

Cotton Weed Control

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Table 5.79 - Preplant Incorporated

Weed problem	Chemical rate per acre	Product per acre	Remarks and Precautions
Barnyardgrass, broadleaf signalgrass, carpetweed, crabgrass, fall panicum, Florida pusley, foxtails, goosegrass, johnsongrass seedlings, lambsquarters, pigweed, purslane, sandbur, Texas panicum, wild cane, shattercane	Pendimethalin 0.5-0.75 lb ai	Prowl 3.3EC 1.2-1.8 pt or Prowl H ₂ O 1.1-1.6 pt	Apply and incorporate 1-2 inches deep within 7 days after application. Follow label for proper soil incorporation procedures. Lower rate is safest to cotton.
Barnyardgrass, broadleaf signal- grass, carpetweed, crabgrass, fall panicum, Florida pusley, foxtails, goosegrass, johnsongrass seedlings, lambsquarters, pigweed, purslane, sandbur, Texas panicum, wild cane, shattercane	Trifluralin 0.5-0.75 lb ai	Treflan 4EC 1.0-1.5 pt and others such as Trilin	Incorporate within 24 hours after application. Follow label for proper soil incorporation procedures. Lower rate is safest to cotton.

Table 5.80 - Preplant Incorporated or Split Application

Weed problem	Chemical rate per acre	Product per acre	Remarks and Precautions
Barnyardgrass, broadleaf signal- grass, carpetweed, crabgrass, fall panicum, foxtails, goose grass, johnsongrass lambsquarters, seedlings, pigweed, purslane, prickly sida, spurred anoda, tropic croton, nutsedge suppression	Norflurazon 1.0-1.2 lb ai	Zorial 80DF 1.25-1.5 lb	See label for specific rates on various soils. Incorporate 2-3 inches deep. The full rate of Zorial may be incorporated or a half rate incorporated and a half rate applied preemergence. Rotate only to cotton, soybeans or peanuts within 16 months of application. Do not rotate to corn or vegetable crops within 16 months of application. Provides suppression of yellow and purple nutsedges. May be tank mixed with trifluralin or pendimethalin. On light, sandy soils, low in organic matter, use the lower rate.

Table 5.81 - Preemergence (Band Application)

Weed problem	Chemical rate per acre	Product per acre	Remarks and Precautions
Velvetleaf, spurred anoda, lambsquarters, and suppression of jimsonweed, spurge, prickly sida, common ragweed	Clomazone 0.5 lb ai	Command 3ME 21 oz	Command 3ME may be applied either banded at 7 oz/A (comparable to 21.0 oz/A broadcast) or broadcast at 21.0 oz/A. Use disulfoton or phorate organophosphate insecticides at 0.75 lb ai/A in furrow to protect against Command injury to cotton. Follow the Command label closely to prevent damage to desirable plants as a result of off-site movement. Observe buffer restrictions and do not apply within 1,500 feet of towns and housing developments, commercial fruit/nut or vegetable production, greenhouses or nurseries. Fluometuron is generally still needed for improved control of annual weeds including pigweed species, common ragweed, common lambsquarters and others but should be applied at low labeled rates.

Table 5.82 - Preemergence

Weed problem	Chemical rate per acre	Product per acre	Remarks and Precautions
Fair control of cocklebur, morningglories, jimsonweed, sicklepod, and tropic croton; good control of lambsquarters, pigweed species, prickly sida, and ragweed	Fluometuron 1.0-2.0 lb ai	Cotoran 4L 1.0-2.0 qt or Cotoran 80DF 1.25-2.5 lb	Apply to soil surface after planting, before crop and weeds emerge. On light, sandy soils, low in organic matter, use no more than 1.0 lb ai/A. Not labeled for use on sand or loamy sand soils. May be tank mixed with Zorial. Plant only cotton within 6 months of last application. See remarks for Zorial on previous page
Annual grasses, yellow nutsedge suppression	s-Metolachlor 0.71-0.95 lb ai	Dual Magnum 7.62EC 0.75-1.0 pt Dual II Magnum 7.64EC 0.75-1.0 pt	Apply to soil surface at planting or after planting, but before weeds or crop emerge. Do not incorporate. Crop injury has been observed, especially when heavy rainfall is received shortly after planting or shortly after cotton emergence. Rates should be kept at the minimum for various soil types. Do not apply to sands or loamy sand soils. May be most useful in no-till cotton and for suppression of yellow nutsedge.
Controls most annual grasses and broadleaf weeds in conventional and reduced tillage production systems. Control or temporary suppression of many weeds including hemp dogbane, yellow nutsedge, and rhizome johnsongrass. Provides residual control of large crabgrass, goosegrass, fall panicum, foxtails, and the suppression of yellow nutsedge.	Glyphosate 0.703-0.984 lb ae/A + s-Metolachlor 0.938-1.31 lb ai/A	Sequence 2.5-3.5 pt	Apply to soil surface at planting or after planting, but before crop emerges. Do not incorporate. Crop injury has been observed, especially when heavy rainfall is received shortly after planting or shortly after cotton emergence. Do not exceed 2.5 pt/A of Sequence on sandy-loam soils or 3.5 pt/A of Sequence on medium- or fine-textured soils. Do not apply to sands or loamy-sand soils. May be useful in no-till cotton and for suppression of yellow nutsedge.
Barnyardgrass, broadleaf signalgrass, carpetweed, crabgrass, fall panicum, Florida pusley, foxtails, goosegrass, johnsongrass seedlings, lambsquarters, pigweed, purslane, sandbur, Texas panicum, wild cane, shattercane	Pendimethalin 0.5-0.75 lb ai	Prowl 3.3EC 1.2-1.8 pt or Prowl H ₂ O 1.1-1.6 pt	Apply at planting or up to 2 days following planting to a firm seedbed.
Redroot pigweed, smooth pigweed, prickly sida, spotted spurge, spurred anoda, velvetleaf, and suppresses jimsonweed, ladythumb smartweed, Pennsylvania smart and several morning glory species	Pyriithiobac 0.031-0.042 lb ai	Staple LX 3.2 lb ai/gal 1.25-1.7 fl oz	Use the higher rate for harder to control weeds but do not exceed 0.8 oz/A and do not use on soils with less than 0.5% organic matter. Staple LX may be mixed with several other preemergence herbicides (Cotoran, Direx, Karmex, or Cotton Pro) taking care not to exceed recommended rates of these herbicides for soil types. Do not apply more than 2.4 oz Staple LX per acre per year.
Early control of Palmer amaranth and suppression of yellow nutsedge	Fomesafen 0.25-0.31 lb ai	Reflex 2E 1.0-1.25 pt	Can mix with Cotoran, Direx, Prowl, Staple. Apply only to coarse textured soils.

