

## GRAIN SORGHUM

See page 22 for PRECAUTIONS on use of atrazine containing products near ground and surface water. See comments in the corn section for detailed information on each of the herbicides listed below such as application methods and crop rotation restrictions.

### Preemergence

ATRAZINE 4L 1.6 to 2 qt/A or (atrazine 1.6 to 2 lb ai/A)  
 AATREX NINE-O 1.8 to 2.2 lb/A

**Weeds Controlled:** Black nightshade, cocklebur, common ragweed, giant ragweed, jimsonweed, lambsquarters, morningglories, pigweeds, prickly sida, smartweed, velvetleaf.

**Remarks:** Apply at-planting prior to sorghum emergence or before sorghum exceeds 12 inches in height as a postemergence treatment. In case of crop failure, sorghum may be replanted into soil previously treated with ATRAZINE. Do not make a second ATRAZINE application or injury may occur.

CALLISTO 6.0 to 6.4 fl. oz/A (mesotrione 0.18 to 0.20 lb ai/A)

**Weeds Controlled:** Black nightshade, cocklebur, jimsonweed, lambsquarters, pigweeds, smartweed, velvetleaf.

**Remarks:** Except for grain sorghum and sweet sorghum do not use CALLISTO in the production of other types of sorghums such as forage sorghums or sudangrass. Can be applied preemergence or as a pre-plant non-incorporated treatment up to 21 days before planting sorghum. Applying CALLISTO more than 7 days (but not more than 21 days) prior to planting will reduce the risk of crop injury. If emerged weeds are present at the time of the preemergence application, use a nonionic surfactant (NIS) at 0.25% v/v or crop oil concentrate (COC) at 1% v/v (UAN or AMS can also be added to the spray solution). Do not apply CALLISTO to emerged sorghum or severe crop injury may occur. In case of crop failure, corn, sorghum, or pearl millet may be replanted into soil previously treated with CALLISTO. Do not make a second application or injury may occur.

LEXAR EZ 3 qt/A [S-metolachlor:mesotrione;atrazine 1.3:0.17:1.3 lb ai/A]  
 or  
 LUMAX EZ 2.7 qt/A [S-metolachlor:mesotrione;atrazine 1.7:0.17:0.5 lb ai/A]

**Weeds Controlled:** Barnyardgrass, black nightshade, crabgrass, fall panicum, foxtails, lambsquarters, pigweeds, prickly sida, common ragweed, smartweed, velvetleaf.

**Remarks:** Use Concep III treated sorghum seed. Apply LEXAR EZ or LUMAX EZ as a broadcast non-incorporated treatment up to 21 days before planting and up through planting but prior to sorghum emergence. Applying more than 7 days (but not more than 21 days) prior to planting will reduce the risk of crop injury. May also be applied as a split application to grain sorghum, but cannot exceed the maximum rate of 3 qt/A of LEXAR EZ or 2.7 qt/A of LUMAX EZ. If emerged weeds are present at the time of the preemergence application use a nonionic surfactant (NIS) at 0.25% v/v or crop oil concentrate (COC) at 1% v/v (a spray grade of UAN or AMS can also be added to the spray solution). Do not apply LEXAR EZ or LUMAX EZ to emerged sorghum or severe crop injury may occur. Do not use for production of other sorghums such as forage sorghum, sweet sorghum, or sudangrass. In case of crop failure, corn or grain sorghum (Concep treated) may be replanted immediately, but do not reapply LEXAR EZ, LUMAX EZ, or ZEMAX.

## Grain Sorghum 69

SHARPEN 1 to 2 fl.oz/A

(salfufenacil 0.022 to 0.044 lb ai/A)

**Weeds Controlled:** Cocklebur, marestail (horseweed), morningglory, giant ragweed, and velvetleaf.

**Remarks:** Apply preplant or preemergence to grain sorghum for broadleaf weed control. Can also be applied prior to sorghum emergence as a burndown treated on emerged weeds (consult label for use of MSO plus AMS or UAN as additives). Do not apply SHARPEN after sorghum emergence or severe crop injury will occur. To avoid potential injury to sensitive hybrids consult with your local seed supplier. Do not apply when an at-planting application of an organophosphate or carbamate insecticide has been used. Sorghum can be harvested for forage, fed, or grazed 70 days or more after application. Tank mixtures include Atrazine, Clarity, Glyphosate (eg. Roundup), Guardsman Max, or Outlook.

