

## Herbicide Names and Mixtures

Bob Parker

*Revised October 31, 2008*

Descriptions of chemicals' properties are in the section *Agrichemicals and Their Properties* in this handbook.

Trade Name	Common Name	Herbicides in Mixture	Mfr.
120 Herbicide	MSMA		
2,4-DP	dichlorprop		
912 Herbicide	MSMA		
AAtrex	atrazine		
Accelerate	endothall		
Accent	nicosulfuron		DuPont
Accent Gold		6.5% nicosulfuron + 6.5% rimsulfuron + 19.1% flumetsulam + 51.7% clopyralid/lb	DuPont
Acclaim Extra	fenoxaprop		
Accord	glyphosate		
Accord SP	glyphosate		
Accord XRT	glyphosate		
Accurate	metsulfuron		
Accurate Extra		18.75% tribenuron + 37.5% thifensulfuron + 15% metsulfuron/lb	Cheminova
Achieve	tralkoxydim		
Acquire	glyphosate		
Acumen	pendimethalin		
Affinity Broadspec		25% thifensulfuron + 25% tribenuron/lb	DuPont
Affinity TankMix		40% thifensulfuron + 10% tribenuron/lb	DuPont
Agility		27.3% thifensulfuron + 13.6% tribenuron + 10.9% metsulfuron/lb	DuPont

## HERBICIDE NAMES AND MIXTURES (contd.)

Trade Name	Common Name	Herbicides in Mixture	Mfgr.
Agility SG		57.8% dicamba + 4.7% thifensulfuron + 2.4% tribenuron + 1.9% metsulfuron/lb	DuPont
Aim	carfentrazone		
Alanap	naptalam		
Alecto 41HL	glyphosate		
Alecto 41S	glyphosate		
Alecto 41UL	glyphosate		
Ally	metsulfuron		
Ally Extra		37.5% thifensulfuron + 18.75% tribenuron + 15% metsulfuron/lb	DuPont
Alphanex	desmedipham		
A-Maize-N	corn gluten meal		
Amber	triasulfuron		
Amine 4	2,4-D amine		
Ansar	MSMA		
Aqua Star	glyphosate		
AquaCure	copper		
Aquamaster	glyphosate		
AquaNeat	glyphosate		
AquaPier	imazapyr		
AquaPro	glyphosate		
Aquathol	endothall		
Aquatic Weed Killer	xylene		
Arcadian sodium arsenite	sodium arsenite		
Arena	alachlor		
Arrow	clethodim		
Arsenal	imazapyr		
Arsonate	MSMA		
Assert	imazamethabenz		
Assure II	quizalofop		
Asulox	asulam		
ATA	amitrole		
Atila Plus Systemic	glyphosate		
Atila Systemic	glyphosate		
Atra-5	atrazine		
Atra-Pril	atrazine		
ATZ	amitrole		
Audit 75 WDG		56.25% thifensulfuron + 18.75% tribenuron/lb	Arysta
Autumn	iodosulfuron		
Avadex-BW	triallate		
Avast!	fluridone		
Avenge	difenzoquat		
Avocet	glyphosate		
Avocet PLX	glyphosate		Phoenix Environmental
Axial	pinoxaden		
Axial TBC		0.774 lb pinoxaden + 0.0645 lb floraulam/gal	Syngenta

**HERBICIDE NAMES AND MIXTURES (contd.)**

Trade Name	Common Name	Herbicides in Mixture	Mfr.
Axiom		54.4% flufenacet + 13.6% metribuzin/lb	Bayer
Axiom AT		19.6% flufenacet + 4.9% metribuzin + 50.5% atrazine/lb	Bayer
Backdraft		0.25 lb imazaquin + 0.94 lb ae glyphosate/gal	BASF
Balan	benefin		
Banvel	dicamba		
Banvel + 2,4-D		1 lb dicamba + 2.87 lb 2,4-D/gal	Arysta
Banvel 720		1 lb dicamba + 1.9 lb 2,4-D/gal	BASF
Banvel SGF	dicamba		
Barespot Monobor-Chlorate		30% sodium chlorate + 48.5% sodium metaborate/lb	Pro-Serve
Barrage	2,4-D		
Barricade	prodiamine		
Barrier	dichlobenil		
Basagran	bentazon		
Basagran T/O	bentazon		
Base Camp Amine 4	2,4-D		Wilbur-Ellis
Basis		50% rimsulfuron + 25% thifensulfuron/lb	DuPont
Basis Gold		1.34% rimsulfuron + 1.34% nicosulfuron + 86.8% atrazine/lb	DuPont
Battleship		3 lb MCPA + 0.27 lb triclopyr + 0.13 lb clopyralid/gal	Helena
Beacon	primisulfuron		
Bensumec	bensulide		
Betamec	bensulide		
Betamix		0.65 lb phenmedipham + 0.65 lb desmedipham/gal	Bayer
Betanal	phenmedipham		
Betanex	desmedipham		
Betasan	bensulide		
Beyond	imazamox		
Bicep		3.28 lb metolachlor + 2.67 lb atrazine/gal	Syngenta
Bicep II		3.18 lb metolachlor + 2.67 lb atrazine/gal	Syngenta
Bicep II Magnum		2.4 lb S-metolachlor + 3.1 lb atrazine/gal	Syngenta
Bicep Lite		3.35 lb metolachlor + 1.67 lb atrazine/gal	Syngenta
Bicep Lite II		3.23 lb metolachlor + 1.67 lb atrazine/gal	Syngenta
Bicep Lite II Magnum		3.33 lb S-metolachlor + 2.67 lb atrazine/gal	Syngenta
BioMaxx	glyphosate		
Bison		2 lb bromoxynil + 2 lb MCPA/gal	Winfield
Blazer	acifluorfen		
Blue Stone	copper sulfate		
BnB Plus		0.6 lb phenmedipham + 0.6 lb desmedipham + 0.6 lb ethofumesate/gal	United Phosphorus
Boa	paraquat		
Bolls-Eye	cacodylic acid		
Boron	borates		
Boundary 6.5EC		1.25 lb metribuzin + 5.25 lb S-metolachlor/gal	Syngenta
Brash		1 lb dicamba + 2.87 lb 2,4-D/gal	Winfield
Brawl	S-metolachlor		
Brawl II	S-metolachlor		

