

**ATRAZINE AND WATER QUALITY**

Atrazine label restrictions regarding mixing, loading and application are discussed below. These restrictions are part of the overall ground and surface water contamination risk reduction measures. Atrazine users are strongly encouraged to follow these guidelines to comply with the label, and to share in the responsibility of preserving the future of this extremely valuable corn herbicide. **These restrictions, and the Restricted Use Pesticide designation, apply to all formulations of atrazine, and all package mix products which contain atrazine.**

**Mixing, Loading and Application** – Atrazine may not be mixed/loaded or used within 50 feet of all wells, including abandoned wells, drainage wells and sink holes. Atrazine may not be mixed or loaded within 50 feet of intermittent streams and rivers, natural or impounded lakes and reservoirs. Atrazine may not be applied aerially or by ground within 66 feet of the points where field surface runoff enters perennial or intermittent streams and rivers or within 200 feet around natural or impounded lakes and reservoirs. If atrazine is applied to highly erodible land, the 66-foot buffer or setback from runoff entry points must be planted to corn, seeded with grass, or another suitable crop.

**Application rates – All soil applications prior to crop emergence –**

**\*Highly Erodible Soils** (as defined by NRCS) – If conservation tillage is practiced (at least 30 percent of residue coverage at planting), apply a maximum of 2 lbs a.i./acre. If residue coverage is less than 30 percent, apply a maximum of 1.6 lbs a.i./acre.

**\*Soils Not Highly Erodible** – Apply a maximum of 2 lbs a.i./acre.

**Postemergence Applications** – If no atrazine was applied prior to corn emergence, apply a maximum of 2 lbs a.i./acre. If a postemergence treatment is required following an earlier herbicide application, the total atrazine applied may not exceed 2.5 lbs a.i./acre/calendar year.

Postemergence application to corn must be made before corn exceeds 12 inches in height.

<b>Crop, Situation, and Active Chemical Per Broadcast Acre</b>	<b>Weeds Controlled</b>	<b>Formulated Material Per Broadcast Acre</b>	<b>Time of Application</b>	<b>Method of Application and Precautions</b>
<b>FIELD CORN</b>				
<b>Preemergence</b>				
atrazine @ 2 lb/A	Most small-seeded annuals, annual morningglory, cocklebur, velvetleaf, and smartweed, sicklepod.	<b>AAtrex, Atrazine</b> 2.5 lb/A 80W or 2 qt/A 4L or 2.2 lb/A Nine-0.	At planting.	Do not plant fall cover crops. Do not plant crops other than corn or grain sorghum in treated fields during the same season. Do not apply more than 2.5 lb/A active atrazine per season.
alachlor + atrazine @ 1.5 to 2.25 lb/A + 1 to 1.6 lb/A	Annual grasses, pigweed, annual morningglory, common cocklebur, velvetleaf, smartweed, and sicklepod.	<b>Micro-Tech 4L + AAtrex, Atrazine</b> 1.5 to 2.25 qt/A Lasso + 1.25 to 2 lb/A 80W or 1 to 1.6 qt/A 4L or 1.1 to 1.75 lb/A Nine-0. or <b>Lariat/Bullet 4F</b> 2.5 to 3.75 qt/A.	Preemergence or preplant. <b>Note</b> – This treatment can be applied to emerged corn before it exceeds 5" tall. However, weed control will be reduced if weeds exceed 2" tall.	Add additional atrazine for improved control of cocklebur and morningglory. Rainfall in 5 to 7 days is necessary for best results. With preplants, shallow incorporate 2 to 3 inches within 7 days of planting.
metolachlor + atrazine @ 0.75 to 1.3 lb/A + 1 to 1.6 lb/A	Annual grasses, pigweed, annual morningglory, common cocklebur, velvetleaf, smartweed, and sicklepod.	<b>Cinch or Dual II Magnum 7.64 EC + AAtrex, Atrazine</b> See label for specific formulations in question. 0.8 to 1.4 pt/A + 1.25 lb/A 80W or 2 pt/A 4L to 2.0 lb 80W or 3.2 pt/A 4L. or <b>Bicep II Magnum 5.5 L or Cinch ATZ</b> 1.3 to 2 qt/A.	Preemergence or preplant.	Add additional atrazine for improved control of cocklebur and morningglory. Rainfall in 5 to 7 days is necessary for best results. With preplants, shallow incorporate 2 to 3 inches within 7 days of planting.
dimethenamid + atrazine @ 0.56 to 0.98 lb/A + 0.75 to 2 lb/A	Annual grasses, pigweed, annual morningglory, common cocklebur, velvetleaf, and smartweed.	<b>Outlook 6E + AAtrex, Atrazine</b> 12 to 21 + 0.75 to 2 qt/A 4L or <b>Guardman Max 5L</b> 3 to 4.6 pt/A.	From 45 days preplant to pre-emergence up to 8" tall corn.	Same as above. Rates depend on percent organic matter. See label.
acetochlor + atrazine @ 1.7 lb/A + 0.8 lb/A	Annual grasses, pigweed, morningglory, cocklebur, velvetleaf, smartweed, and sicklepod.	<b>Degree + Atrazine</b> 3.5 pt + 0.8 qt Atrazine 4L. or <b>Degree Xtra</b> 5 pt.	Preplant or preemergence.	Add additional atrazine for improved control of cocklebur and morningglory. Rainfall in 5 to 7 days is necessary for best results. With preplants, shallow incorporate 2 to 3 inches within 7 days of planting.