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ZEMAX 2 qt/A

[S-metolachlor:mesotrione 1.67:0.165 lb ai/A]

**Weeds Controlled:** Barnyardgrass, crabgrass, fall panicum, foxtails, black nightshade, lambsquarters, pigweeds, smartweed, velvetleaf, waterhemp.

**Remarks:** Use Concep III treated sorghum seed. Apply ZEMAX preplant non-incorporated (up to 21 days before planting) up through preemergence of grain sorghum. Applying more than 7 days (but not more than 21 days) prior to sorghum planting will reduce the risk of crop injury. ZEMAX may also be applied as a split application to grain sorghum, but cannot exceed the maximum rate of 2 qt/A. If emerged weeds are present at the time of the preemergence application use a nonionic surfactant (NIS) at 0.25% v/v or crop oil concentrate (COC) at 1% v/v (a spray grade of UAN or AMS can also be added to the spray solution). Do not apply ZEMAX to emerged sorghum or severe crop injury may occur. Do not use for production of other sorghums such as forage sorghum, sweet sorghum, or sudangrass. In case of crop failure, corn or grain sorghum (Concep treated) may be replanted immediately, but do not reapply Lexar, Lumax, or Zemax.

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### Preplant Incorporate or Preemergence

DUAL II MAGNUM or CINCH 1.33 to 1.67 pt/A

(S-metolachlor 1.3 to 1.6 lb ai/A)

**Weeds Controlled:** Black nightshade, crabgrass, fall panicum, foxtails, pigweeds, yellow nutsedge.

**Remarks:** Use CONCEP treated sorghum seed.

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BICEP II MAGNUM or CINCH ATZ 1.6 qt/A

(S-metolachlor:atrazine 1.0:1.2 lb ai/A)

OR

OR

DUAL II MAGNUM or CINCH 1 pt/A

(S-metolachlor 1.0 lb ai/A)

+

+

AATREX 4L 1.2 qt/A or

(atrazine 1.2 lb ai/A)

AATREX NINE-O 1.3 lb/A

**Weeds Controlled:** Black nightshade, cocklebur, common ragweed, crabgrass, fall panicum, foxtails, jimsonweed, lambsquarters, morningglories, pigweeds, prickly sida, smartweed.

**Remarks:** Use CONCEP or SCREEN treated sorghum seed.

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OUTLOOK 6E 14 to 20 oz/A

(dimethenamid-P 0.66 to 0.94 lb ai/A)

**Weeds Controlled:** Barnyardgrass, crabgrass, fall panicum, foxtails, black nightshade, pigweed.

**Remarks:** Use sorghum seed treated with a seed safener.

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## 70 Grain Sorghum

GUARDSMAN MAX 5E 3 to 4.6 pt/A

OR

OUTLOOK 6E 14 to 20 oz/A

+

ATRAZINE 4L 1 to 2 qt/A or

AATREX NINE-O 1.1 to 2.2 lb/A

[dimethenamid-P:atrazine (0.6:1.2) to (0.98:1.9) lb ai/A]

OR

(dimethenamid-P 0.66 to 0.94 lb ai/A)

+

(atrazine 1 to 2 lb ai/A)

**Weeds Controlled:** Barnyardgrass, black nightshade, cocklebur, common ragweed, crabgrass, fall panicum, foxtails, jimsonweed, lambsquarters, morningglory, pigweed, prickly sida, smartweed.