## HERBICIDE NAMES AND MIXTURES (contd.)

Trade Name	Common Name	Herbicides in Mixture	Mfgr.
Brawl II Atz		3.1 lb atrazine + 2.4 lb <i>S</i> -metolachlor/gal	Tenkoz
Brawn		3.1 lb atrazine + 2.4 lb <i>S</i> -metolachlor/gal	Syngenta
Brazen		2.25 lb triclopyr + 0.75 lb clopyralid/gal	Nufarm
Breakfree	acetochlor		DuPont
Breakfree ATZ		2.25 lb atrazine + 3 lb acetochlor/gal	DuPont
Breakfree ATZ Lite		1.5 lb atrazine + 4 lb acetochlor/gal	DuPont
Break-Up	pronamide		
Broadrange 55	2,4-D acid		
BroadStar	flumioxazin		
Broclean	bromoxynil		
Bromac		2 lb bromoxynil + 2 lb MCPA/gal	Loveland
Bromac Advanced		2.5 lb bromoxynil + 2.5 lb MCPA/gal	Loveland
Bromox	bromoxynil		
Bromox MCPA		2 lb bromoxynil + 2 lb MCPA/gal	Arysta
Bromoxynil 2EC	bromoxynil		
Bronate		2 lb bromoxynil + 2 lb MCPA/gal	Bayer
Bronate Advanced		2.5 lb bromoxynil + 2.5 lb MCPA/gal	Bayer
Bronate Pro		Package has two containers: one of fenoxaprop and one of bromoxynil	Bayer
Bronco		2.6 lb alachlor + 1.04 lb (ae) glyphosate/gal	Monsanto
Brox	bromoxynil		
Brox-M		2 lb bromoxynil + 2 lb MCPA/gal	Albaugh
Brox-M Ultra		2.5 lb bromoxynil + 2.5 lb MCPA/gal	Albaugh
Brozine		1 lb bromoxynil + 2 lb atrazine/gal	Loveland
Brush Buster		1 lb dicamba + 1.9 lb 2,4-D/gal	BASF
Brush-No-More		0.51 lb 2,4-D + 0.51 lb dichlorprop + 0.13 lb dicamba/gal	PBI/Gordon
Brush-Weeds & Grass		20% citric acid + 4% acetic acid/gal	Greenenergy
Buccaneer	glyphosate		
Buckle		10% triallate + 3% trifluralin/lb	Gowan
Buctril	bromoxynil		
Buctril + Atrazine		1 lb bromoxynil + 2 lb atrazine/gal	Bayer
Budnip	chlorpropham		
Bueno	MSMA		
Bullet		2.5 lb alachlor + 1.5 lb atrazine/gal	Monsanto
Butoxone	2,4-DB		
Butyrac	2,4-DB		
Cadence	acetochlor		
Cadence ATZ		3 lb acetochlor + 2.25 lb atrazine/gal	Loveland
Cadence Lite ATZ		4 lb acetochlor + 1.5 lb atrazine/gal	Loveland
Callisto	mesotrione		
Camix		3.34 lb <i>S</i> -metolachlor + 0.33 lb mesotrione/gal	Syngenta
Campaign		0.9 lb glyphosate + 1.5 lb 2,4-D/gal	Monsanto
Candor		1 lb triclopyr + 2 lb 2,4-D/gal	Nufarm
Cannon		2.5 lb alachlor + 0.5 lb trifluralin/gal	Monsanto
Can-Trol	MCPB		
Canvas		37.5% thifensulfuron + 18.75% tribenuron + 15% metsulfuron/lb	DuPont

## HERBICIDE NAMES AND MIXTURES (contd.)

Trade Name	Common Name	Herbicides in Mixture	Mfg.
Caparol	prometryn		
Capreno		0.57 lb thien carbazone-methyl, + 2.88 lb tembotrione/gal	Bayer
Captain	copper carbonate		
Cascade Aquatic Herbicide	endothall		United Phosphorus
Casoron	dichlobenil		
Cavalcade	prodiamine		
Celebrity		63% dicamba + 7.5% nicosulfuron/lb	BASF
Celebrity Plus		42.4% dicamba + 17% diflufenzopyr + 10.6% nicosulfuron/lb	BASF
Certainty	sulfosulfuron		
Channel	acetochlor		
Chaparral		0.525 lb aminopyralid + 0.0945 lb metsulfuron/lb	Dow
Charger Max	S-metolachlor		
Charger Max ATZ		3.1 lb atrazine + 2.4 lb S-metolachlor/gal	Winfield
Charger Max ATZ Lite		2.67 lb atrazine + 3.33 lb S-metolachlor/gal	Winfield
Chaser 2		2.78 lb 2,4-D + 1.07 lb triclopyr/gal	Loveland
Chaser Turf Herbicide		1 lb triclopyr ester + 2 lb 2,4-D ester/gal	Loveland
Chaser Ultra		3.74 lb MCPA + 0.18 lb dicamba + 0.78 lb dichlorprop/gal	Loveland
Chaser Ultra 2		3.2 lb MCPA + 0.32 lb fluroxypyr + 0.64 lb dichlorprop/gal	Loveland
Chateau	flumioxazin		
Cheat Stop	atrazine		
Cheyenne		0.79 lb fenoxaprop + 4 lb MCPA/gal	Bayer
Chipco Turf Clean		1 lb mecoprop + 1 lb 2,4-D/gal	Bayer
Chiptox	MCPA sodium salt		
Chisum		48% metsulfuron + 15% chlorsulfuron/lb	Cheminova
Chlormet	metsulfuron		
Chlorsulf E-Pro	chlorsulfuron		Nufarm
Chopper	imazapyr		
Cimarron Max		Part A = metsulfuron; Part B = 1 lb dicamba + 2.87 lb 2,4-D/gal	DuPont
Cimarron Plus		48% metsulfuron + 15% chlorsulfuron/lb	DuPont
Cimarron X-tra		30% metsulfuron + 37.5% chlorsulfuron/lb	DuPont
Cinch	S-metolachlor		
Cinch ATZ		3.33 lb S-metolachlor + 2.67 lb atrazine/gal	DuPont
Cinch ATZ Lite		2.4 lb S-metolachlor + 3.1 lb atrazine/gal	DuPont
Cinco	glyphosate		
Ciramet	metsulfuron		
Clarion		37.5% nicosulfuron + 37.5% rimsulfuron/lb	DuPont
Clarity	dicamba		
Clean Amine	2,4-D		
Clean Pasture	metsulfuron		
Clean Slate	clopyralid		
CleanWave		0.085 lb aminopyralid + 1.2 lb fluroxypyr/gal	Dow
Clearcast	imazamox		
Clearmax		1 lb imazamox/gal + 3.7 lb MCPA/gal (copack)	BASF
ClearOut	glyphosate		
Clethodim	clethodim		

**HERBICIDE NAMES AND MIXTURES (contd.)**

Trade Name	Common Name	Herbicides in Mixture	Mfgr.
Clopyr Ag	clopyralid		
Clopyralid 3	clopyralid		
Cobra	lactofen		
Cody		0.38 lb clopyralid + 2 lb 2,4-D/gal	Alligare
Colt		0.75 lb clopyralid + 0.75 lb fluroxypyr/gal	Loveland
Colt + Salvo		0.75 lb fluroxypyr + 3 lb 2,4-D/gal	UAP
Colt + Salvo		0.75 lb fluroxypyr + 3 lb 2,4-D/gal	UAP
Colt + Sword		0.71 lb fluroxypyr + 2.84 lb MCPA/gal	UAP
Comet	fluroxypyr		Nufarm
Command	clomazone		
Commando		0.38 lb clopyralid + 2 lb 2,4-D/gal	Albaugh
Commando M		0.42 lb clopyralid + 2.35 lb MCPA/gal	Albaugh
Confidence	acetochlor		
Confidence Xtra		4.3 lb acetochlor + 1.7 lb atrazine/gal	Winfield
Confidence Xtra 5.6L		3.1 lb acetochlor + 2.5 lb atrazine/gal	Winfield
Confront		2.25 lb triclopyr + 0.75 lb clopyralid/gal	Dow
Connect 20 WSP	bromoxynil		
Contour		0.38 lb imazethapyr + 3 lb atrazine/gal	BASF
Cool Power		56.14% dicamba + 5% MCPA + 3.6% triclopyr/gal	Nufarm Americas
Copper-Z 4/4	copper sulfate		
Cornerstone	glyphosate		
Corral 2.68 G	pendimethalin		
Corsair	chlorsulfuron		
Credit	glyphosate		
Credit Duo	glyphosate		
Credit Duo Extra	glyphosate		
Credit Extra	glyphosate		
Credit Master	glyphosate		
Credit Xtra Mixed Salt	glyphosate		
Credit Xtreme	glyphosate		
Crossbow		1 lb triclopyr ester + 2 lb 2,4-D ester/gal	Dow
Crossroad		2 lb 2,4-D + 1 lb triclopyr/gal	Albaugh
Cruise Control	dicamba		
Curbit	ethalfuralin		
Current	copper sulfate pentahydrate		
Curtail		0.38 lb clopyralid + 2 lb 2,4-D amine/gal	Dow
Curtail M		0.42 lb clopyralid + 2.35 lb MCPA/gal	Dow
Cutback		2 lb 2,4-D + 0.38 lb clopyralid/gal	Nufarm
Cutback M		2.35 lb MCPA + 0.42 lb clopyralid/gal	Nufarm
Cycle		2 lb metolachlor + 2.67 lb atrazine/gal	Syngenta
Cyclone	paraquat		
D-638	2,4-D		
Daconate	MSMA		
Dacthal	DCPA		
Dagger	MCPA		

