

GRAIN SORGHUM WEED MANAGEMENT

GRAIN SORGHUM

Active Ingredient and Rate	Formulated Product and Rate	Weeds Controlled	Remarks and Precautions
PREPLANT¹:			
dicamba @ 0.25 lb/A	Clarity or Banvel @ 0.5 pt/A	Most broadleaf weeds; see label	Apply at least 15 days prior to planting for emerged weeds. Effective for controlling broadleaf weeds which have emerged before planting: henbit, smartweed, etc. If grass is present, mix with glyphosate or paraquat.
S-metolachlor ² @ 0.9-1.4 lb/A	Dual Magnum/Cinch @ 1-1.6 pt/A	Yellow nutsedge, annual grasses, pigweed	Use with Concep treated grain sorghum seed only. Incorporate thoroughly in top 2 inches within 14 days of planting. If broadleaf weeds emerge, use 2,4-D or atrazine postemergence.
dimethenamid-P @ 0.56-0.98 lb/A	Outlook 6L @ 12-21 oz/A	Yellow nutsedge, annual grasses, pigweed	Use with Concep treated grain sorghum seed only. Apply up to 45 days preplant.
PREEMERGENCE:			
atrazine @ 2.0 lb/A	90 DF formulations @ 2.2 lb/A 4L formulations @ 2 qt/A Reduce rate by 25% on highly erodible soils.	Most annual small-seeded broadleaf weeds and some grasses	Apply after planting before weeds and crop emerge. Do not apply to soils with less than 1% OM or to soils of lighter texture than silt loams. Only sorghum or corn should be planted within 1 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.
S-metolachlor ² @ 1.0-1.9 lb/A	Dual II Magnum, Dual Magnum, Cinch @ 1.0-1.33 pt/A on light soil 1.33-1.5 pt/A on medium soil 1.33-1.67 pt/A on heavy soil	Most annual grasses and some broadleaf weeds	Apply after planting before weeds and crop emerge. Do not apply to light soils or any soils with less than 1% organic matter. Use with Concep treated grain sorghum seed only.
S-metolachlor @ 0.75-1.25 lb/A + atrazine @ 1.0-1.63 lb/A	Bicep II Magnum / Cinch ATZ @ 1.6 qt/A on medium soil 2.1 qt/A on heavy soil	Most small-seeded annual grasses and broadleaf weeds	Apply after planting before weeds and crop emerge. 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. Use with Concep treated grain sorghum seed only. Injury can occur if applied when soils are cool and wet during early growth of grain sorghum.
S-metolachlor @ 1.3 lb/A + atrazine @ 1.3 lb/A + mesotrione @ 0.168 lb/A	Lexar EZ @ 3 qt/A	Most small-seeded grasses and broadleaf weeds	Can be applied preplant (up to 21 days before planting) to preemergence. Use with Concep treated grain sorghum seed only. 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.

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PREEMERGENCE continued:			
saflufenacil @ 0.02-0.05 lb/A + dimethenamid-P @ 0.16-0.39 lb/A	Verdict @ 4-10 oz/A on light soils 6-12 oz/A on medium and heavy soils	Small-seeded grasses and broadleaf weeds	Can be applied preplant to preemergence. Rates depend upon soil texture. Use with Concep treated grain sorghum seed only. 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.
POSTEMERGENCE:			
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	90 DF formulations @ 1.11-2.2 lb/A 4L formulations @ 1-2 qt/A Apply with COC @ 1gal/100gal	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 overtop 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.
dicamba @ 0.25 lb/A	Clarity or Banvel @ 0.5 pt/A	Most broadleaf weeds; see label	Apply at Spike to 15-inch tall sorghum. Optimal timing is 3-5 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.
quinclorac @ 0.25-0.375 lb/A + atrazine @ 0.5-1.0 lb/A	Facet L @ 22-32 oz/A + 1-2 pt/A atrazine (4L) Apply with COC @ 2 pt/A	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.
prosulfuron @ 0.027 lb/A	Peak @ 0.75 oz/A Apply with NIS @ 1 qt/100 gal	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.

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halosulfuron @ 0.031-0.047 lb/A	Permit @ 0.67-1.0 oz/A Apply with COC @ 1 gal/100gal or NIS @ 1 qt/100 gal	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.
halosulfuron @ 0.031-0.047 lb/A + dicamba @ 0.14-0.21 lb/A	Yukon 67.5 WSG @ 4- 6 oz/A Apply with NIS @ 1 qt/100 gal or COC @ 1 gal/100gal	Nutsedge, morningglories, common ragweed	Apply to 2-leaf to 15-inch sorghum. Do not exceed 8 oz/A/season.
bromoxynil @ 0.18-0.22 lb/A + pyrasulfotole @ 0.03-0.39 lb/A	Huskie @ 12.8-16 oz/A Apply with NIS @ 0.25% v/v	Broadleaf weeds	Apply from 3-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 should be tank-mixed to broaden the weed spectrum.
PREHARVEST:			
carfentrazone @ 0.016 lb/A	Aim @ 1.0 oz/A	Desiccation of morningglories	Apply 3 days prior to harvest. Thorough coverage is essential; use at least 10 GPA. Tank-mixture can include sodium chlorate.
glyphosate ³ @ 0.77-1.0 lb/A	Roundup PowerMax @ 22 oz/A 4L formulations @ 32 oz/A	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 7 days preharvest interval. Not recommended for grain sorghum grown for seed. Consult label.
sodium chlorate @ 6 lb/A	6 lb/gal formulation @ 1 gal/A 5 lb/gal formulation @ 1.2 gal/A 3 lb/gal formulation @ 2 gal/A	Desiccation of green vegetation.	Apply 7-10 days prior to harvest. Follow label directions.
Spot treatment for control of johnsongrass and other weeds. Mix 1-2 gal. of Roundup Ultra ⁴ per 100 gal. of water. Spray weeds to point of drip before grain sorghum heads. Sprayed sorghum and weeds will be killed. Apply with caution to prevent excessive crop injury.			

¹ Refer to the burndown section of this guide for suggestions on managing cool-season weeds.

² Dual is manufactured by Syngenta Crop Protection, has been extensively used in corn production and has the common name metolachlor. When metolachlor is manufactured, it contains a 1:1 ratio of two metolachlor isomers; the -R and the -S isomer. The -S isomer has greater herbicidal activity than the -R isomer, which allows for a reduction in the amount of -S isomer herbicide needed to obtain similar weed control compared to the -R isomer herbicide. To differentiate between metolachlor herbicides containing the -R or -S isomer consult the label under the "active ingredients" section. The -R isomer is denoted by metolachlor while the -S isomer is denoted by acetamide -(s). Alternatively, according to the Syngenta Crop Protection labels, if the trade names Bicep or Dual include the word "Magnum" (Dual Magnum, Dual II Magnum, Bicep II Lite Magnum), the -S isomer is an active ingredient. If the trade name does not include "Magnum", the metolachlor -R:-S isomer ratio is 1:1 (Dual II, Bicep II, Bicep Lite II).

³ See "Appendix A" for glyphosate products and their surfactant requirements.