5 lb/A	Various formulations  See product label for specific rates.	Most broadleaf weeds	Mix with nonselective herbicide to improve weed control spectrum. Do not make more than one application per season. Apply before corn is 36 inches tall or until 15 days before tassels emerge. Application to corn greater than 8 inches tall can cause stalks to lean and/or become brittle potentially leading to breaking if exposed to high winds.
dicamba - 0.138-0.276 lb/A + diflufenzopyr - 0.05-0.1 lb/A	Status - 5-10 oz/A  Add 0.25% v/v NIS or 1% v/v COC or MSO	Most broadleaf weeds	Apply after corn is 4 inches tall (V2) up to 36 inches (V8). Do not apply within 15 days of tassel emergence. Do not mix with 2,4-D or more dicamba. Do not mix with EC formulation herbicides. Do not apply to stressed or injured corn. Mix with atrazine and/or nonselective herbicide to improve weed control spectrum.
glufosinate - 0.53 to 0.79 lb/A	Various formulations with 2.34 lb/gal glufosinate - 29 to 43 oz/A	Many annual grasses and broadleaf weeds. Adhere to weed size restrictions on label or unsatisfactory control will result.	<b>Glufosinate-tolerant Corn Only.</b> Apply from emergence through V5. Apply before weeds are 2-3 inches tall with atrazine at 1.0 lb/A and/or residual grass herbicides. Refer to label for approved tank-mixes. Do not apply more than 87 oz/year.
glyphosate – 0.75 to 1 lb/A	Various formulations  See product label for specific rates and requirements.	Most annual grasses and broadleaf weeds	<b>Glyphosate-tolerant Corn Only.</b> Consult product labels for glyphosate products cleared on Roundup Ready corn. No more than 3.7 lb acid equivalent/A for all in-crop applications from emergence and to V8 growth stage or 48 inches.
glyphosate + S-metolachlor + mesotrione – 1.98 to 2.22 lb/A	Halex GT <sup>3</sup> - 3.6 to 4.0 pt/A  Add 0.25% v/v NIS and 8.5-17% w/v AMS	Most annual grass and broadleaf weeds; good residual control is tank-mixed with atrazine.	<b>Glyphosate-tolerant Corn Only.</b> Apply from emergence 30-inch-tall corn or V8 growth stage. Do not use Halex GT if another HPPD inhibitor such as Callisto, Impact or Laudis has or will be used. Do not apply carbamate or organophosphate insecticide within 7 days of application. Mix with atrazine to improve the spectrum of weeds controlled.
glyphosate + S-metolachlor + mesotrione + bicyclopyrone – 2.02 lb/A	Acuron GT – 3.75 pt/A  Add 0.25% v/v NIS and 8.5-17% w/v AMS	Annual grasses and broadleaf weeds	<b>Glyphosate-tolerant Corn Only.</b> Do not make more than one application per year. Do not mix with emulsifiable concentrate (EC) products.
halosulfuron-methyl - 0.032-0.063 lb/A	Various formulations with 75% halosulfuron - 0.67-1.33 oz/A  Add 0.25% v/v NIS or 1% v/v COC	Purple and yellow nutsedge, common cocklebur	Apply to spiking corn thru layby. Do not exceed two applications with a total of 2 2/3 oz/A/season Permit. Mix with atrazine and/or nonselective herbicide to improve weed control spectrum.
mesotrione - 0.094 lb/A	Callisto - 3 oz/A  Add 1% v/v COC	Many broadleaf weeds.	Apply before weeds are 4 inches tall. Has excellent residual weed control, so early applications are encouraged. Do not use if Counter was used at planting; consult label for other use restrictions. Do not tank-mix with MSO blend adjuvants. Mix with atrazine and/or nonselective herbicide to improve weed control spectrum.
nicosulfuron - 0.03 lb/A	Various formulations  See product label for specific rates and requirements.  Add 0.25% v/v NIS or 1% COC	Johnsongrass and annual grasses	Apply to corn up to 20 inches tall. Do not broadcast after the 6-leaf stage. Can be applied with drop nozzles up to 36 inches tall (V10) corn; consult label. Do not apply to corn treated with Counter 15 G, Counter20CR, Dyfonate, Lorsban, and Thimet; consult label. Tank-mixing Accent Q with atrazine and/or nonselective herbicide to improve weed control spectrum.