**HERBICIDE NAMES AND MIXTURES (contd.)**

Trade Name	Common Name	Herbicides in Mixture	Mfgr.
Dakota		0.234 lb fenoxaprop + 2.8 lb MCPA/gal	Bayer
Dally	triasulfuron		Wilbur-Ellis
DB 7500	2,4-DB		
Deal Plus	glyphosate		Tenkoz
Debit TMF	glyphosate		
Define	flufenacet		
Degree	acetochlor		
Degree Extra		2.7 lb acetochlor + 1.34 lb atrazine/gal	Monsanto
Derby		4% metolachlor + 1% simazine/lb	Syngenta
Derringer	glufosinate		
Devrinol	napropamide		
Diablo	dicamba		
DiCam	dicamba		
Dicamba	dicamba		
Dicamba DMA	dicamba		
Dicamba SG	dicamba		
Dimension	dithiopyr		
Dimension Ultra	dithiopyr		
Diquash	diquat		
Diquat	diquat		
Direx	diuron		
Discover	clodinafop		
Discover NG	clodinafop		
Dismiss	sulfentrazone		
Distinct		20% diflufenzopyr + 50% dicamba/lb	BASF
Dithiopyr	dithiopyr		
Diuron	diuron		
DMA 4 IVM	2,4-D amine		
DMTT	dazomet		
Double O E Pro		2% oxyfluorfen + 1% oryzalin/lb	Nufarm
Double Team		3.5 lb acetochlor + 1.78 lb atrazine/gal	Makhteshim
Double Up B+D		2 lb bromoxynil + 1.9 lb 2,4-D/gal	Helena
DoublePlay		1.4 lb acetochlor + 5.6 lb EPTC/gal	Syngenta
Dowfume	methyl bromide		
D-P Mix		0.65 lb phenmedipham + 0.65 lb desmedipham/gal	United Phosphorus
Drive	quinclorac		BASF
Dual	metolachlor		Syngenta
Dual II	metolachlor		Syngenta
Dual II Magnum	S-metolachlor		Syngenta
Dual Magnum	S-metolachlor		Syngenta
Duplikator 5.5 Plus	glyphosate		
Duramax	glyphosate		
Durango	glyphosate		
Dyclomec	dichlobenil		
Dynamo 40WSP	dithiopyr		

**HERBICIDE NAMES AND MIXTURES (contd.)**

Trade Name	Common Name	Herbicides in Mixture	Mfgr.
E-99	2,4-D		
Eagre	glyphosate		
Echelon 4SC		27.3% prodiamine + 13.6% sulfentrazone/gal	FMC
Ecomazapyr	imazapyr		
Ecotriclopyr	triclopyr		
Edict	pyraflufen-ethyl		
Edict 2SC IVM	pyraflufen-ethyl		
Edition Broadspec		25% tribenuron + 25% thifensulfuron/lb	Cheminova
Edition Tank Mix		10% tribenuron + 40% thifensulfuron/lb	Cheminova
Endothal	endothall		
EndRun		2.38 lb 2,4-D + 0.63 lb mecoprop + 0.21 lb dicamba/gal	Helena
Endurance	prodiamine		
Engame		1.23 lb ae glyphosate + 9.1 lb monocarbamide dihydrogensulfate/gal	Loveland
Envert 171		0.95 lb 2,4-D + 1.125 lb dichlorprop/gal	Bayer
Envoy	clethodim		
Envoy Plus	clethodim		
Eptam	EPTC		Gowan
Eptek	EPTC		
Equip		30% foramsulfuron + 2% iodosulfuron/lb	Bayer
Eraser Surrender	glyphosate		
Escalade		3.2 lb 2,4-D + 0.8 lb fluroxypyr + 0.4 lb dicamba/gal	Nufarm
Escort	metsulfuron		
Establish	dimethenamid-P		
Establish ATZ		1.7 lb dimethenamid-P + 3.3 lb atrazine/gal	Tenkoz
Esteron 99	2,4-D, 2-ethylhexyl ester		
Etho SC	ethofumesate		
Ethofumesate	ethofumesate		Solera
Ethotron SC	ethofumesate		UPI
Evade	prodiamine		UAP
Everest	flucarbazone		
Evik	ametryn		
Evital	norflurazon		
Exceed		28.5% prosulfuron + 28.5% primisulfuron/lb	Syngenta
Expedite Grass & Weed	glyphosate		
Expert		1.74 lb S-metolachlor + 2.14 lb atrazine + 1 lb ai glyphosate/gal	Syngenta
Express	tribenuron		
Expresschem	glyphosate		
Extra Credit 5	glyphosate		
E-Z-Ject	glyphosate		
Factor	prodiamine		
Fallow Master		1.6 lb ae glyphosate + 0.4 lb dicamba/gal	Monsanto
Fallow Star		1.1 lb ae glyphosate + 0.5 lb dicamba/gal	Albaugh
Far-Go	triallate		Gowan
Field Master		2 lb acetochlor + 1.5 lb atrazine + 0.56 lb ae glyphosate/gal	Monsanto
Finale	glufosinate		

**HERBICIDE NAMES AND MIXTURES (contd.)**

Trade Name	Common Name	Herbicides in Mixture	Mfgr.
Finesse		62.5% chlorsulfuron + 12.5% metsulfuron/lb	DuPont
Finesse Grass & Broadleaf		25% chlorsulfuron + 44% flucarbazone/lb	DuPont
Fire Power		3 lb ae glyphosate + 0.25 lb oxyfluorfen/gal	Monsanto
Firestorm	paraquat		
First Act	acetochlor		
FiveStar	2,4-D		
Fluroxypyr	fluroxypyr		Nufarm
ForeFront		0.33 lb aminopyralid + 2.67 lb 2,4-D/gal	Dow
Forest Star	glyphosate		
Foresters'	glyphosate		Nufarm
Forestry Garlon 4	triclopyr		
Forestry Garlon XRT	triclopyr		
Formula 40	2,4-D amine		
Fortune	bentazon		
Four Power Plus	glyphosate		UAP
FreeHand		0.75% dimethenamid-P + 1% pendimethalin/lb	BASF
Frontier	dimethenamid		
Fuego		75% triasulfuron/lb + 4 lb dicamba/gal (copack)	Syngenta
FulTime		2.4 lb acetochlor + 1.6 lb atrazine/gal	Dow
Fusilade DX	fluazifop		
Fusion		2 lb fluazifop + 0.66 lb fenoxaprop/gal	Syngenta
Galigan Slapshot		2 lb oxyfluorfen + 1 lb glyphosate/gal	Makhteshim
Gallery	isoxaben		
Garden Weed Preventer	DCPA		
Galigan	oxyfluorfen		
Garlon	triclopyr		
Garrison	clopyralid		
Genate	butylate		
GF-2257	fluroxypyr + florasulam		Dow
Glean F.C.	chlorsulfuron		
Gly Star 5	glyphosate		
Gly Star Original	glyphosate		
Gly Star Plus	glyphosate		
Gly Star Pro	glyphosate		
Gly Supreme	glyphosate		
Gly-4	glyphosate		
Gly-4 Plus	glyphosate		
Glycamba		23.4% glyphosate; 4.1% dicamba/gal	
Glycana Plus 41	glyphosate		Arcana LLC
Gly-Flo	glyphosate		
Glyfos	glyphosate		
Glyfos X-tra	glyphosate		
Glygran	glyphosate		
GlyMax	glyphosate		
GlyMix		4 lb glyphosate + 0.4 lb 2,4-D/gal	Dow