**Remarks:** Use sorghum seed treated with a seed safener such as SCREEN or CONCEP.

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DEGREE XTRA 2.0 to 3.7 qt/A

[acetochlor:atrazine (1.35:0.67 to 2.5:1.24 lb ai/A)]

**Weeds Controlled:** Barnyardgrass, crabgrass, fall panicum, foxtails, black nightshade, lambsquarters, pigweed, prickly sida, common ragweed, smartweed.

**Remarks:** Use sorghum seed treated with a seed safener. Apply preplant incorporated, preemergence surface, or postemergence before crop exceeds 11 inches in height (5 to 6 leaf stage). For grain sorghum forage, allow 60-day preharvest interval.

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MILO-PRO 4L 0.75 to 1.2 qt/A

(propazine 0.75 to 1.2 lb ai/A)

**Weeds Controlled:** Lambsquarters, morningglories, pigweeds, ragweed, smartweed, velvetleaf.

**Remarks:** Shallow incorporate (less than 2 inches deep) or apply preemergence at planting before weeds and sorghum emerges. If replanting is necessary, sorghum may be planted into soil previously treated with propazine; however, an additional application is prohibited. Do not apply more than one application per crop growing season. Do not rotate to small grain crops less than 120 days after application. Corn may be planted 12 months after treatment; other crops may require an 18 month waiting period after treatment. Do not apply within 70 days of harvest for sorghum forage or within 90 days of harvest for grain sorghum or sorghum stover. Not registered for use on sweet sorghum.

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## No Tillage

NOTE: These treatments include foliar herbicides to kill existing vegetation at or prior to planting and soil residual herbicides for preemergence control of annual grasses and broadleaf weeds. These may be applied either before or after planting but before crop emergence. Depending on the amount of vegetation present and the herbicides used apply in 20 to 40 gallons of liquid per acre. Consult the herbicide labels for specific directions.

GUARDSMAN MAX 5E 3 to 4.6 pt/A	[dimethenamid-P:atrazine (0.6:1.2) to (0.98:1.9) lb ai/A]
OR	OR
OUTLOOK 6E 14 to 20 oz/A	(dimethenamid-P 0.66 to 0.94 lb ai/A)
+	+
ATRAZINE 4L 1 to 2 qt/A or	(atrazine 1 to 2 lb ai/A)
AATREX NINE-O 1.1 to 2.2 lb/A	
+	+
GRAMOXONE 2S 2 to 4 pt/A or	(paraquat 0.28 to 1.0 lb ai/A) or
FIRESTORM or PARAZONE 3S 1.3 to 2.7 pt/A	(paraquat 0.47 to 1.0 lb ai/A)
with NON-IONIC SURFACTANT	
OR	OR
ROUNDUP PowerMAX 2 pt/A or	
GLYPHOSATE [4 lb ai/gal (3 lb ae/gal)] 3 pt/A	(glyphosate 1.5 lb ai/A)

**Weeds Controlled:** Barnyardgrass, black nightshade, cocklebur, common ragweed, crabgrass, fall panicum, foxtails, jimsonweed, lambsquarters, morningglory, pigweed, prickly sida, smartweed.

**Remarks:** Use sorghum seed treated with a seed safener.

BICEP II MAGNUM or CINCH ATZ 1.8 to 2.1 qt/A	[S-metolachlor:atrazine (1.1:1.4) to (1.3:1.6) lb ai/A]
OR	OR
DUAL II MAGNUM or CINCH 1.5 pt/A	(S-metolachlor 1.4 lb ai/A)
+	+
AATREX 4L 1.5 to 1.8 qt/A or	(atrazine 1.5 to 1.8 lb ai/A)
AATREX NINE-O 1.7 to 2 lb/A	
+	+
GRAMOXONE 2S 2 to 4 pt/A or	(paraquat 0.28 to 1.0 lb ai/A) or
FIRESTORM or PARAZONE 3S 1.3 to 2.7 pt/A	(paraquat 0.47 to 1.0 lb ai/A)
with NON-IONIC SURFACTANT	
OR	OR
ROUNDUP PowerMAX 2 pt/A or	
GLYPHOSATE [4 lb ai/gal (3 lb ae/gal)] 3 pt/A	(glyphosate 1.5 lb ai/A)

**Weeds Controlled:** Black nightshade, cocklebur, common ragweed, crabgrass, fall panicum, foxtails, jimsonweed, lambsquarters, morningglories, pigweeds, prickly sida, smartweed.