Crop, Situation, and Active Chemical Per Broadcast Acre	Weeds Controlled	Formulated Material Per Broadcast Acre	Time of Application	Method of Application and Precautions
<b>FIELD CORN</b>				
<b>Preemergence [cont.]</b>				
pendimethalin + atrazine @ 0.75 to 1 lb/A + 1 to 1.6 lb/A	Same as above.	<b>Prowl H<sub>2</sub>O 3.8 CS + Atrazine</b> 1.6 to 2.1 pt/A Prowl + 1.25 to 2 lb/A 80W or 1 to 1.6 qt/A 4L or 1.1 to 1.75 lb/A Nine-0.	Preemergence. <b>Do not incorporate.</b>	Plant corn at least 1 1/2" deep.
flufenacet/metribuzin + atrazine @ 0.55 to 0.94 lb/A + 1.2 to 2 lb/A	Annual grasses and broadleaf weeds.	<b>Axiom 68 DF + Atrazine</b> 13 to 22 oz/A + 1.2 to 2 qt/A Atrazine 4L or equivalent.	At planting.	<b>Cotton and wheat rotation interval 12 months.</b>
mesotrione @ 0.188 to 0.24 lb/A	Annual broadleaf weeds.	<b>Callisto 4L</b> 6 to 7.7 oz/A.	At planting.	<b>Do not plant crops other than corn in treated fields during the same season.</b>
metolachlor + mesotrione + atrazine @ 1.3 + 0.168 + 1.3 lb/A	Annual grasses and broadleaf weeds.	<b>Lexar 3.75 SE</b> 3 qts/A.	Preemergence.	<b>Do not plant crops other than corn in treated fields during the same season.</b>
<b>Postemergence</b>				
atrazine @ 2 lb/A	Most small-seeded annuals. More effective on broadleaf weeds, red rice, and sicklepod.	<b>AAtrex, Atrazine</b> 2.5 lb/A 80W or 2 qt/A of 4L or 2.2 lb/A Nine-0. Select rate according to soil texture. No surfactant recommended on label. Dual, Lasso or Outlook may be added if no soil applied grass herbicide was used. <b>AAtrex, Atrazine + oil</b> 2.5 lb/A 80W or 2 qt/A 4L or 2.2 lb/A Nine-0 + 1 qt/A oil concentrate.	After corn emergence, before grass weeds reach 1/2 inch, or broadleaf 1 1/2 inches.	Do not apply if corn is taller than 12 inches. Do not plant crops other than corn or grain sorghum in treated field until following season. After June 10, do not plant any crop other than corn or grain sorghum the following year. Do not apply more than 2.5 lb/A active atrazine per season.
2,4-D amine @ 0.5 lb/A	Morningglory, cocklebur, and most other young broadleaf weeds.	<b>2,4-D amine</b> 1 pt/A of 4 lb/gal 2,4-D.	Apply when weeds are small and corn is under 12 inches; however, effective results can be obtained with later application.	After corn is more than 12 inches, apply spray directly on weeds with a drop-type nozzle between the corn row and not on the terminal growth of corn. AVOID DRIFT. <b>Follow all State Plant Board Regulations.</b>
dicamba @ 0.25 lb/A	Same as above.	<b>Banvel or Clarity 4SL</b> 0.5 pt/A.	From corn emergence up to 36 inches tall. Best results on weeds 36 inches or less. Use drop nozzles if corn leaves canopy weeds.	Ground application only. <b>Drift is extremely toxic to soybeans.</b> Do not apply after soybeans begin to emerge in general area. Less toxic than 2,4-D to cotton. <b>Follow all State Plant Board regulations.</b>
bentazon @ 0.75 to 1 lb/A	Cocklebur, ragweed, jimsonweed, smartweed, prickly sida, velvetleaf, and yellow nutsedge.	<b>Basagran 4 SL</b> 0.75 to 1 qt/A. <b>Can be tank mixed with 0.5 to 0.75 lb/A active atrazine.</b>	Postemergence. See label for specific timing for weed desired. Corn tolerant at all stages.	May be tank mixed with atrazine. See label. Best treatment for smartweed.