Table 5.83 - Postemergence Over-the-top: Annual Grasses

Weed problem	Chemical rate per acre	Product per acre	Remarks and Precautions
Barnyardgrass, broadleaf signalgrass, fall panicum, foxtails, johnsongrass seedlings, crabgrass, shattercane, Texas panicum, volunteer corn	Clethodim 0.094-0.125 lb ai + (see remarks)	Select 2EC 6.0-8.0 oz or Select Max 0.97EC 12.0-16.0 oz + (see remarks)	Apply to actively growing grasses at the rate and size range indicated on the label for the individual grass species. Apply with 10.0-20.0 gal of water/A and 30-60 psi. Do not use flood-type nozzles. Always add 2.0 pt/A crop oil concentrate to Select. For Select Max, add 0.25% nonionic surfactant, 1% crop oil concentrate, or 1% methylated seed oil. May be weak on goosegrass.
Barnyardgrass, broadleaf signalgrass, fall panicum, foxtails, johnsongrass, crabgrass, shattercane, Texas panicum, and volunteer corn	Sethoxydim 0.19-0.28 lb ai + crop oil concentrate	Poast 1.5EC 1.0-1.5 pt or Poast Plus 1.5-2.25 pt + crop oil concentrate 2.0 pt	Apply to actively growing grasses at the rate and size range indicated on the label for the individual grass species with 10.0-20.0 gal of water/A and 40 psi. Do not use flood type nozzles. Always add 2.0 pt/A crop oil concentrate.
Barnyardgrass, broadleaf signalgrass, fall panicum, foxtails, johnsongrass seedlings, Texas panicum, goosegrass, shattercane and volunteer corn	Fluazifop-P 0.19 lb ai + crop oil concentrate or nonionic surfactant	Fusilade DX 2EC 12.0 oz + crop oil concentrate 0.5 - 1.0% v/v or nonionic surfactant 0.25% v/v	Apply to actively growing grasses at the rate and growth stage indicated on the label. Apply with a minimum of 10 gal of water/A and 30-60 psi. Do not use flood nozzles. Add 0.5-1.0% v/v crop oil concentrate or 0.25% v/v nonionic surfactant to the spray mixture.
Barnyardgrass, broadleaf, signalgrass, crabgrass, fall panicum, field sandbur, seedling johnsongrass, shattercane, Texas panicum, volunteer small grains	Fluazifop-P plus fenoxaprop-P 0.12 - 0.16 lb ai + crop oil concentrate or nonionic surfactant	Fusion 2EC 8.0-10.0 oz + crop oil concentrate 0.5 - 1.0% v/v or nonionic surfactant 0.25 - 0.5% v/v	Apply to actively growing grasses at the rate and growth stage listed on the label in 5.0-20 gal of water/A at 30-60 psi. Do not apply Fusion with recirculating sprayers, rope-wick applicators, controlled droplet applicators, or any similar devices. Add 0.5% -1.0% v/v crop oil concentrate or 0.25%-0.5% v/v nonionic surfactant to the spray mixture.
Barnyardgrass, broadleaf signalgrass, fall panicum, field sandbur, seedling johnsongrass, shattercane, Texas panicum	Quizalofop 0.034-0.055 lb ai + crop oil concentrate or nonionic surfactant	Assure II 0.88EC/Assure II 5.0-8.0 oz + crop oil concentrate 1% v/v or nonionic surfactant 0.25% v/v	Apply to actively growing grasses at the rate and growth stage listed on the label. Apply with a minimum of 10 gal water/A and 25-60 psi. May be weak on crabgrass.

Table 5.84 - Postemergence Over-the-top: Perennial Grasses

Weed problem	Chemical rate per acre	Product per acre	Remarks and Precautions
Bermudagrass (wiregrass)	Clethodim 0.125-0.25 lb ai + crop oil concentrate +	Select 2EC 8.0-16.0 oz or Select Max 0.97EC 16.0-32.0 oz +	Apply to actively growing bermudagrass at the rate and stage indicated on the label. Apply the first application to bermudagrass with 3- to 6-inch runners. Apply regrowth treatments to bermudagrass with 3- to 6-inch runners. Always add 2.0 pt /A crop oil concentrate to Select. For Select Max, add 0.25% nonionic surfactant, 1% crop oil concentrate, or 1% methylated seed oil.
	(sequential treatment on regrowth) Clethodim 0.125-0.25 lb ai + crop oil concentrate	(see remarks) + (sequential treatment on regrowth) Select 2EC 8.0-16.0 oz or Select Max 0.97EC 16.0-32.0 oz + (see remarks)	
	Fluazifop-P + fenoxaprop-ethyl 0.19 lb ai + crop oil concentrate or nonionic surfactant +	Fusion 2EC 12.0 oz + crop oil concentrate 0.5-1.0% v/v or nonionic surfactant 0.25-0.5% v/v +	Make first application to 4- to 8-inch runners. Apply a second treatment to 4- to 8-inch runners if regrowth occurs. Use a minimum of 15.0 gal/A spray solution. Add 0.5%-1.0% v/v crop oil concentrate or 0.25%-0.5% v/v nonionic surfactant to the spray mixture.
	(sequential treatment on regrowth) Fluazifop P + fenoxaprop-ethyl 0.12 lb ai + crop oil concentrate or nonionic surfactant	(sequential treatment on regrowth) Fusion 2EC 8.0 oz + crop oil concentrate 0.5-1.0% v/v or nonionic surfactant 0.25-0.5% v/v	
	Sethoxydim 0.28 lb ai + crop oil concentrate +	Poast 1.5 pt or Poast Plus 2.25 pt +	Apply to actively growing grass. Apply first treatment to bermudagrass plants with stolons (runners) less than 6 inches in length. Apply regrowth treatments to bermudagrass plants with runners less than 4 inches in length. Add 2.0 pt/A crop oil concentrate.
	(sequential treatment on regrowth) Sethoxydim 0.19 lb ai + crop oil concentrate	crop oil concentrate 2.0 pt/A + (sequential treatment on regrowth) Poast 1.0 pt or Poast Plus 1.5 pt + crop oil concentrate 2.0 pt	

Table 5.84 - Postemergence Over-the-top: Perennial Grasses (cont.)

Weed problem	Chemical rate per acre	Product per acre	Remarks and Precautions
Bermudagrass (wiregrass), Rhizome johnsongrass	Fluazifop-P 0.19 lb ai + crop oil concentrate or nonionic surfactant + (sequential treatment on regrowth)	Fusilade DX 2EC 12.0 oz + crop oil concentrate 0.5-1.0% v/v or nonionic surfactant 0.25-0.5% v/v +	Apply to actively growing johnsongrass 8-18 inches high. Apply regrowth treatments when 6-12 inches high. Add 0.5%-1.0% v/v crop oil concentrate or 0.25%-0.5% v/v nonionic surfactant to the spray mixture. OR Apply to actively growing bermudagrass with 4- to 8-inch runners. Apply regrowth treatments to bermudagrass with a runner length of 4-8 inches. Add 0.5%-1.0% v/v crop oil concentrate or 0.25%-0.5% v/v to the spray mixture.
	Fluazifop-P 0.125 lb ai + crop oil concentrate or nonionic surfactant	(sequential treatment on regrowth) Fusilade DX 2EC 8.0 oz + crop oil concentrate 0.5-1.0% v/v or nonionic surfactant 0.25-0.5% v/v	
	Quizalofop 0.07 lb ai + crop oil concentrate or nonionic surfactant + (sequential treatment on regrowth)	Assure II 0.88EC/Assure II 10.0 oz + crop oil concentrate 1.0% v/v or nonionic surfactant 0.25% v/v +	Apply to actively growing johnsongrass when 10 to 24 inches tall or bermudagrass up to 6-inch runners. Apply regrowth treatments to 6 to 10 inch johnsongrass, or bermudagrass with 3- to 6-inch runners. Add 0.5-1.0% v/v crop oil concentrate or 0.25-0.5% v/v nonionic surfactant to the spray mixture.
	Quizalofop 0.05 lb ai + crop oil concentrate or nonionic surfactant	(sequential treatment on regrowth) Assure II 0.88EC 7.0 oz + crop oil concentrate 1.0 % v/v or nonionic surfactant 0.25% v/v	

Table 5.84 - Postemergence Over-the-top: Perennial Grasses (cont.)