**Remarks:** Use CONCEP or SCREEN treated sorghum seed.

EXPERT 4.88L 3 qt/A	[S-metolachlor:atrazine:glyphosate (1.3:1.6:0.75) lb ai/A]
OR	OR
SEQUENCE 5.25L 3.5 pt/A	[S-metolachlor:glyphosate (1.3:1.0) lb ai/A]
+	+
AATREX 4L 1.5 to 1.8 qt/A or	(atrazine 1.5 to 1.8 lb ai/A)
AATREX NINE-O 1.7 to 2 lb/A	

**Weeds Controlled:** Barnyardgrass, cocklebur, common ragweed, crabgrass, fall panicum, foxtails, jimsonweed, lambsquarters, morningglory, black nightshade, pigweed, prickly sida, smartweed.

**Remarks:** Use CONCEP or SCREEN treated sorghum seed.

## 72 Grain Sorghum

### Postemergence

AIM EW 0.5 fl.oz/A (carfentrazone 0.008 lb ai/A)  
+  
SURFACTANT (Non-Ionic 80%) 0.5 pt/25 gal (additive)

**Weeds Controlled:** Black nightshade, lambsquarters, morningglories, velvetleaf.

**REMARKS:** Apply from prior to planting up to 6 leaf collar growth stage of grain sorghum. When weeds are under stress or are larger, higher use rates of AIM at 0.6 to 1 oz/A may be made with directed spray equipment or hooded sprayers.

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BICEP II MAGNUM 1.6 to 2.1 qt/A (S-metolachlor:atrazine 1.0:1.2 to 1.3:1.6 lb ai/A)  
+  
CROP OIL CONCENTRATE (1% v/v) (additive)  
[AMS or UAN can be added]

**Weeds Controlled:** Black nightshade, cocklebur, common ragweed, crabgrass, fall panicum, foxtails, jimsonweed, lambsquarters, morningglories, pigweeds, prickly sida, smartweed. Apply before weeds exceed 2-leaf stage.

**Remarks:** Use CONCEP III treated sorghum seed. Apply to sorghum from 3-leaf stage (3 visible collars) up to 12 inches in height. The total amount applied during any crop season should not exceed 2.58 qt/A.

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BUCTRIL 2EC 1 to 1.5 pt/A (bromoxynil 0.25 to 0.38 lb ai/A)

**Weeds Controlled:** Black nightshade, cocklebur, common ragweed, jimsonweed, lambsquarters, smartweed, velvetleaf.

**Remarks:** BROADCAST. Observe label for specific rates and growth stages of crop and weeds. Do not cut for feed or graze within days of application.

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2,4-D AMINE 1 pt/A (2,4-D 0.5 lb ai/A)  
[4 lb ai/gal formulation]

**Weeds Controlled:** Black nightshade, cocklebur, common ragweed, giant ragweed, lambsquarters, morningglories, pigweeds, prickly sida, velvetleaf.

**Remarks:** BROADCAST or DIRECTED. Apply when sorghum is 6 to 15 inches tall. USE DIRECTED applications when sorghum is 8 to 15" tall. Do not apply during flowering or early dough stage.

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DICAMBA 4S 8 oz/A (0.5 pt/A) (dicamba 0.25 lb ai/A)  
[ie. CLARITY, STERLING BLUE, VISION, etc.]

**Weeds Controlled:** Black nightshade, cocklebur, common ragweed, giant ragweed, jimsonweed, lambsquarters, morningglories, pigweeds, prickly sida, smartweed, velvetleaf.