Crop, Situation, and Active Chemical Per Broadcast Acre	Weeds Controlled	Formulated Material Per Broadcast Acre	Time of Application	Method of Application and Precautions
bromoxynil @ 0.25 to 0.375 lb/A	Cocklebur, smartweed, morningglories, and pigweed.	<b>Buctril 2 EC</b> 1 to 1.5 pt/A. <b>On larger weeds, tank mix with 0.5 lb/A active Atrazine.</b>	Postemergence to weeds in seedling (2- to 4-leaf) stage.	Use high rate on morningglories and pigweed. Weeds <b>must</b> be small. Expect some temporary burn.
nicosulfuron @ 0.031 lb/A	Johnsongrass, broadleaf signalgrass, foxtail, and shattercane.	<b>Accent 75 DF</b> Accent 75 DF + nonionic surfactant (80%) or crop oil concentrate and 28% or 32% UAN liquid fertilizer (optional). 0.66 oz/A + 2 pt/100 gal or 1 gal/100 gal and 4 gal/100 gal. Tank mix with atrazine for broadleaf weeds.	Apply to 4- to 10-inch seedling and 8- to 12-inch rhizome johnsongrass. If regrowth occurs, apply a second application when johnsongrass is 8 to 10 inches tall. May be applied to 2- to 6-leaf stage of corn. 1- to 2-leaf broadleaf signalgrass.	Repeat application may be required to control regrowth. <b>Do not apply to corn treated with Counter or Counter 20CR insecticide unless IT (Clearfield) corn is planted. See label for restrictions with other organo-phosphate insecticides, and postemergence herbicides.</b> <b>Do not apply during cool cloudy weather. In Johnsongrass fields, only virus tolerant hybrids are recommended.</b>
primisulfuron @ 0.018 (split) to 0.036 (single) lb/A	Johnsongrass and shattercane.	<b>Beacon 75 DF</b> Beacon 75DF + nonionic surfactant (80%) or crop oil concentrate and 28 to 34% UAN liquid fertilizer (optional). 1 water soluble packet per 2 acres (single application) or 1 packet per 4 acres (split application) + 2 pt/100 gal or 1 to 4 pt/A and 1 to 2 pt/A.	Apply to 4 to 12 inch tall seedling and 8 to 16 inch tall rhizome johnsongrass. Apply a second application when regrowth is 8 to 16 inches tall. May be applied from 4 inch tall corn up to the 6-leaf stage.	Split application will be required for rhizome johnsongrass control. <b>Do not apply to corn treated with Counter or Counter 20CR insecticide unless IT (Clearfield) corn is planted. See label for restrictions with other organophosphate insecticides and postemergence herbicides. Some corn hybrids may be susceptible to injury. See your dealer for a list of restricted hybrids.</b> <b>Do not apply during cool cloudy weather.</b>
primisulfuron/prosulfuron @ 0.035 lb/A	Cocklebur, pigweed, morningglory, sicklepod and other broadleaf weeds.	<b>Exceed 57 WG</b> 1 oz/A. Add 0.25% nonionic surfactant or crop oil concentrate at 1 to 2 pt/A. May be tank mixed with Accent at 0.33 oz/A for grass control.	Over the top where corn is 4 inches tall up to 6-leaf stage.	<b>Do not apply to corn previously treated with Counter 15G or 20CR. Ground application only. See label for other precautions/restrictions.</b>
halosulfuron @ 0.032 to 0.063 lb/A	Nutsedge, cocklebur. See label for tank mixes to broaden weed spectrum.	<b>Permit 75 WG</b> 0.67 oz/A for cocklebur. 1 to 1.33 oz/A for nutsedge. Add a nonionic surfactant or crop oil concentrate. May use two applications not to exceed 2.67 oz/A total rate.	Postemergence from corn spike through layby. 4- to 12-inch nutsedge 1- to 9-inch cocklebur	Ground application only. See label for mixtures and other precautions. Clean tank with ammonia.
nicosulfuron + rimsulfuron @ 0.023 + 0.012 lb/A	Annual grass and broadleaf weeds.	<b>Steadfast 75 DG</b> 0.75 oz/A. Add a crop oil concentrate.	Apply to small weeds.	Some hybrids are extremely sensitive to rimsulfuron. Consult with seed supplier for sensitivity rating prior to applying. Do not apply to corn treated with Counter or Counter 20 CR insecticides. See label for other precautions.