Weed problem	Chemical rate per acre	Product per acre	Remarks and Precautions
Rhizome johnsongrass	Clethodim 0.125-0.25 lb ai + crop oil concentrate + (sequential treatment on regrowth) Clethodim 0.094-0.16 lb ai + crop oil concentrate	Select 2EC 8.0-16.0 oz or Select Max 0.97EC 16.0-32.0 oz + (see remarks) + (sequential treatment on regrowth) Select 2EC 6.0-8.0 oz or Select Max 0.97EC 16.0-32.0 oz + (see remarks)	Apply to actively growing johnson- grass at the rate and stage indicated on the label. Apply the first application to johnsongrass 12-24 inches high. Apply regrowth treatments to 6- to 18-inch johnsongrass. Always add 2.0 pt crop oil concentrate to Select. For Select Max, add 0.25% nonionic surfactant, 1% crop oil concentrate, or 1% methylated seed oil.
	Fluazifop-P + fenoxaprop-ethyl 0.16-0.19 lb ai + crop oil concentrate or nonionic surfactant + sequential treatment on regrowth Fluazifop P + fenoxaprop-ethyl 0.12 lb ai + crop oil concentrate or nonionic surfactant	Fusion 2EC 10.0-12.0 oz + crop oil concentrate 0.5-1.0% v/v or nonionic surfactant 0.25-0.5% v/v + (sequential treatment on regrowth) Fusion 2EC 8.0 oz + crop oil concentrate 0.5-1.0% v/v or nonionic surfactant 0.25-0.5% v/v	Make first application to actively grow- ing johnsongrass before the boot stage and a second application when regrowth is 4 to 6 inches tall. Add 0.5%-1.0% v/v crop oil concentrate or 0.25%-0.5% v/v nonionic surfactant to the spray mixture.
	Sethoxydim 0.28 lb ai + crop oil concentrate + (sequential treatment on regrowth) Sethoxydim 0.19 lb ai + crop oil concentrate	Poast 1.5 pt or Poast Plus 2.25 pt + crop oil concentrate 2.0 pt/A + (sequential treatment on regrowth) Poast 1.0 pt or Poast Plus 1.5 pt + crop oil concentrate 2.0 pt	Apply to actively growing johnson- grass. Apply first treatment to john- songrass 15 to 20 inches high. Apply regrowth treatments to 6- to 10-inch johnsongrass.

Table 5.85 - Early Postemergence: Over-the-top

Weed problem	Chemical rate per acre	Product per acre	Remarks and Precautions
Controls most annual grasses and broadleaf weeds in conventional and reduced tillage production systems. Control or temporary suppression of many perennial weeds including bermudagrass, hemp dogbane, horsenettle, nutsedges, rhizome johnsongrass, and trumpetcreeper.	Glyphosate 0.75-1.0 lb ai	Numerous brands and formulations	For use only on cotton varieties designated Roundup Ready or Roundup Ready Flex. Some brands of glyphosate are not registered for use on these varieties (see labels). For Roundup Ready cotton, glyphosate may be applied over-the-top from emergence to the four true-leaf stage. For Roundup Ready Flex cotton, glyphosate may be applied throughout the season over-the-top although there are maximum allowable rates set for various stages of cotton development (see label). Separate all over-the-top applications by at least 10 days. Glyphosate will be most effective as a component of a program that includes the use of standard preplant incorporated, preemergence, and postemergence herbicides. Adjuvant recommendations vary by glyphosate products. See labels for specification. Observe all labels regarding seasonal maximums and take extreme caution to avoid drift to adjacent vegetation.
Controls many annual broadleaf weeds and suppresses annual grasses in conventional and reduced tillage production systems. Suppression may be expected of pigweed spp. and most grasses after just a single glufosinate application.	Glufosinate 0.42-0.71 lb ai/A	Ignite 280 23 to 39 oz	For use only on cotton varieties designated Liberty Link. Apply postemergence over-the-top to cotton at emergence until the early-bloom stage of cotton development. Most weeds require an initial Ignite 280 application of no less than 23 oz, and some perennial and biennial weeds may require an initial rate of 39 oz. Ignite 280 can be applied up to a maximum of 3 applications at 29 oz each or one application of up to 43 oz/A followed by a single application of 23 oz/A with a seasonal maximum of 87 oz. The rotational restriction for small grains is 70 days. Over-the-top postemergence applications should not be made 70 days prior to harvest. Ignite may be tank mixed with Dual or Staple herbicides for postemergence over-the-top applications to enhance weed control and/or provide residual control. These tank-mix options can be beneficial in filling the pigweed and/or grass voids left by Ignite. If other pesticide products that are labeled for use in cotton and are desired to be tank mixed with Ignite, a compatibility test must be conducted to confirm tank-mix compatibility with Ignite. Extreme care must be used to avoid drift to adjacent crops or other desirable vegetation. Do not graze or feed treated cotton. See label.

Table 5.85 - Early Postemergence: Over-the-top (cont.)

Weed problem	Chemical rate per acre	Product per acre	Remarks and Precautions
Large crabgrass, goosegrass, fall panicum, foxtails and suppression of yellow nutsedge	s-Metolachlor 0.96-1.25 lb ai	Dual Magnum 1.0-1.3 pt	Apply over-the-top postemergence or directed to the soil surface to cotton at least 3 in tall. Applications should be prior to weed emergence or after clean cultivation since Dual Magnum does not control emerged weeds. At least 1/2 inch of rainfall is required within 10 days after application. If rainfall does not occur, a shallow, uniform incorporation will improve control. Over-the-top postemergence applications should be made not later than 100 days before harvest and directed postemergence applications may be made not later than 80 days before harvest. Tank mixtures with Touchdown or Roundup can be applied to Roundup Ready cotton only. Apply Dual Magnum as a tank mixture with Touchdown or Roundup in water postemergence directed according to Touchdown or Roundup labels for control of emerged weeds and for residual preemergence control of weeds listed on the Dual Magnum label. Do not add additional spray adjuvants, surfactants, fertilizers, or their additives to these tank mixtures if applied over-the-top, or unacceptable cotton injury may occur. Follow instructions on the Dual + glyphosate labels for rates, application methods, and application timing restrictions.

Table 5.85 - Early Postemergence: Over-the-top (cont.)