**Remarks:** BROADCAST or DIRECTED. Apply after sorghum is in the 3-leaf stage and before it is 15 inches tall. Use drop nozzles if sorghum is taller than 8 inches. For optimum results, apply when sorghum is in the 3-leaf to 5-leaf stage and weeds are small (less than 3 inches). Do not graze or feed treated sorghum as forage or silage prior to mature grain stage.

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## Grain Sorghum 73

STARANE 1.5E 0.67 pt/A

(fluroxypyr 0.125 lb ai/A)

**Weeds Controlled:** Cocklebur, common ragweed, morningglory, velvetleaf.

**Remarks:** BROADCAST or DIRECTED. Apply as a broadcast treatment when grain sorghum is from the 3-leaf through the 7-leaf growth stage. Use drop nozzles and directed spray from the 8-leaf stage to boot stage. Do not apply after the boot stage. An adjuvant may be added for improved weed control. Do not allow livestock to graze or harvest forage within 40 days of application. Do not apply within 70 days of harvesting grain or stover.

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PERMIT 75DF 0.67 oz/A

(halosulfuron 0.032 lb ai/A)

+

+

NON-IONIC SURFACTANT 1 to 2 qt/100 gal  
or CROP OIL CONCENTRATE 4 qt/100 gal

(additive)

**Weeds Controlled:** Cocklebur, common ragweed, pigweed, velvetleaf, yellow nutsedge.

**Remarks:** BROADCAST. Apply PERMIT to crop after 2-leaf stage but before grain head emergence. Observe label for size of specific weed species. Do not cut for feed or graze within 30 days after application. Rotational crops which may be planted include wheat after 3 months, soybeans after 10 months following application.

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WEEDMASTER 1 pt/A

[dicamba:2,4-D (0.125:0.36 lb ai/A)]

**Weeds Controlled:** Black nightshade, cocklebur, common ragweed, giant ragweed, jimsonweed, lambsquarters, morningglories, pigweeds, prickly sida, smartweed, velvetleaf.

**Remarks:** BROADCAST. Apply to sorghum in the 3–5 leaf stage (4 to 8" tall). For optimum results apply when weeds are small (less than 3" tall). Under periods of rapid growth temporary leaning or rolling of leaves may occur. Sorghum growing under conditions of stress may be sensitive to injury.

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YUKON 67.5 WDG 4 to 6 oz/A

[halosulfuron:dicamba (0.031:138) to (0.05:21) lb ai/A)]

+

+

NON-IONIC SURFACTANT 1 to 2 qt/100 gal  
or CROP OIL CONCENTRATE 4 qt/100 gal

(additive)

**Weeds Controlled:** Black nightshade, cocklebur, jimsonweed, lambsquarters, morningglory, pigweeds, common ragweed, giant ragweed, smartweed, velvetleaf, yellow nutsedge.

**Remarks:** BROADCAST or DIRECTED. Apply YUKON to crop from the 2-leaf stage through 15 inch tall sorghum. **Use drop nozzles if sorghum is taller than 8 inches.** Observe label for size of specific weed species. Do not graze or feed treated sorghum forage or silage prior to mature grain stage. Rotational crops which may be planted include field corn after 1 month; wheat, rye, oats, sorghums, and forage grasses after 2 months; or soybeans, alfalfa, and clovers after 9 months following application.

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GRAMOXONE SL 2.0 1 to 2 pt/A

(paraquat 0.25 to 0.5 lb ai/A)

OR

OR

FIRESTORM or PARAZONE 3SL 0.7 to 1.3 pt/A

(paraquat 0.28 to 0.47 lb ai/A)

+

NON-IONIC SURFACTANT 1 to 2 qt/100 gal

**Weeds Controlled:** Many small annual grasses and broadleaf weeds.

**Remarks:** DIRECTED. Apply when sorghum is at least 12 inches tall and naturally standing. Direct spray to lower 3 inches of the sorghum plant using nozzles mounted on skid shoes, oiling shoes, fenders, or cultivators with gauge wheels. Do not exceed 30 psi when spraying.

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