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Active Ingredient and Rate	Formulated Product and Rate	Weeds Controlled	Remarks and Precautions
nicosulfuron + rimsulfuron - 0.036 lb/A	Steadfast Q - 1.5 oz/A  Add 0.25% v/v NIS or 1% COC	Most annual grasses, johnsongrass and some broadleaf weeds.	Apply to corn up to 20 inches tall. Do not apply after the V6 growth stage. Do not apply to corn treated with Counter 15 G, Counter20CR, Dyfonate, Lorsban, and Thimet; consult label. Mix with atrazine and/or nonselective herbicide to improve weed control spectrum.
paraquat @ 0.26-0.63 lb/A	paraquat (2 lb/gal formulation) @ 16-40 oz/A; Paraquat (3 lb/gal formulation) @ 11-27 oz/A  Add 0.25% v/v NIS	Annual grasses and weeds less than 4 inches tall	<b>Application only with hooded sprayer after corn is 6 inches tall.</b> Avoid crop contact with spray solution. Mix with residual grass and broadleaf herbicide to improve weed control spectrum.
pyroxasulfone + fluthiacet-methyl – 0.101 to 0.202 lb/A	Anthem Maxx – 3 to 6.5 oz/A  Add 0.25% v/v NIS or 1% COC  Soil texture influences rate; see label.	Most annual grasses and small seeded broadleaf weeds	Apply before corn exceeds V4 growth stage. Mix with nonselective herbicide and/or with atrazine to improve weed control spectrum.
rimsulfuron + thifensulfuron-methyl – 0.018 lb/A	Resolve Q - 1.25 oz/A  Add 0.25% v/v NIS or 1% COC	Most annual grasses and some broadleaf weeds.	Apply to corn up to 20 inches tall or that has no more than 7 collars. Do not apply to corn treated with Counter 15 G, Counter20CR, Dyfonate, Lorsban, and Thimet; consult label. Mix with atrazine and/or nonselective herbicide to improve weed control spectrum.
rimsulfuron + mesotrione - 0.098 lb/A	Realm Q - 4 oz/A  Add 0.25% v/v NIS or 1% v/v COC	Most annual grasses and broadleaf weeds	Do not apply to corn taller than 20 inches or plants with 7 or more collars. Do not tank-mix with organophosphate insecticide. Apply organophosphate insecticide either 7 days before or 7 days after application. Mix with atrazine and/or nonselective herbicide to improve weed control spectrum.
tembotrione - 0.08 lb/A	Laudis - 3 oz/A  Add 1% v/v MSO and 1.5 lb/A AMS	Many broadleaf weeds. Laudis alone will not control most morningglories.	Apply up to V8 growth stage. Consult label for other use restrictions. Mix with atrazine and/or nonselective herbicide to improve weed control spectrum.
thiencarbazone-methyl + tembotrione - 0.081 lb/A	Capreno - 3 oz/A  Add 1% v/v COC and 1.5 lb/A AMS	Seedling and rhizome johnsongrass. Most annual grasses and broadleaf weeds.	Apply before corn exceeds 12 inches in height. Corn injury may occur if rainfall does not occur within 3 weeks after application. Do not use on fields treated with Counter; consult label. Mix with atrazine and/or nonselective herbicide to improve weed control spectrum.
tolpyralate – 0.026 to 0.035 lb/A	ShieldEX – 1 to 1.35 oz/A  Add 1% v/v MSO or COC	Many broadleaf weeds	Apply up to V6 growth stage or 20-inch corn. Mix with atrazine and/or nonselective herbicide to improve weed control spectrum.
topramezone - 0.016 to 0.044 lb/A	Armezon or Impact - 0.75 to 2 oz/A  Apply with 1% v/v MSO and 1.5 lb/A AMS	Annual grasses and broadleaf weeds	Apply to corn up V8 growth stage. Mix with atrazine and/or nonselective herbicide to improve weed control spectrum.
topramezone + glufosinate – 0.42 to 0.56 lb/A	Sinate – 21 to 28 oz/A  Add 1% v/v methylated seed oil and 3 lb/A of AMS	Annual grasses and broadleaf weeds	<b>Glufosinate-tolerant Corn Only.</b> Mix with atrazine to improve weed control spectrum. Apply from corn emergence until V7 growth stage.
topramezone + atrazine - 1.16 to 1.55 lb/A	Impact Z - 8-10.7 oz/A  Add 1 to 1.5% v/v MSO	Annual grass and broadleaf weeds; higher rate required for annual grass control	Do not apply if corn greater than 12-inches tall. Mix with nonselective herbicide to improve weed control spectrum.

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**Table 6. Preharvest or Harvest Aid**

Active Ingredient and Rate	Formulated Product and Rate	Weeds Controlled	Remarks and Precautions
2,4-D amine – 0.45 to 0.95 lb/A	Various formulations.  See product label for specific rates and requirements.	Broadleaf weeds	Apply after corn is in dent or hard dough stage. Do not harvest before 5 to 7 days after application.
carfentrazone @ 0.016-0.031 lb/A	Aim @ 1-2 oz/A  Add 1% v/v COC	Better on vines than pigweed, sicklepod, etc.	Apply after corn grain is physiologically mature. Use a minimum volume of 10 gallons by ground and 5 gallons by air. Do not apply harvest before 3 days after application.
paraquat @ 0.3-0.5 lb/A	Paraquat (2 lb/gal formulation) @ 1.2-2 pt/A; Paraquat (3 lb/gal formulation) @ 0.8-1.3 pt/A  Add 0.25% v/v NIS	Grasses and broadleaves	Apply after black layer has formed. Use a minimum of 20 gallons by ground or 5 gallons by air. Apply at least 7 days prior to harvest.
sodium chlorate @ 6 lb/A	Various formulations  See product label for specific rates and requirements.	Desiccation of green vegetation	Apply to corn field where grasses make harvest difficult. Apply at least 14 days before anticipated harvest date on clear days when temperatures are expected to exceed 70°F. <b>DO NOT</b> graze treated fields or feed fodder, forage or residual seeds within 14 days of application.