

Crop, Situation, and Active Chemical Per Broadcast Acre	Weeds Controlled	Formulated Material Per Broadcast Acre	Time of Application	Method of Application and Precautions
GRAIN SORGHUM				
Preplant				
glyphosate @ 1 lb/A	Emerged weeds.	Glyphosate (4 lb/gal formulations) 32 oz/A.	Preplant for vegetation knockdown.	Apply in low volume – 5 to 10 gpa.
glyphosate + 2,4-D @ 1.0 + 0.50 lb/A	Annual grasses and broadleaf weeds.	Glyphosate (4 lb/gal formulations) + 2,4-D 32 oz/A + 1 pt/A of 4SL 2,4-D amine.	Same as above.	Improved control of horseweed, curly dock and primrose.
S-metolachlor @ 0.9 to 1.4 lb/A	Red rice, yellow nutsedge, annual grasses, and pigweed.	Dual II Magnum 7.64 EC or Cinch 7.64 EC 1 to 1.6 pt/A.	Incorporate thoroughly in top 2 inches within 14 days before planting.	Use with Concep-treated sorghum seed only. If broadleaf weeds emerge, use 2,4-D or atrazine postemergence.
dimethenamid @ 0.56 to 0.98 lb/A	Red rice, yellow nutsedge, annual grasses, and pigweed.	Outlook 6 E 12 to 21 oz/A.	Apply up to 45 days preplant.	Use with Concep-treated seed only.
Preemergence				
S-metolachlor @ 0.95 to 1.9 lb/A	Annual grasses and pigweed. For red rice or yellow nutsedge use ppi treatment above.	Dual II Magnum 7.64 EC or Cinch 7.64 EC 1 to 2 pt/A.	At planting.	Use with Concep-treated sorghum seed only. May be tank mixed with atrazine according to label directions or may be followed with atrazine or 2,4-D for broadleaf control as recommended below.
S-metolachlor/atrazine @ 1.25 + 1 lb/A	Annual grasses and broadleaf weeds. For red rice or yellow nutsedge, use Dual Magnum ppi above.	Bicep II Magnum 5.5 L or Cinch ATZ 5.5 F 1.3 qt/A.	At planting.	Use with Concep-treated seed only. Good treatments for average weed infestations. However, if red rice is a problem, use Dual ppi and atrazine early post if needed. If heavy cocklebur and morningglory pressure exists, use atrazine preemergence at preemergence rates below or use atrazine early post as listed below.
atrazine @ 1 lb/A	Germinating annual grasses and most annual broadleaf weeds, including cocklebur, annual morningglory, and sicklepod.	Atrazine 1 qt/A 4L or 1.1 lb/A Nine-0.	At planting.	Do not plant fall cover crops. Do not plant crops other than corn in treated fields during the same season. Thoroughly till soil before planting any spring crop other than corn or sorghum. Planting deeper than 1 inch will increase safety margin. Do not use on coarse-textured soils (sand, loamy sand, sandy loam) or on any soil with less than 1% o.m. For sandy soils, see AAtrex + oil below. All atrazine labels have been revised because of surface and groundwater concerns. Special precautions are required on new labels.

Crop, Situation, and Active Chemical Per Broadcast Acre	Weeds Controlled	Formulated Material Per Broadcast Acre	Time of Application	Method of Application and Precautions
GRAIN SORGHUM				
Preemergence [cont.]				
dimethenamid 0.56 to 0.98 lb/A	For annual grasses and pigweed. For red rice or yellow nutsedge use ppi treatment.	Outlook 6E 12 to 21 oz/A.	At planting.	Use with Concep-treated seed only. Rates depend on percent organic matter. See label.
dimethenamid + atrazine package mix	Annual grasses and broadleaf weeds. For red rice or yellow nutsedge use ppi treatment.	Guardman Max 5L 2.5 pt/A.	At planting.	Use with Concep-treated seed only.
Postemergence				
2,4-D amine @ 0.5 lb/A	Most broadleaf weeds such as morningglory, cocklebur, and sicklepod.	2,4-D amine 1 pt/A of 4 lb/gal 2,4-D amine. Do not use a surfactant or oil.	Apply when weeds are small and sorghum 6 to 12 inches.	May be applied broadcast overtop to sorghum not over 8 inches. Directed applications later with drop nozzles. Do not treat when sorghum is in bloom. AVOID DRIFT. Do not apply during very active growth, i.e. when combination of good moisture, warm temperatures, and high nitrogen exist, or excessive injury may result. Follow all State Plant Board regulations.
dicamba @ 0.25 lb/A	Same as above.	Banvel or Clarity 4 SL 0.5 pt/A. Do not use a surfactant or oil.	From grain sorghum emergence up to 8 inches tall. Best results on weeds 3 inches or less.	Ground application only. Drift is extremely toxic to soybeans. Do not apply after soybeans begin to emerge in general area. Less toxic than 2,4-D to cotton. Follow all State Plant Board regulations.
atrazine @ 1 to 2 lb/A	Most small-seeded annuals. More effective on broadleaf weeds. Good control of pigweed, cocklebur, annual morningglory, velvetleaf, spurred anoda, prickly sida, smartweed, sicklepod, and red rice.	AAtrex, Atrazine 1.25 to 2.5 lb/A 80W or 1 to 2 qt/A 4L or 1.1 to 2.2 lb/A Nine-0. Use low rate on silt loam soil and high rate on clay soil. No surfactant is recommended on label.	Apply from sorghum emergence up to "close in". Apply before weeds exceed 1 1/2 inches in height. Best grass control obtained before grass weeds exceed 1/2 inch.	Do not apply if grain sorghum is taller than 12 inches. Do not graze treated areas or feed forage from treated land within 21 days of application. After June 10, do not plant crops other than corn or grain sorghum the following year. Do not use on sands or sandy loam soils. For these soils, use Atrazine and crop oil concentrate below. Do not apply more than 2.5 lb/A active atrazine per season.
atrazine @ 1.2 lb/A + oil concentrate	Same as above.	AAtrex, Atrazine + Crop Oil Concentrate 1.5 lb/A 80W or 1.2 qt/A 4L or 1.33 lb/A Nine-0 + 1 qt/A oil concentrate.	Same as above.	Same as above but may be used on sandy loam soil. Less likely to cause injury to milo or carryover to sensitive follow crops.