**HERBICIDE NAMES AND MIXTURES (contd.)**

Trade Name	Common Name	Herbicides in Mixture	Mfgr.
Glyphogan	glyphosate		
GlyphoMate 41	glyphosate		
Glyphomax	glyphosate		
Glyphomax Plus	glyphosate		
Glyphomax XRT	glyphosate		
Glyphosate Original	glyphosate		
Glyphosate VMF	glyphosate		
Glypro	glyphosate		
Glypro Plus	glyphosate		
G-Max Lite		2.25 lb dimethenamid-P + 2.75 lb atrazine/gal	BASF
Goal	oxyfluorfen		
GoalTender	oxyfluorfen		
GoldSky		0.71 lb fluroxypyr + 0.018 lb florasulam + 0.11 lb pyroxsulam/ gal	Dow
Gramoxone Extra	paraquat		
Gramoxone Inteon	paraquat		
Gramoxone Max	paraquat		
Grandstand R	triclopyr		
Graslan	tebuthiuron		
Green Match EX	lemongrass oil		
Green Match O	d-limonene		
Guardrail 65WDG	prodiamine		Prokoz
Guardsman		2.33 lb dimethenamid-P + 2.67 lb atrazine/gal	BASF
Guardsman Max		1.7 lb dimethenamid-P + 3.3 lb atrazine/gal	BASF
Gullwing Aquatic	imazapyr		
Habitat	imazapyr		
Halex GT		2.09 lb S-metolachlor + 2.09 lb glyphosate + 0.209 lb mesotrione/gal	Syngenta
Halts Pro	prodiamine		
Harass	thifensulfuron		
Hardball	2,4-D		
Harmony	thifensulfuron		
Harmony Extra		33.33% thifensulfuron + 16.67% tribenuron/lb	DuPont
Harmony Extra SG		33.33% thifensulfuron + 16.67% tribenuron/lb	DuPont
Harmony Extra XP		50% thifensulfuron + 25% tribenuron/lb	DuPont
Harmony GT XP	thifensulfuron		
Harmony SG	thifensulfuron		
Harness	acetochlor		
Harness Xtra		4.3 lb acetochlor + 1.7 lb atrazine/gal	Monsanto
Harness Xtra 5.6 L		3.1 lb acetochlor + 2.5 lb atrazine/gal	Monsanto
Harrier	oryzalin		
Hat Trick	clopyralid/gal	1.8 lb MCPA + 0.51 lb fluroxypyr + 0.51	Loveland
Helosate Plus	glyphosate		
Herbicide 273	endothall		
Hi-Dep	2,4-D amine		

**HERBICIDE NAMES AND MIXTURES (contd.)**

Trade Name	Common Name	Herbicides in Mixture	Mfgr.
HiredHand P+D		0.54 lb picloram + 2 lb 2,4-D/gal	Dow
HM-0714	clethodim		Helena
Hoelon	diclofop methyl		
Honcho	glyphosate		
Hornet		23.1% flumetsulam + 62.5% clopyralid/lb	Dow
Hoss Ultra	glyphosate		
Hurdle	pendimethalin		
Huskie		3.3% pyrasulfotole + 26.3% bromoxynil/lb	Bayer
Hydrothol	endothall		
Hyvar X	bromacil		
Hyvar XL	bromacil		
Ignite	glufosinate		
Ignite 280	glufosinate		
Imazapic E 2 SL	imazapic		
Imazapyr	imazapyr		
Imazapyr 75XP	imazapyr		
Imazapyr E-Pro 4	imazapyr		
Imitator Plus	glyphosate		Drexel
Imitator Xtra	glyphosate		Drexel
Impact	topramezone		
Imperium			
Intensity	clethodim	5.6 lb EPTC + 1.4 lb acetochlor/gal	
INTRRO	alachlor		
Journey		0.75 lb imazapic + 1.5 lb ai glyphosate/gal	BASF
Jury	glyphosate		
Kamba	dicamba		
Kambamaster		12.4% dicamba + 35.7% 2,4-D/gal	
Karmex DF	diuron		
Kerb	pronamide		
Keystone		3 lb acetochlor + 2.25 lb atrazine/gal	Dow
Keystone LA		4 lb acetochlor + 1.5 lb atrazine/gal	Dow
Killzall	glyphosate		
KleenUp	glyphosate		Bonide
KleenUp Pro	glyphosate		Bonide
Knighthawk	prodiamine		
Knockout Extra	glyphosate		
Komeen	copper		
Kraken Aquatic	triclopyr		
Krenite S	fosamine		
Krovar I DF		40% bromacil + 40% diuron/lb	DuPont
K-Tea	copper		
Laddok		1.66 lb bentazon + 1.66 lb atrazine/gal	BASF
Landmark II MP		56.25% sulfometuron + 18.75% chlorsulfuron/lb	DuPont
Landmark MP		50% sulfometuron + 25% chlorsulfuron/lb	DuPont
Landmark XP		50% sulfometuron + 25% chlorsulfuron/lb	DuPont
Landmaster BW		0.9 lb ae glyphosate + 1.6 lb 2,4-D/gal	Monsanto

**HERBICIDE NAMES AND MIXTURES (contd.)**

Trade Name	Common Name	Herbicides in Mixture	Mfgr.
Landmaster II		0.9 lb ae glyphosate + 0.8 lb 2,4-D/gal	Monsanto
Lariat		2.5 lb alachlor + 1.5 lb atrazine/gal	Monsanto
Lasso	alachlor		
Latigo		1.8 lb acid dicamba + 2.4 lb acid 2,4-D/gal	Helena
Laudis	tembotrione		
Leadoff		2.33 lb dimethenamid + 2.67 lb atrazine/gal	DuPont
Lentagran	pyridate		
Lexar		1.74 lb S-metolachlor + 0.224 lb mesotrione + 1.74 lb atrazine/gal	Syngenta
Lexone	metribuzin		
Liberty	glufosinate		
Liberty ATZ		1 lb glufosinate + 3 lb atrazine/gal	Bayer
Lifeguard	dithiopyr		
Lightning		0.42 lb imazethapyr + 0.14 lb imazapyr/12.8-oz bottle	BASF
Lineage	imazapyr		
Lineage Clearstand		63.2% imazapyr + 9.5% metsulfuron/lb	DuPont
Lineage HWC		37.5% imazapyr + 28.1% sulfometuron + 7.5% metsulfuron/lb	DuPont
Lineage Prep		54.5% imazapyr + 15.3% sulfometuron + 4.1% metsulfuron/lb	DuPont
Linex	linuron		
Littora	diquat		
Lontrel	clopyralid		
Lorox	linuron		
Lumax		2.68 lb S-metolachlor + 1 lb atrazine + 0.268 lb mesotrione/gal	Syngenta
Mad Dog	glyphosate		
Mad Dog Plus	glyphosate		
Maestro 4EC	bromoxynil		Nufarm
Maestro Advanced		bromoxynil + MCPA/gal	Nufarm
Maestro MA		2 lb bromoxynil + 2 lb MCPA/gal	Nufarm
Magnacide H	acrolein		
Makaze	glyphosate		
Manor	metsulfuron methyl		
Mansion Turf Herbicide	metsulfuron		
Marksman		1.1 lb dicamba + 2.1 lb atrazine/gal	BASF
Matran EC		50% clove oil + 50% wintergreen oil, butyl lactate and lethicin/gal	EcoSmart
Matratec		50% clove oil + 50% wintergreen oil, butyl lactate and lecithin/gal	Brandt
Matrix	rimsulfuron		
Matrix SG	rimsulfuron		
Maverick	sulfosulfuron		
MCP amine	MCPA amine		
MCP Ester 4	MCPA		UAP
MCPP	mecoprop		
Mec Amine-D		2.44 lb 2,4-D + 1.3 lb MCPP + 0.22 lb dicamba/gal	Loveland
Mecomec 4	mecoprop, MCPP		
Mecopar	mecoprop		
Mecopex	mecoprop		
Medal	S-metolachlor		