Weed problem	Chemical rate per acre	Product per acre	Remarks and Precautions
Controls most annual grasses and broadleaf weeds in conventional and reduced tillage production systems. Control or temporary suppression of many weeds including hemp dogbane, yellow nutsedge, and rhizome johnsongrass. Provides residual control of large crabgrass, goosegrass, fall panicum, foxtails, and the suppression of yellow nutsedge.	glyphosate 0.703-0.984 lb ae/A s-Metolachlor 0.938-1.31 lb ai/A	Sequence 2.5-3.5 pt	For use only on cotton varieties designated Roundup Ready. Apply postemergence over-the-top to cotton that is 3 inches tall to the four-leaf stage of cotton development. Do not apply later or severe crop injury will occur, including yield loss. Do not exceed 2.5 pt/A of Sequence per application or 3.5 pt/A of Sequence per growing season. If tank-mixing or applications follow other s- Metolachlor products, do not exceed 1.9 lb s-Metolachlor ai/A per season on coarse-textured soils. Over-the-top postemergence applications should not be made later than 100 days before harvest. At least 1/2 inch of rainfall is required within 10 days after application to activate the s- Metolachlor. Do not add additional spray adjuvants, surfactants, or fertilizers to Sequence when applied postemergence over-the-top, or unacceptable cotton injury may occur. Extreme care must be used to avoid drift to adjacent crops or other desirable vegetation. Do not graze or feed treated cotton. See label.
Cocklebur and suppression of yellow nutsedge	MSMA 0.75-1.0 lb ai	MSMA Plus 1.0-1.25 pt MSMA 6 Plus 1.0-1.25 pt MSMA 6.6 Plus 1.0-1.25 pt Weed-Hoe 108 1.0-1.25 pt	May be applied over-the-top of crop and weeds when cotton is 3 to 6 inches tall. Crop response may include stunting, stem reddening and delay of maturity. Check label for surfactant recommendations.
Cocklebur, jimsonweed, pigweed	Fluometuron 1.0 ai	Cotoran 4L 1.0 qt or Cotoran 80DF 1.25 lb	May be applied over-the-top of crop and weeds when cotton is 3 to 6 inches tall. For use only where crop loss due to weeds is likely. Moderate to severe crop injury may occur and may include maturity delay and yield reduction.
Pigweed species, Pennsylvania smartweed, spurred anoda, velvetleaf, jimsonweed. May be weak against tall morningglory common cocklebur and prickly sida	Pyrithiobac 0.062 lb ai + 0.25% nonionic surfactant	Staple LX 2.5 oz + nonionic surfactant at 1 qt/100.0 gal	Apply 2.5 oz/A Staple with 0.25% v/v (1 qt/100.0 gal) nonionic surfactant to control small annual broadleaf weeds listed. Staple may be applied to postemergence broadcast over-the-top of cotton, in a band over-the-top of cotton, or post-directed to cotton but over-the-top of weeds. Make applications to small, actively growing weeds after cotton has a true leaf. Cotton may be injured from Staple applied under cool, wet conditions. For best control, rainfall should not occur for 4 hours. See label.

Table 5.85 - Early Postemergence: Over-the-top (cont.)

Weed problem	Chemical rate per acre	Product per acre	Remarks and Precautions
Pigweed species, hemp sesbania, morning-glory spp. (except tall morningglory), prickly sida, spurred anoda, and velvetleaf	Pyrithiobac 0.031 lb ai + nonionic surfactant 0.25% v/v	Staple LX 1.25 oz (1 packet/10/A) + nonionic surfactant at 1 qt/100.0 gal	Apply with glyphosate on Roundup Ready and Roundup Ready Flex cotton. Apply Staple with 0.25% v/v (1 qt/100 gal) nonionic surfactant to control small annual broadleaf weeds. Staple may be applied postemergence broadcast over-the-top of cotton, in a band over- the-top of cotton, or post directed to cotton but over-the-top of weeds. Make applications to small, actively growing weeds after cotton has a true leaf. Cotton may be injured from Staple applied under cool, wet conditions. For best control, rainfall should not occur for 4 hours. See labels. Also note size restrictions for cotton when glyphosate is used and that not all brands of glyphosate are registered for overtop of cotton.
Bristly starbur, common cocklebur, coffee senna, volunteer corn (non-IT/IR), Florida beggarweed, hemp sesbania, common lambsquarters, morning-glory spp., common ragweed, redweed, sicklepod, velvetleaf, volunteer soybean (non-STs), wild poinsettia, yellow nutsedge.	Trifloxysulfuron-sodium 0.0047 - 0.0070 lb ai/A + 0.25% nonionic surfactant	Envoke 0.10 - 0.15 oz + nonionic surfactant at 1 qt/100.0 gal	Apply 0.10 – 0.15 oz/A Envoke with 0.25% v/v (1 qt/100.0 gal) nonionic surfactant to control small annual broadleaf weeds listed. Envoke may be applied postemergence broadcast over-the-top of cotton, or post-directed to cotton but over-the-top of weeds. Make applications to small, actively growing weeds after cotton has a minimum of 5 true leaves. Cotton may be injured from Envoke applied under cool, wet conditions and if cotton is less than in the 5-leaf stage of growth. For best control, rainfall should not occur for 3 hours. The higher rates of Envoke may be required to adequately control yellow nutsedge and velvetleaf. Envoke tank mixed with glyphosate on Roundup Ready cotton can cause injury by way of boll loss, delayed maturity, and/or loss of yield. Sequential Envoke applications must be 14 days apart.
Postemergence overtop of cotton with at least 5 true leaves. Compared to Envoke alone, mix is better on jimsonweed and spurred anoda. Compared to Staple alone, mixture is better on common ragweed, common lambsquarters, tall morningglory, and sicklepod.	Trifloxysulfuron 0.0047 lb/A + Pyrithiobac at 0.032 to 0.048 lb/A + nonionic surfactant at 0.25% v/v	Envoke 75 DG at 0.1 oz/A + Staple LX 3.2 lb/gal at 1.3 to 1.9 fl oz + NIS at 0.25	Use a minimum of 10 gal water/A and apply to cotton with at least 5 true leaves. Occasional yellowing of cotton leaves can occur but yields are not affected.

Table 5.86 - Early Postemergence Directed: Cotton 3-6 Inches Tall

Weed problem	Chemical rate per acre	Product per acre	Remarks and Precautions
Cocklebur, yellow nutsedge, purple nutsedge	MSMA 2.0 lb ai	Various brands and formulations 2.66 pt MSMA (6.0 lb/gal formulations)	Apply as a directed spray to cotton at least 3 inches tall. Do not apply after first blooms appear. Refer to the product label to determine if surfactant should be added. Two applications/season may be made. May be tank mixed with fluometuron.
Cocklebur, jimsonweed, lambsquarters, morning-glory, pigweed, ragweed, tropic croton	Fluometuron 1.0-2.0 lb ai + MSMA 2.0 lb ai	Cotoran 4L 1.0-2.0 qt or Cotoran 85DF 1.2-2.4 lb + MSMA 2.66 pt (6.0 lb/gal formulations)	Apply as a directed spray to cotton at least 3 inches tall. Best results are obtained if applied to weeds 2 inches tall or less. Apply with a nonionic surfactant. ¹

¹Do not apply tank mixture with MSMA after first bloom.