Crop, Situation, and Active Chemical Per Broadcast Acre	Weeds Controlled	Formulated Material Per Broadcast Acre	Time of Application	Method of Application and Precautions
<b>FIELD CORN</b>				
<b>Postmergence [cont.]</b>				
nicosulfuron/rimsulfuron/ atrazine @ 0.79 lb/A	Annual grass and broadleaf weeds.	<b>Steadfast ATZ 89.3 DG</b> 14 oz/A. Add a crop oil concentrate. or <b>Steadfast + Atrazine</b> 0.75 oz/A + 0.75 lb/A.	Apply to small weeds and before corn exceeds 12 inches. Apply to annual grasses less than 2 inches tall.	Some hybrids are extremely sensitive to rimsul- furon. Consult with seed supplier for sensitivity rat- ing prior to use. Do not apply to corn treated with Counter or Counter 20 CR insecticides. See label for other insecticide precautions.
paraquat @ 0.25 lb/A	Emerged annual grasses.	<b>Gramoxone Inteon 2 SL</b> 1.0 pt/A + surfactant (p. 3).	Apply when corn is at least 10 inches and weeds are 4 inches or less.	DIRECTED OR HOODED SPRAY ONLY. Avoid fine spray. Corn plants less than 10 inches may be injured and not recover.
paraquat + atrazine @ 0.25 + 0.5 to 1 lb/A	Same as above but better con- trol of broadleaf weeds.	<b>Gramoxone Inteon 2 SL + AAtrex</b> 1.0 pt/A + 0.67 to 1.25 lb/A 80W or 1 to 2 pt/A 4L. Add a surfactant (p. 3).	Apply when corn is at least 10 inches and weeds are 4 inches or less.	DIRECTED OR HOODED SPRAY ONLY. Avoid fine spray. Corn plants less than 10 inches may be injured and not recover.
mesotrione @ 0.094 lb/A	Annual broadleaf weeds.	<b>Callisto 4L</b> 3 oz/A. Add surfactant.	May be applied up to 30 inches or 8-leaf stage of corn.	Do not apply to corn treated with Counter or Lorsban insecticides. See label.
<b>FIELD CORN – PREHARVEST</b>				
carfentrazone @ 0.0312 lb/A	Morningglory desiccation.	<b>Aim 2 EC</b> 2.0 oz/A. Add 1% crop oil con- centrate.	7 days prior to harvest.	Good coverage is critical to Aim activity. 10 gpa is recommended.
sodium chlorate @ 4.5 to 6 lb/A	Desiccation of green vegeta- tion.	<b>Sodium Chlorate</b> 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.