**HERBICIDE NAMES AND MIXTURES (contd.)**

Trade Name	Common Name	Herbicides in Mixture	Mfr.
Medal II AT		3.1 lb atrazine + 2.4 lb S-metolachlor/gal	Syngenta
Metcel VMF	metsulfuron		AgSurf
Meth-O-Gas	methyl bromide		
Me-Too-Lachlor	metolachlor		
Metri DF	metribuzin		
Metribuzin 4L	metribuzin		
Metribuzin 75DF	metribuzin		
Metsulfuron 60EG	metsulfuron		
Metsulfuron Methyl 60DF	metsulfuron		
Meychem 41% Glyphosate	glyphosate		
Micro-Tech	alachlor		
Milestone	aminopyralid		
Milestone VM	aminopyralid		
Milestone VM Plus		0.1 lb aminopyralid + 1 lb triclopyr/gal	Dow
Millennium Ultra 2		3 lb 2,4-D + 0.183 lb clopyralid + 0.375 lb dicamba/gal	Nufarm
Millennium Ultra Plus		0.5 lb 2,4-D + 0.06 lb clopyralid + 0.06 lb dicamba + 1.8 lb MSMA/gal	Nufarm
Mirage	glyphosate		
Modown	bifenox		
Mojave 70EG		7.78% imazapyr + 62.22% diuron/lb	Alligare
Momentum FX		2.286 lb 2,4-D + 0.571 lb fluroxypyr + 0.229 lb triclopyr/gal	Lesco
Monobor chlorate-granular	borates		
Montor	cacodylic acid		
Moxy + Atrazine		1 lb bromoxynil + 2 lb atrazine/gal	Winfield
Moxy 2E	bromoxynil		
MSM 60	metsulfuron		
MSM E-AG	metsulfuron		
MSM E-Pro	metsulfuron		
Muster	ethametsulfuron		
Mylone	dazomet		
Nature's Avenger	d-limonene		
Nic-It	nicosulfuron		
Nicosh 75WDG	nicosulfuron		
Nimble		25% tribenuron + 50% thifensulfuron/lb	Cheminova
Norosac	dichlobenil		
NorthStar		7.5% primisulfuron + 39.9% dicamba/lb	Syngenta
Nortron	ethofumesate		
Nuance	tribenuron		
Oasis	imazapic		
Octane	pyraflufen-ethyl		
OH2		2% oxyfluorfen + 1% pendimethalin	Scotts
Olympus	propoxycarbazon		
Olympus Flex		6.75% propoxycarbazon + 4.5% mesosulfuron/lb	Bayer
OneStep		1.53 lb ae glyphosate + 0.637 lb imazapyr/gal	BASF
Opsight		0.525 lb aminopyralid + 0.0945 lb metsulfuron/lb	Dow

**HERBICIDE NAMES AND MIXTURES (contd.)**

Trade Name	Common Name	Herbicides in Mixture	Mfgr.
Opti-Amine	2,4-D		
OpTill		0.178 lb saflufenacil + 0.502 lb imazethapyr	BASF
Option	foramsulfuron		
Oracle	dicamba		
Orion		2.34 lb MCPA + 0.033 lb florasulam/gal	Syngenta
Ornamental Herbicide I	oxadiazon		
Ornamental Herbicide II		2% oxyfluorfen + 1% pendimethalin/lb	O.M. Scott
Ornery	glyphosate		
Ortho Weed B Gon Pro		2.7 lb 2,4-D + 0.64 lb mecoprop + 0.3 lb dicamba/gal	Nufarm
Oryza	oryzalin		
Oryzalin 4 Pro	oryzalin		
Oryzalin A.S.	oryzalin		
Osprey	mesosulfuron		
Oust	sulfometuron		
Oust Extra		56.25% sulfometuron + 15% metsulfuron/lb	DuPont
Outlaw		1.45 lb 2,4-D + 1.09 lb dicamba/gal	Albaugh
Outlook	dimethenamid-P		
OutPost 22K	picloram		
Outrider	sulfosulfuron		
Overdrive		50% dicamba + 20% diflufenzopyr/lb	BASF
Oxadiazon	oxadiazon		
Oxen	oxyfluorfen		
Oxiflo	oxyfluorfen		
OxyStar	oxyfluorfen		
Panoramic 2SL	imazapic		
Parallel	metolachlor		
Parallel PCS	metolachlor		
Parallel Plus		2.8 lb atrazine + 3.7 lb metolachlor/gal	Makhteshim
Paramount	quinclorac		
Parazone	paraquat		
Parrlay	metolachlor		
Partner	alachlor		
Pasture Pro	2,4-D		
PastureGard		1.5 lb triclopyr + 0.5 lb fluroxypyr/gal	Dow
Pasturemaster		1.9 lb 2,4-D + 1 lb dicamba/gal	Nufarm
Pathfinder II	triclopyr		
Pathway		3% picloram + 11.2% 2,4-D/gal	Dow
Patriot	metsulfuron		
Payload	flumioxazin		
PCA	pyrazon		
Peak	prosulfuron		
Pendant	pendimethalin		
Pendimax	pendimethalin		
Pendimethalin	pendimethalin		
Pendulum	pendimethalin		
Pennant	metolachlor		

**HERBICIDE NAMES AND MIXTURES (contd.)**

Trade Name	Common Name	Herbicides in Mixture	Mfr.
Pennant Magnum	S-metolachlor		
Pentagon	pendimethalin		
Permaguard		2% oxyfluorfen + 1% oryzalin/lb	Prokoz
Permit	halosulfuron		
Pestmaster	methyl bromide		
Phen	phenmedipham		
Phenaban 801		3.06 lb 2,4-D + 0.4 lb dicamba/gal	PBI/Gordon
Phoenix	lactofen		
Phen-Des 8+8		0.65 lb phenmedipham + 0.65 lb desmedipham/gal	United Phosphorus
Phenomec		2 lb mecoprop + 1 lb 2,4-D/gal	PBI/Gordon
Phytar	cacodylic acid		
Pinnacle	thifensulfuron		
Plateau	imazapic		
Plotter	metsulfuron		
PoaConstrictor	ethofumesate		
Poast	sethoxydim		
Poast Plus	sethoxydim		
Podium	trinexepac-ethyl		
Polaris	imazapyr		
Pondmaster Aquatic Herbicide	copper		
Pondmaster Copper Sulfate	copper sulfate		
Pondmaster Surface and Shoreline Herbicide	glyphosate		
Portfolio	sulfentrazone		
Power Zone		0.04 lb carfentrazone + 2.21 lb MCPA + 0.44 lb mecoprop + 0.22 lb dicamba/gal	PBI/Gordon
PowerFlex	pyroxsulam		
Pramitol	prometon		
Pramitol 5 PS		5% prometon + 0.75% simazine + 90% chlorateborate/lb	Syngenta
Pre Pair		2% oxadiazon + 4% napropamide/lb	Loveland
Predict	norflurazon		
Prefar	bensulide		
Pre-Pare	flucarbazone		Arysta LifeScience
Prescott		2.25 lb triclopyr + 0.75 lb clopyralid/gal	Alligare
Prestige	sethoxydim		
Primero	nicosulfuron		
Primo MAXX	trinexepac-ethyl		
Princep	simazine		
Priority		12.5% carfentrazone + 50% halosulfuron/lb	Tenkoz
Proclipse	prodiamine		
ProDeuce		40% glyphosate + 7.5% prodiamine/lb	Nufarm
Prograss	ethofumesate		
Progress		0.6 lb phenmedipham + 0.6 lb desmedipham + 0.6 lb ethofumesate/gal	Bayer