Table 5.87 - Late Postemergence Directed: Cotton 6-8 Inches or Larger

Weed problem	Chemical rate per acre	Product per acre	Remarks and Precautions
Cocklebur, yellow nutsedge, purple nutsedge	MSMA 2.0 lb ai	Various brands and formulations 2.66 pt MSMA (6.0 lb/gal formulations)	Apply as a directed spray. Do not apply after first blooms appear. Refer to the product label to determine if a surfactant should be added. Two applications/season may be made. Primarily controls nutsedge and cocklebur. May be tank mixed with fluometuron, lactofen, or oxyfluorfen to broaden the control spectrum.
Cocklebur, ragweed, jimsonweed, lambsquarters, pigweed, prickly sida, smartweed, tropic croton, morningglory (suppression)	Fluometuron 1.0-2.0 lb ai + MSMA* 2.0 lb ai	Cotoran 4L 1.0-2.0 qt or Cotoran 80DF 1.2-2.4 lb + MSMA (6.0 lb/gal 2.66 pt formulations)	Apply as directed spray. Use 1.0 to 1.5 lb ai/A fluometuron for weeds up to 3 inches tall. Apply with 4.0 pt/100 gal nonionic surfactant. ¹
Ragweed, lambsquarters, pigweed, cocklebur, morning glory (suppression)	Linuron 0.5-1.5 lb ai	Linex 1.0 to 3.0 pt	Apply as a directed spray, at 1 pint per acre when cotton is at least 6 inches tall and up to 1 to 1 1/2 pints per acre when cotton is at least 8 inches tall and emerged weeds do not exceed 2 inches in height. Add 1 pint surfactant for each 25 gallons spray mixture. If needed, a second application of same rate may be made one week or later after initial treatment. Alternatively, after cotton is 20 inches tall, make a single application of 2 to 3 pints per acre following last cultivation; if emerged weeds are present, add surfactant as directed. Do not plant rotational crops other than corn, soybeans or potatoes within 4 months after application.

¹Do not apply tank mixture with MSMA after first bloom.

Table 5.87 - Late Postemergence Directed: Cotton 6-8 Inches or Larger (cont.)

Weed problem	Chemical rate per acre	Product per acre	Remarks and Precautions
Cocklebur, ragweed, jimsonweed, lambsquarters pigweed, prickly sida, smartweed, tropic croton, velvetleaf, morningglory (suppression)	Oxyfluofen 0.25-0.5 lb ai + MSMA* 2.0 lb ai	Goal 2.0E 1.0-2.0 pt + MSMA (6 lb/gal 2.66 pt formulations)	Apply to cotton at least 6 inches tall (preferably 8- to 10-inches tall). Apply with nonionic surfactant (2.0 pt/100 gal spray mix). May make two applications/season. Apply only with precision directed spray equipment. Do not exceed 0.5 lb ai/A oxyfluofen/year. ¹
Cocklebur, ragweed, jimsonweed, lambsquarters, pigweed, prickly sida, smartweed, tropic croton, velvetleaf	Lactofen 0.2 lb ai + MSMA* 2.0 lb ai	Cobra 2EC1 2.5 oz + MSMA (6 lb/gal 2.66 pt formulations)	Apply to cotton at least 6 inches tall. Apply with nonionic surfactant (2.0 pt/100 gal spray mix) or crop oil concentrate (0.5 to 1.0 pt/A). Apply only with precision -directed spray equipment. Make only one application of Cobra/ season. ¹
Cocklebur, ragweed, jimsonweed, lambquarters, pigweed, prickly sida, smartweed, tropic croton, morningglory (suppression)	Prometryn 0.5-0.65 lb ai + MSMA* 2.0 lb ai	Caparol 4L 1.0-1.3 pt or Cotton-Pro 4L 1.0-1.3 pt + MSMA (6.0 lb/gal 2.66 pt formulations)	Apply to cotton at least 6 inches tall. Apply only with precision -directed spray equipment. ¹
Bristly starbur, common cocklebur, coffee senna, volunteer corn (non-IT/IR), Florida beggarweed, hemp sesbania, johnsongrass (seedling), common lambsquarters, morningglory spp., smooth pigweed, redroot pigweed, common ragweed, redweed, sicklepod, velvetleaf, volunteer soybean (non-STS), wild poinsettia, yellow nutsedge	Prometryn 0.790-1.185 lb ai/A + Trifloxysulfuron-sodium 0.0070-0.0105 lb ai/A + 0.25% nonionic surfactant	Suprend 1.0 - 1.5 lb	Apply 1.0 to 1.5 lb/A Suprend to control small annual broadleaf weeds listed and provide some residual control of these weeds. Suprend must be applied post-directed to cotton but over-the-top of weeds. Apply to cotton at least 6 inches tall and only with precision-directed spray equipment. Sequential Suprend applications must be at least 14 days apart. Do not exceed 2.7 lbs/A of Suprend per growing season from all applications. Do not exceed a total of 0.0188 lb ai/A of trifloxysulfuron-sodium per growing season resulting from all applications of Suprend or Envoke. Do not exceed a total of 5.15 lb ai/A of prometryn per growing season resulting from all applications of Suprend, Caparol 4L, or Cotton-Pro 4L. If these totals for trifloxysulfuron-sodium and /or prometryn are exceeded, injury to cotton may result in addition to alterations in crop rotation restriction intervals. With Suprend's limited activity on grass weeds, MSMA may be tank mixed with Suprend to improve the control of the grasses.
Cocklebur, jimsonweed, lambsquarters, morningglory, pigweed, ragweed, sicklepod	Dimethipin 0.23-0.54 lb ai + MSMA* 2.0 lb ai + crop oil concentrate	Harvade 5F 6.0-14.0 oz + MSMA 2.66 pt (6.0 lb/gal formulations) + 1 pt crop oil concentrate	Apply as a directed spray to cotton at least 10 inches tall for control of weeds less than 4 inches tall. Do not apply more than 14 oz/A per year for combined post directed and defoliation applications. ¹ Apply with 1pt/A crop oil concentrate.

¹Do not apply tank mixture with MSMA after first bloom.

Table 5.88 - Late Postmergence Directed: Cotton at Least 12 Inches Tall

Weed problem	Chemical rate per acre	Product per acre	Remarks and Precautions
Cocklebur, jimsonweed, lambsquarters, morning-glory, pigweed, ragweed, tropic croton	Fluometuron 1.0 lb ai	Cotoran 4L 1.0 qt or Cotoran 85DF 1.2 lb	Apply as a directed spray. Apply with a nonionic surfactant at 2.0 qt/100 gal spray solution. Do not apply within 60 days of harvest. Do not plant to rotation crops within 6 months of the last fluometuron application.

Table 5.89 - Late Postmergence Directed: Cotton at Least 16 Inches Tall

Weed problem	Chemical rate per acre	Product per acre	Remarks and Precautions
Lambsquarters, morning-glory species, nightshade species, pigweed species, velvetleaf, spurred anoda, purslane, hemp sesbania, prostrate spurge, and Pennsylvania smartweed	Carfentrazone 0.016-0.025 lb ai	Aim EC 1.0-1.6 oz	Aim may be applied lay-by in tank mixtures to cotton that is 16 inches in height or taller with sufficient bark development and height differential between bottom crop leaves and the soil. Direct spray to avoid contact with green stem tissue or foliage while achieving maximum coverage of broadleaf weeds. Always use crop oil concentrate at 1% v/v (1 gallon per 100 gallons of spray). Do not apply more than 3.2 oz of Aim total per acre for post directed and lay-by applications. For best control, apply to weeds up to 4 inches tall. When applied with glyphosate or MSMA, the combinations will control larger morningglories, annual grasses, and yellow nutsedge. See directions and precautions on Aim label relative to potential cotton injury.
Lambsquarters, morning-glory species, nightshade species, pigweed species, velvetleaf, spurred anoda, purslane, hemp sesbania, prostrate spurge, and Pennsylvania smartweed	Flumioxazin 0.064 lb ai	Valor SX 2.0 oz	Valor should only be applied to cotton that is 16 inches in height or taller with sufficient bark development and height differential between bottom crop leaves and the soil. Avoid contact with green stem tissue or foliage. Use an approved nonionic surfactant at 1 qt./100 gal spray solution. Do not add crop oil, methylated seed oil, or organosilicone adjuvants to solution. When applied with MSMA, the combination will control larger morningglories, annual grasses, and yellow nutsedge. Follow label sprayer-clearout directions closely after applying Valor.