Crop, Situation, and Active Chemical Per Broadcast Acre	Weeds Controlled	Formulated Material Per Broadcast Acre	Time of Application	Method of Application and Precautions
<b>HERBICIDE-TOLERANT CORNS – Check suitability of available hybrids with county agent.</b>				
glyphosate @ 0.75 to 1 lb/A	Most annual grass and broadleaf weeds and Johnsongrass.	<b>Glyphosate (4 lb/gal formulations)</b> 2 pt/A. See table on page 23 for specific glyphosate conversions and surfactants.	May be applied up to 30 inches or 8-leaf stage of corn.	<b>Apply only to Roundup Ready corn. Single in-crop applications not to exceed 1 lb/A and multiple in-crop applications not to exceed 2 lb/A total. See label for tank mixes.</b>
glyphosate + atrazine @ 0.75 to 1 lb/A + 1 lb/A	Same as above plus residual control of broadleaf weeds. Improved morningglory control.	<b>Glyphosate (4 lb/gal formulations) + AAtrex</b> 2 pt/A + 1 qt/A. See table on page 23 for specific glyphosate conversions and surfactants.	Prior to 12-inch corn.	<b>Apply only to Roundup Ready corn. Single in-crop applications not to exceed 1 lb/A and multiple in-crop applications not to exceed 2 lb/A total. See label for tank mixes.</b>
glyphosate + atrazine + rimsulfuron @ 0.75 to 1 lb/A + 1 lb/A + 0.016 lb/A	Most annual grass and broadleaf weeds. Improved residual control of annual grass.	<b>Glyphosate (4 lb/gal formulations) + AAtrex + Resolve Q</b> 2 pt/A + 2 pt/A + 1 oz/A. See table on page 23 for specific glyphosate conversions and surfactants.	Prior to 12-inch corn.	<b>Apply only to Roundup Ready corn. Single in-crop applications not to exceed 1 lb/A and multiple in-crop applications not to exceed 2 lb/A total. See label for tank mixes. Some hybrids are extremely sensitive to rimsulfuron. Consult with seed supplier for sensitivity rating prior to applying.</b>
glyphosate + mesotrione @ 0.75 to 1 lb/A + 0.094 lb/A	Annual grass and broadleaf weeds with residual activity.	<b>Glyphosate (4 lb/gal formulations) + Callisto 4L</b> 2 pt/A + 3 oz/A. See table on page 23 for specific glyphosate conversions and surfactants.	May be applied up to 30 inches or 8-leaf stage of corn.	<b>Apply only to Roundup Ready corn. Single in-crop applications not to exceed 1 lb/A and multiple in-crop applications not to exceed 2 lb/A total. See label for tank mixes. Do not apply to corn treated with Counter or Lorsban insecticides.</b>
glufosinate @ 0.4 lb/A	Most annual grass and broadleaf weeds.	<b>Ignite 280 SL</b> 22 oz/A.	May be applied to corn through the V5 growth stage.	Apply only to Liberty Link corn varieties.