**HERBICIDE NAMES AND MIXTURES (contd.)**

<b>Trade Name</b>	<b>Common Name</b>	<b>Herbicides in Mixture</b>	<b>Mfgr.</b>
Prometryne	prometryn		
Prompt		2.5 lb bentazon + 2.5 lb atrazine/gal	TopPro
Pronamide	pronamide		
Pronone	hexazinone		
Pronto	glyphosate		
Pronto Big N'Tuf	glyphosate		
Prosecutor	glyphosate		
Prosecutor Swift Acting		0.66 lb ae glyphosate + 0.03 lb dicamba/lb	Lesco
Protocol	glyphosate		
Prowl	pendimethalin		
Prowl H2O	pendimethalin		
Proxy	ethephon		
Puma	fenoxaprop		
Pursuit	imazethapyr		
Pursuit Plus		0.2 lb imazethapyr + 2.9 lb pendimethalin/gal	BASF
Pyramid R&P	clopyralid		
Pyramin	pyrazon		
Python	flumetsulam		
Q4 Turf Herbicide		0.5 lb quinclorac + 0.06 lb sulfentrazone + 0.88 lb 2,4D + 0.1 lb dicamba/gal	PBI/Gordon
Quali-Pro Prodiamine	prodiamine		
QuickSilver	carfentrazone		
Quik-Fire	fatty acids		
QuikPRO		0.73 lb glyphosate + 0.03 lb diquat/lb	Monsanto
Quincept		1 lb 2,4-D + 0.125 lb dicamba + 0.75 lb quinclorac/gal	Nufarm
Quinclorac	quinclorac		
QuinStar 4L GT	quinclorac		
Racer	ammonium nonanoate		
Rad-E-Cate	cacodylic acid		
Rage D-Tech		0.13 lb carfentrazone + 3.93 lb 2,4-D/gal	FMC
Ramrod	propachlor		
Ramrod/Atrazine		3 lb propachlor + 1 lb atrazine/gal	Monsanto
Ranger	glyphosate		
Ranger Pro	glyphosate		
RangeStar		2.87 lb 2,4-D + 1 lb dicamba/gal	Albaugh
RapidFire	glyphosate		Dow
Rapport BroadSpec		25% tribenuron + 25% thifensulfuron/lb	Nufarm
Rapport TankMix		10% tribenuron + 40% thifensulfuron/lb	Nufarm
Raptor	imazamox		
Rascal	glyphosate		
Rattler	glyphosate		
Rave		8.8% triasulfuron + 50% dicamba/lb	Syngenta
Razencane	EPTC		
Razor	glyphosate		
Razor Burn		3 lb ae glyphosate + 0.11 lb diquat/gal	Nufarm
Razor SPI	glyphosate		

**HERBICIDE NAMES AND MIXTURES (contd.)**

Trade Name	Common Name	Herbicides in Mixture	Mfr.
Ready Master ATZ		1.5 lb ae glyphosate + 2 lb atrazine/gal	Monsanto
Recoil		1.58 lb glyphosate + 1.07 lb 2,4-D/gal	Nufarm
Redeem R&P		2.25 lb triclopyr + 0.75 lb clopyralid/gal	Dow
RedWing	diquat		
Refute		0.75 lb clopyralid + 1 lb triclopyr/gal	Albaugh
Regal Ronstar A.C.		2% oxadiazon with fertilizer	Regal
RegalKade G	prodiamine		
RegalO-O Herbicide		2% oxyfluorfen + 1% oxadiazon/lb	Regal
RegalStar G		1% oxadiazon + 0.2% prodiamine/lb	Regal
RegalStar II		1% oxadiazon + 0.2% prodiamine/lb	Regal
Reglone	diquat		
Relegate	triclopyr		
Rely	glufosinate		
Remedy	triclopyr		
Remove	glufosinate		
Remuda	glyphosate		
Renovate	triclopyr		
Renovate OTF	triclopyr		
Report	chlorsulfuron		
Report Extra		62.5% chlorsulfuron + 12.5% metsulfuron/lb	Cheminova
Repose	pendimethalin		
Require Q (mp)		48.2% dicamba + 6.25% rimsulfuron/lb	DuPont
Resolute	prodiamine		
Resolve DF	rimsulfuron		
Resolve Q (mp)		18.4% rimsulfuron + 4% thifensulfuron/lb	DuPont
Resolve SG	rimsulfuron		
Resource	flumiclorac		
Retard	MH		
Reward	diquat		
Rezult B	bentazon		
Rezult G	sethoxydim		
Rhino		2.5 lb bromoxynil + 1.9 lb MCPA/gal	Bayer
Rhomene	MCPA amine		
Rhonox	MCPA ester		
Rifle	dicamba		
Rifle Plus		1.1 lb dicamba + 2.1 lb atrazine/gal	Loveland
Rifle-D		2.87 lb 2,4-D + 1 lb dicamba/gal	Loveland
Rimfire		8.14% propoxycarbazone + 2.03% mesosulfuron/lb	Bayer
Rodeo	glyphosate		
Rometsol	metsulfuron		
Ro-Neet	cycloate		
Ronstar	oxadiazon		
Rotary 2SL	imazapyr		
Roundup	glyphosate		
Roundup Drypak	glyphosate		
Roundup Power Max	glyphosate		

## HERBICIDE NAMES AND MIXTURES (contd.)

Trade Name	Common Name	Herbicides in Mixture	Mfgr.
Roundup PRODry	glyphosate		
Roundup ProMax	glyphosate		
Roundup QuikStik	glyphosate		
Roundup RT	glyphosate		
Roundup SoluGran	glyphosate		
Roundup Ultra	glyphosate		
Roundup Ultra RT	glyphosate		
Roundup UltraDry	glyphosate		
Roundup UltraMax	glyphosate		
Roundup Weather Max	glyphosate		
Rout		2% oxyfluorfen + 1% oryzalin/lb	Scotts
RT 3	glyphosate		
RT Master	glyphosate		
Ruler	glyphosate		
Saber	2,4-D		
Sahara		7.78% imazapyr + 61.9% diuron/lb	BASF
Salvo	2,4-D ester		
Sandea	halosulfuron		Gowan
Sapphire	penoxsulam		
Savage	2,4-D amine		
Scepter	imazaquin		
Scorpion III		9.3% flumetsulam + 25% clopyralid + 50% 2,4-D/lb	Dow
Scythe	pelargonic acid		
Section 2 EC	clethodim		
SedgeHammer	halosulfuron		Gowan
See MCPA	MCPA		
Select	clethodim		
Select Max	clethodim		
Sempra	halosulfuron		
Sencor	metribuzin		
Sequence		2.25 lb glyphosate + 3 lb S-metolachlor/gal	Syngenta
Sethoxydim	sethoxydim		
SFM + MSM E-Pro		56.25% sulfometuron + 15% metsulfuron/lb	Nufarm
SFM 75	sulfometuron		
SFM Extra		15% metsulfuron + 56.25% sulfometuron-methyl/lb	Alligare
Shadow	clethodim		
Shore-Killer	glyphosate		
Shore-Klear	glyphosate		
Shotgun F		2.25 lb atrazine + 1 lb 2,4-D ester/gal	Loveland
Showcase		2% trifluralin + 0.25% isoxaben + 0.25% oxyfluorfen/lb	Dow
Showdown	glyphosate		
Shroud	alachlor		
ShutOut		1.6 lb 2,4-D + 0.5 lb mecoprop + 0.05 lb carfentrazone/gal	Helena
Silhouette	glyphosate		
Simazine	simazine		
Sim-Trol	simazine		