Table 5.89 - Late Postmergence Directed: Cotton at Least 16 Inches Tall (cont.)

Weed problem	Chemical rate per acre	Product per acre	Remarks and Precautions
Common cocklebur, common dayflower, dogfennel, Florida beggarweed, Florida pusley, hemp sesbania, common lambsquarters, annual morning-glory spp., pigweed spp., prickly sida, purslane, common ragweed, redweed, sicklepod, smartweed, velvetleaf, and most annual grasses	Linuron 0.40-0.50 lb ai/A Diuron 0.40-0.50 lb ai/A	Layby Pro 1.6-2.0 pt	Apply 1.6 to 2.0 pt/A Layby Pro to control small annual broadleaf and grass weeds listed that are up to 4 inches tall; Layby Pro will also provide residual control of these susceptible weeds following the application. Layby Pro must be applied post-directed to cotton but over-the-top of weeds. Apply to cotton at least 16 inches tall and only with precision- directed spray equipment. The use of a nonionic surfactant at 2.0 qt/100 gal or a crop oil concentrate at 1gal/ 100 gal is recommended for the control of emerged weeds. Layby Pro can be tank mixed with Aim or MSMA to enhance the control of emerged weeds. Do not exceed the following Layby Pro rates: 1.6 pt/A for coarse soils and 2.0 pts/A on medium soils. Do not use Layby Pro on sand or loamy-sand soils, on soils with less than 1% organic matter, or within 76 days of harvest. Only cotton, corn, and grain sorghum can be planted the spring following the Layby Pro post-directed application. All other crops cannot be planted in the treated area within 1 year after the last Layby Pro application, or severe injury to subsequent crops may occur. See label.

Table 5.90 - Relative Effectiveness of Herbicides for Grass Weed Control in Cotton¹

	Goosegrass	Broadleaf signalgrass	Crabgrass	Fall panicum	Foxtails	Johnsongrass (seedling)	Johnsongrass (rhizome)	Texas panicum	Purple & Yellow nutseidge	Shattercane	Bermudagrass
<i>Preplant Incorporated</i>											
Prowl	G	G	E	G	E	G	P	G	N	G	P
Treflan	G	G	E	G	E	G	P	G	N	G	P
Zorial	F-G	G	E	G	E	G	P	F	F	G	P
<i>Preemergence</i>											
Cotoran	F-G	P	F-G	F	G	P	P	P	P	P	P
Dual	F-G	P-F	F-G	F-G	F-G	P	N	P	P-F	P	N
Sequence	F-G	P-F	F-G	F-G	F-G	P	N	P	P-F	P	N
Zorial	G	G	E	G	E	G	P	F	P-F	G	P-F
<i>Postemergence</i>											
Assure II/Assure II	E	E	F	E	E	E	E	E	N	E	G
Caparol/Cotton-Pro	P	P	P	P	P	P	P	P	P	P	P
Cobra	P	P	P	P	P	P	P	P	P	P	P
Cotoran	P	P	P	P	P	P	P	P	P	P	P
Dual	N	N	N	N	N	N	N	N	P-F	N	N
Envoke	P	P	P	P	P	P	N	P	P-G	P	N
Fusilade	E	G-E	G	E	E	E	G-E	G	N	E	G-E
Fusion	E	E	G	E	E	E	G	G	N	E	G
Goal	G	G	G	G	G	P	P	P	F-G	P	P
Harvade	P	P	P	P	P	P	P	P	P-F	P	P
Ignite	G	G	G	G	G	G	P-G	G	P-G	F	P
Layby Pro	G-E	G-E	G-E	G-E	G-E	P	P	G-E	N	P	N
Linex	P	P	P	P	P	P	P	P	N	P	N
MSMA/DSMA	G	G	G	G	G	G	F	P-F	F-G	G	P
Poast	E	E	G	E	E	E	G	E	N	E	F-G
Glyphosate	E	E	E	E	E	E	G	E	F-G	E	F
Select	F	E	G	E	E	E	G	E	N	E	G
Sequence	E	E	E	E	E	E	G	E	F-G	E	P-F
Staple	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-F	N-P	N-P
Suprend	P	P	P	P	P	F	P	P	P-G	P	P

¹E (Excellent) = 90 to 100 percent control, G (Good) = 80 to 90 percent control, F (Fair) = 60 to 80 percent control, P (Poor) = 20 to 60 percent control, N (None) = less than 20 percent control.

Table 5.91 - Relative Effectiveness of Herbicides for Broadleaf Weed Control in Cotton¹

	Cocklebur	Jimsonweed	Lambsquarters	Morningglory (annual spp.)	Pigweed	Tropic	Croton	Common Ragweed	Sicklepod	Smartweed	Spurred anoda	Prickly sida or teaweed	Velvetleaf
<i>Preplant Incorporated</i>													
Prowl	N	N	G	P	G	P	N	N	P	N	N	N	P-F
Treflan	N	N	G	P	G	P	N	N	P	N	N	N	N
Zorial	F	P	G	F	F-G	G-E	G	P	F	G	G-E	F-G	F-G
<i>Preemergence</i>													
Command	P	G	G	P	P	F-G	F-G	N	F-G	G-E	F-G	E	E
Cotoran	F	F	E	F	G	F	G	F	F	F	F-G	F	F
Dual	N	N	P	N	F	N	P	N	P	G	N	P	P
Sequence	N	N	P	N	F	N	P	N	P	G	N	P	P
Zorial	F	F	G	F	F-G	G-E	G	P	G-E	G	G-E	F-G	F-G
<i>Postemergence</i>													
Aim	G	F	G	G	G	-	P	N-P	G	G	P	G	G
Assure II/Assure II	N	N	N	N	N	N	N	N	N	N	N	N	N
Buctril	G	G	G-E	F-G	F	P	F-G	P	G	G-E	F	G	G
Caparol/ Cotton-Pro	E	F-G	G	F	G	G	G-E	F	G	P	F-G	F	F
Cobra	E	G-E	P-F	P-F	E	F-G	G	P-F	F	F	E	G	G
Cotoran	E	F-G	G	F	G	P-F	G-E	F	G	P	F-G	P	P
Envoke	E	E	G-E	E	G-E	P-G	G-E	E	-	P-F	F-G	G	G
Fusilade	N	N	N	N	N	N	N	N	N	N	N	N	N
Fusion	N	N	N	N	N	N	N	N	N	N	N	N	N
Harvade	G	G	G	G-E	G	F-G	G	G	F-G	F-G	G	F-G	F-G
Ignite	E	E	G-E	E	F-G	E	E	E	E	G-E	E	G-E	G-E
Goal	E	E	G	G	E	E	G	G	E	F	E	E	E
Layby Pro	G-E	G	G-E	G-E	G-E	F-G	G-E	G-E	G-E	P-F	G-E	G-E	G-E
Linex	G	G	G	F-G	G-E	P-F	F-G	G	F	P	F-G	P-F	P-F
MSMA/DSMA	E	F	P-F	P	P-F	P-F	F	P	P	P	P	P	P
Poast	N	N	N	N	N	N	N	N	N	N	N	N	N
Glyphosate	E	E	F-G	F	G-E	G	F	G-E	F	G	F-G	G	G
Select	N	N	N	N	N	N	N	N	N	N	N	N	N
Sequence	E	E	F-G	F	G-E	G	F	G-E	G	G	F-G	G	G
Staple	G-E	E	P	G	E	N	P	N-P	G-E	F-G	F-G	E	E
Suprend	E	E	G-E	E	G-E	P-G	G-E	E	G	G	F-G	G	G
Valor	G	F	G	G	G	-	P	N-P	G	G	P	G	G

¹E (Excellent) = 90 to 100 percent control, G (Good) = 80 to 90 percent control, F (Fair) = 60 to 80 percent control, P (Poor) = 20 to 60 percent control, N (None) = less than 20 percent control.

