

Herbicide Mode of Action Reference Table

Understanding how herbicides work is useful for selecting the correct products, understanding herbicide injury symptoms, and preventing herbicide resistance problems. The following reference table lists commonly used herbicides and their chemical mode of action. Some products that contain more than one active ingredient may have more than one mode of action.

Groups indicated by ⊗ are herbicide modes of action with documented occurrences of weed resistance in Iowa. Avoid continuous use of products from these groups and utilize a herbicide program that includes multiple modes of action.

Product	Growth regulator	ALS/AHAS inhibitors ⊗	Amino acid derivatives	Lipid inhibitors ⊗	Root inhibitors	Shoot inhibitors	Mobile PS inhibitor ⊗	Non-mobile PS inhibitor	Cell Memb. disruptor	Pigment Inhibitors
2,4-D	■									
Aatrex (atrazine)							■			
Accent		■								
Accent Gold	■	■								
Aim									■	
Ally		■								
Amber		■								
Asset		■								
Assure II				■						
Authority									■	
Average									■	
Axiom, Axiom AT						■	■			
Backdraft		■	■							
Balan					■					
Balance, Balance Pro										■
Banvel	■									
Basagran									■	
Basis		■								
Basis Gold		■					■			
Battalion		■								
Beacon		■								
Bicep (various formulation)						■	■			
Bicep MAGNUM TR		■				■	■			
Bladex										■
Blazer, Ultra Blazer									■	
Boundary						■	■			
Broadstrike + Dual		■				■	■			
Broadstrike + Treflan		■			■					
Bronate										
Bronco			■			■			■	
Buctril						■	■			
Buctril/Atrazine						■	■			
Bullet						■	■			
Butoxone, Butyrac	■									

Product	Growth regulator	ALS/AHAS inhibitors ⊗	Amino acid derivatives	Lipid inhibitors ⊗	Root inhibitors	Shoot inhibitors	Mobile PS inhibitor ⊗	Non-mobile PS inhibitor	Cell Memb. disruptor	Pigment Inhibitors
Canopy		■								
Canopy XL		■								
Celebrity	■	■								
Celebrity Plus	■	■								
Clarity										
Classic		■								
Cobra									■	
Command									■	■
Command Xtra									■	■
Commence					■					■
Connect										■
Contain									■	
Cover									■	
CropStar									■	
Crossbow	■									
CyPro										■
Dactril										■
Define										■
Degree										■
Degree Xtra										■
Detail										■
Digest										■
Distinct	■									
Domain										■
Doubleplay										■
Dual II MAGNUM										■
Epic										■
Eptam										■
Eradicane										■
Evik										■
Exceed										■
Express										■
Extrazine II										■
Extreme										■
FieldMaster										■
Finesse										■
FirstRate										■
Flexstar										■
Freedom										■
Frontier										■
FrontRow										■
FullTime										■
Fusilade										■
Fusion										■
Galaxy										■
Garlon										■
Gauntlet										■
Glean										■
Gramoxone Extra										■

Product	Growth regulator	ALS/AHAS inhibitors ⊗	Amino acid derivatives	Lipid inhibitors ⊗	Root inhibitors	Shoot inhibitors	Mobile PS inhibitor ⊗	Non-mobile PS inhibitor	Cell Memb. disruptor	Pigment Inhibitors
Guardman										
glyphosate (various)			■							
Harmony Extra		■								
Harness										
Harness Xtra										
Headline B&G				■						
Hoelon				■						
Homet, Homet WDG	■	■								
Hyyar XL										
Karmex										
Laddok S-12										
Landmaster	■	■								
Lariat										
Lasso										
LeadOff										
Lexone DF										
Liberty										
Liberty ATZ										
Lightning		■								
Lorox DF										
Manifest				■						
Marksman	■	■								
MCPA										
MCPP	■	■								
NorthStar		■								
Optill	■	■								
Option II										
Outlook										
Partner										
Passport										
Peak		■								
Pendimax										
Pentagon										
Permit										
Pinnacle		■								
Plateau		■								
Poast										
Poast Plus										
Pramitol										
Princep										
Prowl										
Pursuit		■								
Pursuit Plus		■								
Python		■								
Ramrod										
Raptor		■								
Reflex										
Remedy	■									

Product	Growth regulator	ALS/AHAS inhibitors ⊗	Amino acid derivatives	Lipid inhibitors ⊗	Root inhibitors	Shoot inhibitors	Mobile PS inhibitor ⊗	Non-mobile PS inhibitor	Cell Memb. disruptor	Pigment Inhibitors
Resource										
Reward										
Rezult B & G										
Ro-Neet										
Roundup formulations										
Salvo	■	■								
Scepter		■								
Scepter OT		■								
Scorpion III	■	■								
Select										
Sencor										
Shotgun	■									
Simazine										
Sonalan										
Spike										
Spirit										
Squadron		■								
Steadfast										
Steel										
Stellar										
Stinger	■									
Storm										
Surflan										
Surpass										
Surpass 100										
Sutan+										
Synchrony STS										
TopNotch										
Tordon	■									
Tornado										
Touchdown										
Tough										
Treflan										
Tri-scept		■								
UpBeet										
Velpar										
Whip										

Common chemical and trade names are used in this publication. The use of trade names is for clarity by the reader. Inclusion of a trade name does not imply endorsement of that particular brand of herbicide and exclusion does not imply nonapproval.

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