## HERBICIDE NAMES AND MIXTURES (contd.)

Trade Name	Common Name	Herbicides in Mixture	Mfg.
Sinbar	terbacil		
Slay	imazethapyr		
SMDC	metham		
Snapback	acifluorfen		
Snapshot 2.5TG		0.5% isoxaben + 2% trifluralin/lb	Dow
Snapshot 80DF		20% isoxaben + 60% oryzalin/lb	Dow
Sodium borates	borates		
Soil Clean-Up	metham		
Soil Fumigant-1	methyl bromide		
Soil-Prep	metham		
Solicam	norflurazon		
Solution Water Soluble	2,4-D		
Solventless Ester 4	2,4-D ester		
Sonalan	ethalfluralin		
Sonar	fluridone		
SonarOne	fluridone		
Sonora	prometon		
Sortie	dimethenamid-P		Helena
Sortie ATZ		1.7 lb dimethenamid-P + 3.3 lb atrazine/gal	
Sortie ATZ Lite		2.25 lb dimethenamid-P + 2.75 lb atrazine/gal	Helena
Spartan	sulfentrazone		
Spartan Advance		0.56 lb sulfentrazone + 3 lb ae glyphosate/gal	FMC
Spartan Charge		0.35 lb carfentrazone + 3.15 lb sulfentrazone/gal	FMC
Speed Zone		0.05 lb carfentrazone + 1.53 lb 2,4-D + 0.48 lb mecoprop + 0.14 lb dicamba/gal	PBI/Gordon
Spike	tebuthiuron		
Spike Treflan 6 G		2% tebuthiuron + 4% trifluralin/lb	Dow
Spin Out	copper hydroxide		
Spin-Aid	phenmedipham		
Spirit		14.2% prosulfuron + 42.8% primisulfuron/lb	Syngenta
Spoiler		2.69 lb 2,4-D + 0.71 lb dichlorprop + 0.71 lb mecoprop/gal	Nufarm
Spotlight	fluroxypyr		
Sprout Nip	chlorpropham		
Sprout Stop	MH		
Spur	clopyralid		
Spyder	sulfometuron		
Squadron		2 lb pendimethalin + 0.33 lb imazaquin/gal	BASF
Stalker	imazapyr		
Stalwart C	metolachlor		
Stalwart Xtra		3.1 lb atrazine + 2.4 lb metolachlor/gal	Sipcam
Stam	propanil		
Starane	fluroxypyr		
Starane + Esteron		0.75 lb fluroxypyr + 3 lb 2,4-D/gal	Dow
Starane + MCPA		0.71 lb fluroxypyr + 2.84 lb MCPA/gal	Dow
Starane + Saber		0.5 lb fluroxypyr + 2 lb 2,4-D/gal	Dow
Starane + Salvo		0.75 lb fluroxypyr + 3 lb 2,4-D/gal	Dow

## HERBICIDE NAMES AND MIXTURES (contd.)

Trade Name	Common Name	Herbicides in Mixture	Mfgr.
Starane + Sword		0.71 lb fluroxypyr + 2.84 lb MCPA/gal	Dow
Starane NXT		0.583 lb fluroxypyr + 2.33 lb bromoxynil/gal	Dow
Starane NXTcp		1.5 lb fluroxypyr/gal + 2 lb bromoxynil/gal (copack)	Dow
Starane Ultra	fluroxypyr		
Starfighter		oxadiazon	Phoenix Environmental
Starfighter L		oxadiazon	Phoenix Environmental
Status		16% diflufenzopyr + 40% dicamba/lb	BASF
Steadfast		50% nicosulfuron + 25% rimsulfuron/lb	DuPont
Steadfast ATZ		2.7% nicosulfuron + 1.3% rimsulfuron + 85.3% atrazine/lb	DuPont
Stealth	pendimethalin		
Sterling	dicamba		
Sterling Plus		1.1 lb dicamba + 2.1 lb atrazine/gal	Winfield
Stinger	clopyralid		
Stingray	carfentrazone		
Stonewall	prodiamine		
Stout (mp)		67.5% nicosulfuron + 5% thifensulfuron/lb (copack)	DuPont
Strategy		0.5 lb clomazone + 1.6 lb ethalfluralin/gal	Loveland
Strike 3 Ultra		3.2 lb 2,4-D + 0.4 lb fluroxypyr + 0.8 lb dichlorprop/gal	Winfield
StrikeOut	glyphosate		
Sulfomet	sulfometuron		
Sulfomet Extra		15% metsulfuron + 56.25% sulfometuron/lb	AgSurf
Sulfomet XP	sulfometuron		
Super Trimec		2 lb 2,4-D + 2 lb dichlorprop + 0.5 lb dicamba/gal	PBI/Gordon
Superquik	monocarbamide dihydrogensulfate		
Supersate	glyphosate		
Surefire		2 lb paraquat + 1 lb diuron/gal	Loveland
SureGuard	flumioxazin		
SureStart		3.75 lb acetochlor + 0.38 lb clopyralid + 0.12 lb flumetsulam/gal	Dow
Surflan	oryzalin		
Surge		0.06 lb sulfentrazone + 1.4 lb 2,4-D + 0.5 lb mecoprop + 0.22 lb dicamba/gal	PBI/Gordon
Surmount		0.67 lb picloram + 0.67 fluroxypyr/gal	Dow
Surpass	acetochlor		
Sutan	butylate		
Sword	MCPA ester		
Tahoe	triclopyr		
Tailspin		0.33 lb fluroxypyr + 1 lb triclopyr/gal	Loveland
Targa	quizalofop		Gowan
Team 2G		1.33% benefin + 0.67% trifluralin/lb	Dow
Teamwork	carfentrazone		
Telar DF	chlorsulfuron		
Tenacity	mesotrione		
Thief	thifensulfuron		(UAP)
Thifen E-AG 75WDG	thifensulfuron		

**HERBICIDE NAMES AND MIXTURES (contd.)**

Trade Name	Common Name	Herbicides in Mixture	Mfr.
Thistrol	MCPB		
Throttle XP		9% chlorsulfuron + 18% sulfometuron + 48% sulfentrazone/lb	DuPont
Thunder	imazethapyr		
Tie Down		8.8% triasulfuron + 55% dicamba/lb	Wilbur-Ellis
Tillam	pebulate		
Tiller		0.44 lb fenoxaprop + 0.58 lb 2,4-D + 1.75 lb MCPA/gal	Bayer
TNT Broadleaf Herbicide		25% tribenuron + 50% thifensulfuron/lb	Gowan
T-Nex 1AQ	trinexpac-ethyl		
TopNotch	acetochlor		
Tordon 101		0.54 lb picloram + 2 lb 2,4-D/gal	Dow
Tordon 22K	picloram		
Tordon K	picloram		
Tordon RTU		3% picloram + 11.2% 2,4-D/gal	Dow
Touchdown	glyphosate		
Touchdown CF	glyphosate		
Touchdown CT	glyphosate		
Touchdown Hi-Tech	glyphosate		
Touchdown IQ	glyphosate		
Touchdown Total	glyphosate		
Tough	pyridate		
Transline	clopyralid		
Trans-Vert	MSMA		
Traxion	glyphosate		
Treaty	thifensulfuron		
Treaty Extra		25% tribenuron + 50% thifensulfuron/lb	Nufarm
Treflan	trifluralin		
Tri-4	trifluralin		
Triangle		2.7 lb atrazine + 3.2 lb metolachlor/gal	Tenkoz
TriAP	trifluralin		
Tricopyr	tricopyr		
TriCor	metribuzin		
Trific	trifluralin		
Trifluralin	trifluralin		
Triflurex	trifluralin		
Trigger	clethodim		
Trilin	trifluralin		
Trimec 992		2.44 lb 2,4-D + 1.3 lb mecoprop + 0.22 lb dicamba/gal	PBI/Gordon
Trimec Broadleaf		2.03 lb 2,4-D + 1.08 lb mecoprop + 0.21 lb dicamba/gal	PBI/Gordon
Trimec Broadleaf Herbicide - Bentgrass Formula		1.46 lb mecoprop + 0.45 lb 2,4-D + 0.19 lb dicamba/gal	PBI/Gordon
Trimec Turf Ester		2 lb 2,4-D + 2 lb dichlorprop + 0.5 lb dicamba/gal	PBI/Gordon
Triple Shot		4 lb MCPA + 0.4 lb fluroxypyr + 0.4 lb dicamba/gal	Wilbur-Ellis
Triplet Low Odor		2.38 lb 2,4-D + 0.63 lb mecoprop + 0.22 lb dicamba/gal	Nufarm
Triplet SF		2.38 lb 2,4-D + 0.63 lb mecoprop + 0.22 lb dicamba/gal	Nufarm
Triumph 22K	picloram		
Triumph K	picloram		