Table 5.92 - Burndown Herbicides for Stale Seedbed and Conservation Tillage Cotton for Application 30 to 45 Days Prior to Planting

Weed Species/ Cover Crop	Herbicide & Rate per Acre				
	2,4D ¹ 1.0 pt	Gramoxone Inteon 1.66 pt	Glyphosate (see labels for rates)	Harmony Extra ² 0.5 oz	Valor SX ³ 1.0-1.5 oz
Annual grasses	N	G-E	E	P	P
Carolina geranium	P-F	G-E	P-F	G	G
Chickweed, common	P	E	G	E	P
Curly dock	F-G	N	P-F	G	P
Cutleaf eveningprimrose	G	P	P	F	G
Henbit	P	G	G	E	F-G
Horseweed (marestail)	P-F	P	G	G	P
Wheat/rye	N	E	E ⁴	P	P
Wild mustard	G-E	P-F	F	G	F
Wild radish	G-E	P-F	F	G	F

E (Excellent) = 90 to 100 percent control, G (Good) = 80% to 90%, F (Fair) = 60 to 80%, P (Poor) = 20 to 60%, N (None) = less than 20%.

¹Apply at least 30 days prior to planting.

²Apply at least 45 days prior to planting.

³ Apply at least 30 days prior to planting (tank mixed with glyphosate products).

Table 5.93 - Burndown Herbicides for Stale Seedbed and Conservation Tillage Cotton for Application 7 to 21 Days Prior to Planting

Weed Species/Cover Crop	Herbicide & Rate per Acre		
	Clarity ¹ 8.0 oz	Gramoxone Inteon 1.66 pt	Glyphosate (see labels for rates)
Annual grasses	N	G-E	E
Carolina geranium	G	G-E	P-F
Chickweed, common	P-F	E	G
Curly dock	F-G	N	P-F
Cutleaf eveningprimrose	F-G	P	P
Henbit	F	G	G
Horseweed (marestail)	F	P	G
Wheat/rye	N	E	E
Wild mustard	F	P-F	F
Wild radish	F	P-F	F

E (Excellent) = 90 to 100 percent control, G (Good) = 80% to 90%, F (Fair) = 60 to 80%, P (Poor) = 20 to 60%, N (None) = less than 20%.

¹Following application of Clarity, a minimum accumulation of 1 in rainfall or irrigation water and a waiting interval of 21 days is required prior to planting cotton.

Table 5.94 - Application Rates and Perennial Grass Sizes for Treatment with Assure, Fusilade DX, Fusion, Poast, Poast Plus, and Select¹

(Rain-free period is 1 hour for each herbicide listed below.)

Herbicide	Weed	Weed Size and Herbicide Rate (oz/A)	
		First Application	Second Application ²
Assure II/Assure II	Rhizome johnsongrass	10- to 24-inch tall 10.0 oz	6- to 10-inch tall 7.0 oz
	Bermudagrass	up to 6-inch runners 10.0 oz	up to 6-inch runners 7.0 oz
Fusilade DX	Rhizome johnsongrass	8- to 18-inch tall 12.0 oz	6- to 12-inch tall 8.0 oz
	Bermudagrass	4- to 8-inch runners 12.0 oz	4- to 8-inch runners 8.0 oz
Fusion	Rhizome johnsongrass	8- to 18-inch tall 10.0-12.0 oz	6- to 12-inch tall 8.0 oz
	Bermudagrass	4- to 8-inch runners 12.0 oz	4- to 8-inch runners 8.0 oz
Poast	Rhizome johnsongrass	15- to 25-inch tall 24.0 oz	6- to 12-inch tall 16.0 oz
	Bermudagrass	6-inch runners 24.0 oz	1- to 4-inch runners 16.0 oz
Poast Plus	Rhizome johnsongrass	15- to 25-inch tall 36.0 oz	6- to 12-inch tall 24.0 oz
	Bermudagrass	6-inch runners 36.0 oz	1- to 4-inch runners 24.0 oz
Select	Rhizome johnsongrass	12- to 24-inch tall 8.0-16.0 oz	6- to 18-inch tall 6.0-8.0 oz
	Bermudagrass	3- to 6-inch runners 8.0-16.0 oz	3- to 6-inch runners 8.0-16.0 oz
Select Max	Rhizome johnsongrass	12- to 24-inch tall 16.0-32.0 oz	12.0-16.0 oz
	Bermudagrass	3- to 6-inch runners 16.0-32.0 oz	16.0-32.0 oz

¹Taken from product labels.²Make second application only if needed to control regrowth or new plants. Size refers to regrowth or new plants.

Table 5.95 - Application Rates and Annual Grass Sizes for Treatment with Assure II, Fusilade DX, Fusion, Poast, Poast Plus, and Select¹

(Rain-free period is 1 hour for each herbicide listed below.)

Species	Poast		Poast Plus		Fusilade DX		Fusion		Assure II/ Assure II		Select		Select Max	
	Height (in.)	Rate (oz/A)	Height (in.)	Rate (oz/A)	Height (in.)	Rate (oz/A)	Height (in.)	Rate (oz.)	Height (in.)	Rate (oz/A)	Height (in.)	Rate (oz/A)	Height (in.)	Rate (oz/A)
Barnyardgrass	8	16	8	24	2-3	12	2-4	8	2-6	8	2-8	6-8	2-8	12-16
Broadleaf signalgrass	8	16	8	24	2-4	12	2-4	8-10	2-6	10	2-6	6-8	2-6	12-16
Crabgrass	6	16	6	24	1-2	12	1-4	8	2-6	10	2-6	6-8	2-6	12-16
Crowfootgrass	—	—	—	—	—	—	—	—	2-6	7-8	2-6	6-8	2-6	12-16
Fall panicum	8	16	8	24	2-6	12	2-6	8	2-6	7-8	2-6	6-8	2-6	12-16
Foxtails, Giant	8	16	8	24	2-6	12	2-8	6	2-8	7-8	2-12	6-8	2-12	12-16
Foxtails, Green	8	16	8	24	2-4	12	2-4	6	2-4	7-8	2-8	6-8	2-8	12-16
Foxtails, Yellow	8	16	8	24	2-4	12	2-4	6	2-4	7-8	2-8	6-8	2-8	12-16
Goosegrass	6	16	6	24	2-4	8	2-4	8	2-6	7-8	2-6	6-8	2-6	12-16
Seedling johnsongrass	8	16	8	24	2-8	6	2-8	6	2-8	5-8	4-10	6-8	4-10	12-16
Sandbur	3	20	3	30	2-6	12	2-6	8	2-6	7-8	2-6	6-8	2-6	12-16
Shattercane	18	16	18	24	6-12	6	6-12	6	6-12	5-8	4-10	6-8	4-10	12-16
Texas panicum	8	16	8	24	2-8	12	2-8	8	2-4	8-10	2-6	6-8	2-6	12-16
Volunteer corn	20	16	20	24	12-24	6	12-24	6	6-18	5-8	4-12	4-6	4-12	8-12

¹Taken from product labels; — control not claimed on label.

