

# Reflex Guidelines

## for Cotton



<b>Mode of Action</b>	<ul style="list-style-type: none"> <li>Fomesafen, the active ingredient in Reflex® herbicide, inhibits protoporphyrinogen oxidase (PPG oxidase or Protox) leading to the loss of chlorophyll and carotenoids and eventual destruction of cell membranes resulting in plant death (Group 14 mode of action).</li> </ul>
<b>Rate</b>	<ul style="list-style-type: none"> <li>Apply Reflex pre-emergence or post-directed at a rate of 1.0 to 1.5 pts./A.</li> </ul>
<b>Tank-mix Partners</b>	<ul style="list-style-type: none"> <li><b>Pre-emergence:</b> Caparol®, Cotoran®, Direx®, Karmex®, Prowl®, Solicam®, Staple® herbicides</li> <li><b>Preplant/at-planting:</b> Gramoxone Inteon®, Touchdown Total® herbicides</li> <li><b>Post-directed:</b> Caparol, DSMA, Direx, Dual Magnum®, Envoke®, Gramoxone Inteon, Karmex, Layby™ Pro, MSMA, Sequence®, Suprend®, Touchdown Total herbicides</li> </ul>
<b>Application Guidelines</b>	<ul style="list-style-type: none"> <li>Always apply Reflex under favorable environmental conditions that promote active weed growth. Avoid applying Reflex to weeds or labeled crops which are under stress from drought, extreme temperatures, excessive water, low humidity, low soil fertility, or mechanical or chemical injury as reduced weed control and/or increased crop injury may result.</li> <li>Use Reflex only on coarse textured soils, such as sandy loam, loamy sand and sandy clay loam.</li> <li>Adequate rainfall or irrigation within seven days of application is required for activation.</li> <li>For best results, plant to good soil moisture followed by rainfall prior to crop emergence. Under heavy rainfall, residual control is decreased.</li> </ul> <p><b>Post-directed</b></p> <ul style="list-style-type: none"> <li>Apply Reflex with a non-ionic surfactant (NIS) at 0.25 to 0.5 percent v/v or crop oil concentrate (COC) at 1 percent v/v to emerged weeds.</li> </ul>
<b>Other Application Restrictions</b>	<ul style="list-style-type: none"> <li>Do not apply Reflex later than 70 days prior to harvest.</li> <li>Do not apply more than 1.5 pts./A of Reflex (or 0.375 lb. a.i./A of fomesafen-containing products) in any year.</li> <li>Do not apply this product through any type of irrigation system.</li> <li>Do not apply as a pre-emergence treatment to medium or fine-textured soils as crop injury will likely occur.</li> <li>Do not apply Reflex over the top of emerged cotton as injury will occur.</li> <li>Do not add liquid nitrogen (28 percent or similar) to Reflex, or Reflex tank mixes in cotton.</li> </ul>
<b>Application Timing</b>	<ul style="list-style-type: none"> <li><b>Pre-emergence (coarse textured soils only):</b> Apply up to 14 days prior to planting or at planting.</li> <li><b>Post-directed:</b> Reflex may be applied post-directed to cotton that is at least 6 inches in height through lay-by. <ul style="list-style-type: none"> <li><b>Shielded and Hooded Applications:</b> Make a precision post-directed application to the base of the cotton plant avoiding contact with the stem or foliage and using only hooded or shielded spray equipment. Cotton should be at least 6 inches in height.</li> <li><b>Lay-by Applications:</b> Make a post-directed application to the base of the cotton plant avoiding contact with any non-barked portion of the cotton plant or foliage. Use precision post-directed equipment or hooded or shielded sprayers on cotton that has developed a minimum of 4 inches of brown bark through lay-by.</li> </ul> </li> </ul>
<b>Rotational Crops</b>	<ul style="list-style-type: none"> <li>0 months – Cotton, dry beans, snap beans and soybeans</li> <li>4 months – Small grains such as wheat, barley and rye</li> <li>10 months – Corn*, peanuts, peas, rice and seed corn</li> <li>18 months – Alfalfa, sunflowers, sorghum**, sugar beets and any other crop not listed on label</li> </ul> <p>*Use 12-month minimum rotation interval for popcorn in the states of OH, KY, IL, IN, IA and Region 4 when applied at a rate of 1 pt./A or more.</p> <p>*Use 18-month minimum rotation interval for sweet corn in the states of CT, ME, MA, NH, NY, RI, VT and Region 5.</p> <p>**Sorghum may be planted back after 10 months in Region 1.</p> <p><b>Refer to product label for regional use maps.</b></p>
<b>Personal Protective Equipment</b>	<ul style="list-style-type: none"> <li>Long-sleeved shirt, long pants, chemical-resistant gloves such as barrier laminate or Viton®, shoes plus socks, protective eyewear</li> <li>In addition for aerial applications, mixers and loaders handling more than 140 gallons of Reflex in any single workday must wear: Dust/mist filtering NIOSH-approved respirator with any N, R, P, or HE filter.</li> </ul>
<b>Re-entry Interval &amp; PPE for Early Entry</b>	<ul style="list-style-type: none"> <li>Re-entry interval: 24 hours</li> <li>PPE for Early Entry: Coveralls, chemical-resistant gloves such as barrier laminate or Viton, shoes plus socks, protective eyewear</li> </ul>
<b>Storage Requirements</b>	<ul style="list-style-type: none"> <li>Store above 32°F in original containers only. If product freezes, return to room temperature and agitate to reconstitute.</li> <li>Keep container closed when not in use.</li> <li>Do not store near food or feed.</li> </ul>
<b>Environmental Hazards</b>	<ul style="list-style-type: none"> <li>Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark.</li> <li>Do not apply when weather conditions favor drift from target area.</li> <li>Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.</li> </ul>

