

Grain Sorghum

Table 1. Weed response ratings for selected grain sorghum herbicides applied preemergence.

Table Legend

Rating	Score
None to Slight	0-3
Fair	4-6
Good	7-8
Excellent	9-10

	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
atrazine (numerous formulations)	7	7	6	7	5	1	5	0	8	8	8	8	8	9	5
atrazine + metolachlor/S-metolachlor + safener	9	8	9	9	8	1	9	1	8	8	8	8	8	9	9
Halex GT + atrazine	9	9	9	9	7	1	-	-	9	8	9	8	8	9	9
Lexar EZ	9	9	9	9	7	1	9	1	9	8	8	8	8	9	9
metolachlor/S-metolachlor + safener (numerous formulations)	8	8	9	9	7	1	7	1	9	2	2	2	2	2	1
Outlook	8	8	9	9	7	1	7	1	8	2	2	2	2	2	1
Sharpen	1	1	1	1	1	1	-	-	9	7	6	6	5	7	7
Verdict	8	8	9	9	7	1	7	1	8	8	8	8	8	8	8

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.

Table 2. Weed response ratings for selected corn herbicides applied postemergence.

Table Legend

Rating	Score
None to Slight	0-3
Fair	4-6
Good	7-8
Excellent	9-10

	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
2,4-D	1	1		1	0	0	3	2	8	8	8	9	8	8	8
atrazine	7	5	6	7	3	3	3	1	8	8	7	8	7	9	9
dicamba	0	0	0	0	0	0	0	3	8	9	9	9	7	8	8
Facet + atrazine	8	8	7	7	4	0	3	1	8	8	9	9	7	8	7
Huskie + atrazine	6	6	6	-	3	3	-	-	9	9	8	9	8	8	7
Peak	0	0	0	0	0	0	0	0	7	9	8	8	8	-	-
Permit	0	3	3	-	3	3	9	7	6	7	4	5	6	-	-
Yukon	0	3	3	-	3	3	9	7	9	8	9	9	8	6	8
atrazine (layby application)	4	4	4	4	4	1	2	0	8	0	7	8	6	9	9
diuron (layby application)	6	6	6	6	6	1	2	1	8	7	6	7	7	9	9

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.

Table 3. Preplant and preemergence herbicides.

Active Ingredient and Rate	Formulated Product and Rate	Weeds Controlled	Remarks and Precautions
atrazine - 2.0 lb/A	4L formulations - 2 qt/A; 90 DF formulations - 2.2 lb/A	Most annual small-seeded broadleaf weeds and some grasses.	Apply after planting before weeds and crop emerge. Mix with nonselective herbicide to control emerged vegetation. Do not apply to soils with less than 1% organic matter or to soils of lighter texture than silt loams. Only sorghum or corn should be planted within one year on soil treated with atrazine. Do not exceed 2.0 lb ai/A/applications or 2.5 lb ai/A/year. Follow the label concerning maximum atrazine rates.
dimethenamid-P - 0.56-0.98 lb/A	Outlook 6L - 12-21 oz/A; See product label for specific rates.	Yellow nutsedge, annual grasses, pigweed.	Use with Concep-treated grain sorghum seed only. Mix with nonselective herbicide to control emerged vegetation. Do not use on forage sorghum. See label for tank-mix applications and for restrictions.
S-metolachlor - 1.0-1.9 lb/A	Various formulations; See product label for specific rates.	Most annual grasses and some broadleaf weeds.	Use with Concep-treated grain sorghum seed only. Apply after planting before weeds and crop emerge. Mix with nonselective herbicide to control emerged vegetation. Do not apply to light soils or any soils with less than 1% organic matter.
S-metolachlor - 0.75-1.25 lb/A + atrazine - 1.0-1.63 lb/A	Various formulations; See product label for specific rates.	Most small-seeded annual grasses and broadleaf weeds.	Use with Concep-treated grain sorghum seed only. Apply after planting before weeds and crop emerge. Mix with nonselective herbicide to control emerged vegetation. See comments for atrazine and s-metolachlor. Use Bicep Lite if another atrazine application will be needed at layby. Do not use on coarse textured soils. Injury can occur if applied when soils are cool and wet during early growth of grain sorghum.
S-metolachlor + atrazine + mesotrione - 2.78 lb/A	Lexar EZ - 3 qt/A	Most small-seeded grasses and broadleaf weeds.	Use with Concep-treated grain sorghum seed only. Can be applied preplant (up to 21 days before planting) to preemergence. Mix with nonselective herbicide to control emerged vegetation. Do not apply to sand, sandy loam or loamy sand soils. Do not apply to forage sorghum, sweet sorghum, sudangrass or sorghum-sudangrass, or dual-purpose sorghum. Postemergence application will cause severe grain sorghum injury. Injury can occur if applied when soils are cool and wet during early growth of grain sorghum.