Table 5.96 - Rotational Restrictions

The herbicides listed below, when used in cotton, may influence one's ability to rotate crops in a normal fashion. Labeled rotational intervals which are discussed below may be influenced by many factors such as the addition of other residual herbicides, soil type, soil pH, etc. Do not use these herbicides unless all rotational restrictions are understood.

Herbicide	Rotation Restrictions
Aim	Corn, sweetcorn, popcorn, soybeans, grain sorghum, rice, wheat, barley, oats, buckwheat, pearl millet, proso millet, rye, teosinte, triticale, and wild rice may be planted any time following an application of Aim. Root and leafy vegetables may be planted after 30 days following an application of Aim. All other crops may be planted after 12 months following an application of Aim.
Assure II/Assure II	Do not rotate to crops other than soybeans or cotton within 120 days of application.
Buctril	Do not plant rotational crops until the following use season.
Caparol/Cotton-Pro	Do not plant rotational crops until the following year.
Cobra	No crop rotation restrictions.
Command	Rotate to crops as listed on label or crop injury may occur. Cover crops may be planted anytime but stand reductions may occur.
Cotoran	Do not plant crops other than cotton within 6 months of the last application of Cotoran/Meturon.
DSMA/MSMA	No restrictive statements listed on label.
Dual	Barley, oats, rye, or wheat may be planted 4 months following application. Crops on Dual label may be planted in the spring following application. All other rotation crops may be planted 12 months after application.
Envoke	Crop rotation interval restrictions based on a total of 0.4 oz/A of Envoke per season are as follows: winter wheat and transplanted tomato (3 months); cotton, field and sweet corn, grain sorghum, peanut, soybean, and trans-planted tobacco (7 months); transplanted bell pepper and Irish potato (12 months but based on field bioassay); and all other crops (18 months). If there is a cotton crop failure and no more than 0.15 oz/A of Envoke has been applied, cotton or STS-soybean (sulfonylurea tolerant soybean) may be replanted 30 or more days after the Envoke application, or 14 or more days after the first significant rainfall (≥ 0.5 inches) following the Envoke application.
Fusilade DX	Do not plant rotational grass crops such as corn, sorghum, and cereals within 60 days of last application.
Fusion	Do not plant rotational grass crops such as corn, sorghum, and cereals within 60 days of last application.
Glyphosate	No rotational restrictions.
Goal	Do not rotate to barley, corn, oats, sorghum, triticale, or wheat with 10 months following application. Do not direct seed any crops other than Goal-labeled crops, within 60 days of treatment. Do not transplant seedling crops, other than Goal-label crops within 30 days of treatment.
Harvade	Do not plant rotation crops within 6 months after application.
Ignite	Small grains may be planted 70 days after application.
Layby Pro	Only cotton, corn, and grain sorghum can be planted the spring following the Layby Pro post-directed application. All other crops cannot be planted in the treated area within 1 year after the last Layby Pro application, or severe injury to subsequent crops may occur.
Linex	Do not plant rotational crops other than corn, soybeans or potatoes within 4 months after application.
Poast/Poast Plus	No rotational restrictions.
Prowl	Winter wheat or winter barley may be planted 120 days after application. Any crop other than sugarbeets, red beets or spinach may be planted the year following application.
Select/Select Max	No rotational restrictions.
Sequence	Barley, oats, rye, or wheat may be planted 4 months following application. All crops with a label for metolachlor (Dual) may be planted in the spring following the application. All other rotation crops may be planted 12 months after application.

Table 5.96 - Rotational Restrictions (cont.)

The herbicides listed below, when used in cotton, may influence one's ability to rotate crops in a normal fashion. Labeled rotational intervals which are discussed below may be influenced by many factors such as the addition of other residual herbicides, soil type, soil pH, etc. Do not use these herbicides unless all rotational restrictions are understood.

Herbicide	Rotation Restrictions
Staple	Crop rotation interval restrictions for Staple are as follows: winter wheat (4 months); field corn, peanut, soybean, and transplanted tobacco (10 months); and all other crops are based on field bioassay or a minimum of 10 months. If there is a cotton crop failure following a Staple application, cotton may be replanted anytime (without disturbing original seedbed) or STS-soybean (sulfonylurea tolerant soybean) may be replanted 30 days after the Staple application.
Suprend	Crop rotation interval restrictions based on a total of 2.69 lb/A of Suprend (0.0188 lb ai/A of trifloxysulfuron-sodium) per season are as follows: winter wheat and transplanted tomato (3 months); cotton, field and sweet corn, grain sorghum, peanut, soybean, and transplanted tobacco (7 months); transplanted bell pepper and Irish potato (12 months but based on field bioassay); and all other crops (18 months). If there is a cotton crop failure and no more than 1.0 lb/A of Suprend has been applied, cotton or STS-soybean (sulfonylurea tolerant soybean) may be replanted 30 or more days after the Suprend application, or 14 or more days after the first significant rainfall (≥ 0.5 inches) following the Suprend application.
Treflan	Sugar beets, red beets or spinach should not be planted within 12 months of a spring application. Vegetable crops other than those listed on the Treflan label should not be planted within 5 months of application.
Valor	Crop rotation interval restrictions based on a total of 2 oz/A of Valor per season are as follows: cotton, field corn, sorghum, sunflower, tobacco, and wheat (30 days); barley, dry bean, field pea, rye, and sweet corn (4 months); alfalfa, canola, clover, oats, and all other crops not listed (12 months). At least one inch of rainfall/irrigation must occur between application and planting or crop injury may occur. Successful soil bioassay must be performed prior to planting alfalfa, canola, sugar beets, and other crops not listed. Preplant burndown applications of Valor 51 WDG may injure cotton if planted too soon. Valor at 1.0 oz/A will give 2 to 4 weeks control of lambsquarters, pigweed, prickly sida, spurge, and Florida pusley; and at 2.0 oz/A will give 6 to 8 weeks control of these species. Application to cover crop or dense weed stand may reduce residual control. Tillage after application will reduce or eliminate residual control. A minimum of 14 days and a 1-inch rainfall must occur between Valor application and cotton planting when Valor is applied at 1.0 oz/A; 21 days must pass and a 1-inch rainfall when applied at 1.5 to 2.0 oz/A. Valor at 2.0 oz/A may be applied up to 14 days prior to planting strip-till cotton. A tillage application must occur between application and cotton planting in order to prevent any potential injury to emerging cotton plants. Failure to conduct strip-tillage operation prior to planting may result in cotton injury. Strip-tillage operation must incorporate soil to a depth of 1 to 2 inches.
Zorial	Rotate only to cotton, soybeans or peanuts within 16 months of application.