Crop, Situation, and Active Chemical Per Broadcast Acre	Weeds Controlled	Formulated Material Per Broadcast Acre	Time of Application	Method of Application and Precautions
prosulfuron @ 0.027 lb/A	Most broadleaf weeds including triazine resistant biotypes.	Peak 57 WDG 0.75 oz per acre. Add 0.25% non-ionic surfactant.	Apply to actively growing sorghum between 5 and 20 inches in height and before head emergence.	Will not control ALS-resistant weeds. See crop rotation section for precautions about rotational crops. Do not apply to 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 days of a post-emergence organophosphate insecticide application.
bentazon @ 0.75 to 1 lb/A	Cocklebur, ragweed, jimsonweed, smartweed, prickly sida, velvetleaf, and yellow nutsedge.	Basagran 4 S 0.75 to 1 qt/A.	Postemergence. See label for specific timing for weed desired.	May be tank mixed with atrazine. See label. Best treatment for smartweed.
bentazon + atrazine @ 0.5 to 0.75 + 0.5 to 0.75 lb/A	Most broadleaf weeds.	Basagran + Atrazine 1 to 1.5 pt/A + 1 to 1.5 pt/A 4L or 0.6 to 0.9 lb/A 80W or 0.55 to 0.8 lb/A 90DF. Add crop oil concentrate. Package mix is Laddock . 2 1/2 pt/A Laddock = 0.5 to 0.5 lb/A a.i. rate.	Postemergence from emergence to boot.	Use low rate on small weeds and higher rate on larger weeds. All atrazine labels have been revised because of surface and groundwater concerns. Special precautions are required on new labels.
bromoxynil @ 0.25 to 0.375 lb/A	Cocklebur, smartweed, morningglories, and pigweed.	Buctril 2 E 1 to 1 1/2 pt/A. On larger weeds, tank mix with 0.5 lb/A active Atrazine.	Postemergence to weeds in seedling (2- to 4-leaf) stage.	Use high rate on morningglories and pigweed. Weeds must be small. Expect some temporary burn.
paraquat @ 0.25 to 0.5 lb/A	Annual grasses and broadleaf weeds.	Paraquat (3 lb/gal formulations) 1 to 2 pt/A. Add 0.25% nonionic surfactant.	After sorghum is 12 inches.	Directed spray with hoods. Spray must not touch more than lower 3 inches of stalk. Some injury will occur.
quinclorac @ 0.25 to 0.375 lb/A	Annual grasses and broadleaf weeds.	Paramount 75 DF 5 to 8 oz/A.	Apply to weeds less than 2 inches tall.	Apply prior to 12-inch grain sorghum.
Preharvest				
sodium chlorate @ 4.5 to 6 lb/A	Desiccation of green vegetation.	Sodium Chlorate Several brands and trade names available. 2 gal of 3 lb/gal or 1 gal of 6 lb/gal	7 to 10 days prior to harvest.	Use a labeled brand and follow label directions.
carfentrazone @ 0.0312 lb/A	Desiccation of morningglories.	2 oz/A. Aim 2 EC	3 days prior to harvest.	Coverage is important. Use 10 gallons of spray solution per acre. Can be tank mixed with sodium chlorate.