Weeds controlled or partially controlled <sup>a</sup> by pre-emergence activity of Reflex at 1 to 1.5 pts./A <sup>1</sup>			Weeds controlled or partially controlled <sup>a</sup> by post-emergence activity of Reflex				
Broadleaf Weeds Controlled	Soil Texture	Organic Matter	Weeds Controlled	0.75 pt./A No. of True Leaves	1 pt./A No. of True Leaves	1.25 pts./A No. of True Leaves	1.5 pts./A No. of True Leaves
Amaranth, Palmer	All soil types	Up to 5%	Anoda, spurred	--	--	--	2
Croton, tropic <sup>2</sup>			Balloonvine	--	--	2 <sup>c</sup>	2
Eclipta			Carpetweed	--	6" Diameter Size	Multi-leaf 6"	Unlimited Size
Galinsoga spp.			Citron (wild watermelon)	--	2	2	4
Lambsquarters, common			Cocklebur, common <sup>a,b</sup>	--	--	2	4
Morningglory, smallflower			Copperleaf, hophornbeam	--	2	2	4
Nightshade, black			Copperleaf, Virginia	--	2	2	4
Nightshade, Eastern black			Crotalaria, showy	--	4	4	6
Pigweed, redroot			Croton, tropic	--	2	2	4
Pigweed, smooth			Cucumber, volunteer	--	4	4	6
Poinsettia, wild			Eclipta	--	2	2	4
Purslane, common			Groundcherry, cutleaf	--	4	4	6
Ragweed, common <sup>2</sup>			Hemp <sup>b</sup>	--	--	4	6
Sida, prickly <sup>2</sup>			Horsenettle <sup>b</sup>	--	2 <sup>c</sup>	3 <sup>c</sup>	4 <sup>c</sup>
Starbur, bristly			Jimsonweed	2	4	6	8
<b>Broadleaf Weeds Partially Controlled<sup>a</sup></b>			Ladysthumb	--	2	2	4
Anoda, spurred			Lambsquarters, common <sup>c</sup>	--	2	2	2
Cocklebur, common			Mexicanweed	--	2 <sup>c</sup>	2 <sup>c</sup>	2
Morningglory, entireleaf			Morningglory				
Morningglory, ivyleaf			Cypressvine	--	4	4	6
Morningglory, pitted			Entireleaf var.	2 <sup>c</sup>	2	2	4
Morningglory, red/scarlet			Ivyleaf	2 <sup>c</sup>	2	2	4
Morningglory, tall			Purple moonflower	--	2	4	4
Nightshade, hairy			Red (scarlet)	--	2	2	4
Ragweed, giant			Smallflower	--	2	2	4
Waterhemp, common			Pitted (smallwhite)	--	4	4	4
<b>Sedges Partially Controlled<sup>a</sup></b>			Tall (common)	2 <sup>c</sup>	2	2	3
Nutsedge, yellow			Palmleaf (willowleaf)	--	2	2	4
	Mustard, wild	2	4	6	8		
	Nightshade, black	2	4	4	4		
	Nutsedge, yellow	--	--	--	Suppression Only		
	Pigweed, spp.						
<sup>a</sup> Do not apply in cotyledon stage.	Amaranth, Palmer	2 <sup>c</sup>	4	4	6		
	Amaranth, spiny	2 <sup>c</sup>	2	2	4		
	Redroot	2 <sup>c</sup>	4	6	6		
	Smooth	2 <sup>c</sup>	4	4	6		
<sup>b</sup> For effective control of this weed it is necessary to use 1% MSO and 2.5% UAN v/v as an adjuvant in Regions 2 and 3 (soybeans only).	Poinsettia, wild	--	--	--	3		
	Purslane, common	--	Multi-Leaf 6"	Multi-Leaf 6"	Multi-Leaf 8"		
	Pusley, Florida	--	--	--	2		
<sup>c</sup> Partial control means significant activity but not always at a level considered acceptable for commercial weed control.	Ragweed, common	2	4	4	6		
	Ragweed, giant <sup>b</sup>	--	--	4	4		
	Redweed	--	--	--	3 <sup>c</sup>		
	Sesbania, hemp	--	6	6	12		
<sup>1</sup> Use the higher end of the rate range when heavy weed populations are anticipated.	Sicklepod	--	--	--	Cotyledon <sup>c</sup>		
	Sida, prickly	--	--	--	Cotyledon <sup>c</sup>		
	Smartweed, Pennsylvania	2 <sup>c</sup>	4	4	6		
	Smellmelon	--	--	--	2		
	Spurge, prostrate	--	--	--	1" Diameter <sup>c</sup>		
	Spurge, spotted	--	--	--	2 <sup>c</sup>		
	Starbur, bristly	--	2	2	4		
	Sunflower, common	--	--	--	2		
<sup>2</sup> Rates less than 1.5 pts./A will provide only partial control of this weed.	Velvetleaf <sup>b</sup>	--	--	2	4		
	Venice mallow	2	4	4	6		
	Waterhemp, common	2 <sup>c</sup>	2	2	4		
	Waterhemp, tall	2 <sup>c</sup>	2	2	4		
	Witchweed	--	Multi-leaf Up to 7"	Multi-leaf Up to 7"	Multi-leaf Up to 10"		
	Yellow rocket	2	4	6	6		

For more information, visit [www.farmassist.com](http://www.farmassist.com) or call Syngenta Customer Center at 1-866-SYNGENT(A) (796-4368).

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