Active Ingredient and Rate	Formulated Product and Rate	Weeds Controlled	Remarks and Precautions
S-metolachlor + glyphosate + mesotrione – 2.195 lb/A	Halex GT - 4 pt/A	Annual grasses and broadleaf weeds.	Use with Concep-treated grain sorghum seed only. Can be applied preplant (up to 21 days before planting) to preemergence. Do not apply to sand, sandy loam or loamy sand soils. Postemergence application will cause severe grain sorghum injury. Injury can occur if applied when soils are cool and wet during early growth of grain sorghum. Tank-mixing atrazine at 1 lb/A will broaden weed spectrum.
saflufenacil + dimethenamid-P - 0.17-0.52 lb/A	Verdict - 4-12 oz/A; See product label for specific rates.	Small-seeded grasses and broadleaf weeds.	Use with Concep-treated grain sorghum seed only. Can be applied preplant to preemergence. Mix with nonselective herbicide to control emerged vegetation. Rates depend upon soil texture. Postemergence application to grain sorghum will cause severe injury. Injury can occur if applied when soils are cool and wet during early growth of grain sorghum.

Table 4. Postemergence herbicides.

Active Ingredient and Rate	Formulated Product and Rate	Weeds Controlled	Remarks and Precautions
2,4-D amine - 0.5 lb/A	2,4-D amine - 1.0 pt/A	Small broadleaf weeds.	Apply after sorghum is 4-6 inches tall until flowering. Use directed application taken care to keep 2,4-D out of whorl once sorghum is 10-12 inches tall. Do not use when sorghum is flowering.
atrazine - 1.0-2.0 lb//A	4L formulations – 1-2 qt/A; 90 DF formulations - 1.11-2.2 lb/A; Add 1% v/v COC.	Most effective on broadleaf weeds.	Apply before weeds are 1.5 inches tall and after sorghum is 4-6 inches tall. Weeds larger than 1.5 inches tall may not be killed. Do not apply to sandy loam or lighter soil textures. Preferred application as directed spray but may be applied ovetop where sorghum is not under stress. Sorghum should not be grazed within 21 days. Do not exceed 2.5 lb ai/A/season. Follow label restrictions on maximum atrazine rates.
bromoxynil + pyrasulfotole – 0.206-0.258 lb/A	Huskie - 12.8-16 oz/A; Add 0.25% v/v NIS .	Broadleaf weeds.	Apply from three-leaf to 30-inch grain sorghum or until flag leaf emerges. Use high rate for morningglory and pigweed control. Weeds must be small for acceptable results. Expect some temporary injury following application. Atrazine at 0.5-1 lb/A should be tank-mixed to broaden the weed spectrum.
dicamba - 0.25 lb/A	Various formulations; See product label for specific rates.	Most broadleaf weeds; see label.	Apply at spike to 15-inch tall sorghum. Optimal timing is three- to five-leaf sorghum, when weeds are less than 3 inches tall. Effective for controlling small broadleaf weeds like morningglory, smartweed, etc. Mixing with atrazine adds to residual control (up to 12 inches tall sorghum). Use drop nozzles if sorghum is taller than 8 inches.
halosulfuron - 0.031-0.047 lb/A	Permit - 0.67-1.0 oz/A; Add 1% v/v COC or 0.25% v/v NIS.	Selected broadleaves and sedges.	Apply to sorghum 2-leaf to layby (before grain head emergence). Use only a single application with the total rate not to exceed 1.0 oz/A per season.

Active Ingredient and Rate	Formulated Product and Rate	Weeds Controlled	Remarks and Precautions
halosulfuron + dicamba – 0.169-0.253 lb/A	Yukon 67.5 WSG – 4-6 oz/A; Add 1% v/v COC or 0.25% v/v NIS.	Nutsedge, morningglories, common ragweed.	Apply to 2-leaf to 15-inch sorghum. Do not exceed 8 oz/A/season.
prosulfuron - 0.027 lb/A	Peak - 0.75 oz/A; Add 0.25% v/v NIS.	Most broadleaf weeds.	See crop rotation section on label for precautions about rotational. Do not apply to grain sorghum under stress from moisture or cold weather. Do not apply to sorghum that has been treated with an organophosphate insecticide at planting or within 15 day of postemergence organophosphate insecticide application.
quinclorac - 0.25-0.375 lb/A + atrazine - 0.5-1.0 lb/A	Facet L – 22-32 oz/A + 1 to 2 pt/A atrazine (4L); Add 1% v/v COC.	Broadleaf weeds controlled by atrazine plus improved grass control.	See comments for atrazine plus crop oil above. Facet L can be applied to grain sorghum from emergence up to 12 inches tall. Apply when weeds are small and actively growing. See label.
S–metolachlor - 0.95-1.6 lb/A	Various formulations; See product label for specific rates.	Most annual grasses and some broadleaf weeds.	Use with Concep-treated grain sorghum seed only. Risk of sorghum injury increases with adjuvants or fertilizers are applied with Dual Magnum.

Table 5. Preharvest or harvest aid.

Active Ingredient and Rate	Formulated Product and Rate	Weeds Controlled	Remarks and Precautions
carfentrazone - 0.016 lb/A	Aim - 1.0 oz/A; Add 0.25% v/v NIS.	Desiccation of morningglories.	Apply three days prior to harvest. Thorough coverage is essential; use at least 10 GPA. Tank mixture can include sodium chlorate.
glyphosate - 0.77-1.0 lb/A	Various formulations; See product label for specific rates.	Grass and broadleaf weeds, grain sorghum regrowth.	May be applied prior to harvest after grain sorghum has reached 30% moisture or less. Allow a minimum of seven days preharvest interval. Not recommended for grain sorghum grown for seed. Consult label.
sodium chlorate - 6 lb/A	Various formulations; See product label for specific rates.	Desiccation of green vegetation.	Apply seven to 10 days prior to harvest. Follow label directions.