## HERBICIDE NAMES AND MIXTURES (contd.)

Trade Name	Common Name	Herbicides in Mixture	Mfgr.
Trooper 101		0.54 lb picloram + 2 lb 2,4-D/gal	Nufarm
Trooper 22K	picloram		
Trooper Extra		0.5 lb picloram + 0.5 lb dicamba + 2 lb 2,4-D/gal	Nufarm
Trooper P+D		0.54 lb picloram + 2 lb 2,4-D/gal	Nufarm
TruPower2		2.45 lb 2,4-D + 0.31 lb dicamba + 0.61 lb mecoprop/gal	Nufarm
Truslate		0.75 lb fluroxypyr + 0.75 lb clopyralid/gal	Nufarm
Trust	trifluralin		
T-Square		25% tribenuron + 50% thifensulfuron/lb	AgSurf
Tupersan	siduron		Gowan
Turbo		1.45 lb metribuzin + 6.55 lb metolachlor/gal	Bayer
Turf Herbicide	mecoprop		
Turf Weed & Brush Control		1.71 lb 2,4-D + 0.87 lb dichlorprop/gal	Nufarm
Turflon D		1 lb triclopyr + 2 lb 2,4-D/gal	Dow
Turflon ester	triclopyr		
Turflon II Amine		1.07 lb triclopyr + 2.78 lb 2,4-D/gal	Dow
Two OX E-Pro		2% oxyfluorfen + 1% oxadiazon/lb	Nufarm
Ultima 160	sethoxydim		
Unison	2,4-D acid		
Unity	thifensulfuron		
UpBeet	triflurosulfuron		
Ureabor		66.5% metaborate + 30% sodium chlorate + 1.5% bromacil/lb	Pro-Serve
Valor	flumioxazin		
Valuron	metsulfuron		
Vanquish	dicamba		
Vantage	sethoxydim		
Vapam	metham		
Vegemec		3.6% prometon + 1% 2,4-D + 76% petroleum distillates/gal	PBI/Gordon
Vegetable Pro	prometryn		
Vegetation Manager Metsulfuron	metsulfuron		
Velocity	bispyribac-sodium		
Velossa	hexazinone		Helena Chemical Company
Velpar	hexazinone		
Velpar AlfaMax		35.3% hexazinone + 42.4% diuron/lb	DuPont
Velpar AlfaMax Gold		23.1% hexazinone + 55.4% diuron/lb	DuPont
Velpar DF	hexazinone		
Velpar L	hexazinone		
Velpar ULW	hexazinone		
Vendetta		2 lb bromoxynil + 2 lb MCPA/gal	Wilbur-Ellis
Vengeance		1.25 lb dicamba + 2.5 lb 2,4-D/gal	Wilbur-Ellis
Vengeance Plus		3.72 lb MCPA + 0.75 lb triclopyr + 0.75 lb dichlorprop/gal	Wilbur-Ellis
Venue	pyraflufen		
Veto	dichlobenil		
Victory	tribenuron		

**HERBICIDE NAMES AND MIXTURES (contd.)**

Trade Name	Common Name	Herbicides in Mixture	Mfr.
Vida	pyraflufen		Gowan
Vida	pyraflufen		Gowan
Vine-Der	2,4-DB amine		
Vision	dicamba acid		
Vista	fluroxypyr		
Volley	acetochlor		
Volley ATZ		3 lb acetochlor + 2.25 lb atrazine/gal	Tenkoz
Volley ATZ Lite		4 lb acetochlor + 1.5 lb atrazine/gal	Tenkoz
Volta	thifensulfuron		
Volunteer	clethodim		
WecoMax		2 lb bromoxynil + 2.5 lb 2,4-D/gal	Bayer
Weed Blast		4% diuron + 4% bromacil/lb	Loveland
Weed Pharm Weed & Grass Killer	acetic acid		
Weed Stopper	oryzalin		
Weed Stopper II	trifluralin		
Weed Zap	cinnamon and clove oil		
Weedar 64	2,4-D amine		
Weedazol	amatol		
Weed-E-Rad	DSMA		
Weedestroy AM-40	2,4-D amine		
Weedfree 63	oxyfluorfen		
Weedfree 75		2% oxyfluorfen + 3% trifluralin/lb	Harrell's
Weedmaster		1 lb dicamba + 2.8 lb 2,4-D/gal	BASF
Weedone 638	2,4-D ester		
Weedone 650	2,4-D ester		
Weedone LV-4	2,4-D ester		
Weedone LV-6	2,4-D ester		
Weed-Rhap	2,4-D amine		
Westar		68% hexazinone + 6.5% sulfometuron/lb	DuPont
WideMatch		0.75 lb fluroxypyr + 0.75 lb clopyralid/gal	Dow
WideMatch M		1.5 lb fluroxypyr + 0.42 lb clopyralid + 2.35 lb MCPA/gal	Dow
Wildcard	MCPA		
WildCard XTRA		2 lb bromoxynil + 2 lb MCPA/gal	Helena
Wil-Power		3.72 lb MCPA + 0.75 lb triclopyr + 0.75 lb dichlorprop/gal	Wilbur-Ellis
Wise Up Plus	glyphosate		
Wolfpack 5		2.5 lb bromoxynil + 2.5 lb MCPA/gal	Tenkoz
Wolfpack Advanced		2.5 lb bromoxynil + 2.5 lb MCPA/gal	Tenkoz
Wolverine		0.17 lb pyrasulfotole + 0.38 lb fenoxaprop + 0.83 lb bromoxynil/gal	Bayer
WOW	corn gluten meal		
XL 2 G		1% benefin + 1% oryzalin/lb	Dow
Xylene	petroleum distillate		
Yukon		12.5% halosulfuorn + 55% dicamba/lb	Gowan
Zorial	norflurazon		

# Restricted-use Herbicides in Idaho, Oregon, and Washington

Andrew Hulting

*Revised November 1, 2009*

The active ingredients listed below are designated as restricted-use by the U.S. Environmental Protection Agency (EPA); buying them requires a certified pesticide applicator's license.

Herbicides are listed by the active ingredient. Some or all uses of these active ingredients are considered restricted-use. Before purchasing any pesticide, consult the label for usage category.

acetochlor  
acrolein  
alachlor  
atrazine  
diclofop-methyl  
methyl bromide  
paraquat  
phenmedipham  
picloram  
pronamide

## Additional Restricted-use Herbicides in the PNW

Some or all uses of the following herbicide active ingredients are classified as restricted-use in one or more of the three PNW states in addition to the federal restricted-use pesticides listed in the sidebar. Before purchasing any pesticide, consult the label for usage category and site.

- All aquatic uses of herbicides in Washington
- All sulfonyleurea herbicides in Washington
- 2,4-D
- 2,4-DB
- benefin
- bromacil
- bromoxynil
- carfentrazone
- chloresulfuron
- clopyralid
- copper sulfate
- DCPA
- dicamba
- dichlobenil
- dichloroprop
- dichlorpropene
- diflufenzopyr
- diquat
- diuron
- ethametsulfuron
- fenoxaprop
- fluazifop
- flufenacet
- fluroxypyr
- glyphosate
- hexazinone
- iodosulfuron
- imazamox
- imazapyr
- MCPA
- MCPB
- MCPP
- mesosulfuron
- metam-sodium
- metribuzin
- metsulfuron
- MSMA
- nicosulfuron
- primisulfuron
- prometon
- prosulfuron
- rimsulfuron
- S-metolachlor
- simazine
- sodium chlorate
- sodium metaborate
- sulfometuron-methyl
- sulfosulfuron
- tebuthiuron
- thifensulfuron
- triasulfuron
- tribenuron
- triclopyr
- trifluralin
- triflusulfuron

# Testing for and Deactivating Herbicide Residues\*

Ed Peachey

*Reviewed December 29, 2009*

Residues of triazine herbicides (such as atrazine and simazine) or of substituted urea herbicides (such as linuron and diuron) may persist in the soil for long periods. Attempts have been made to correlate residue persistence with rainfall, temperature, soil characteristics, cultivation practices, method and time of herbicide application, and rate of application. Thus far, however, predicting the extent of residue damage to sensitive crops the year following residual herbicide applications has been only partially successful.

This method is not adequate for, and does not pertain to, testing for sulfonyleurea herbicides such as those in Glean, Finesse, and Ally. Consult manufacturer's label for recommended bioassay method.

## Testing for Herbicide Residues

Chemical analyses for herbicide residues are slow and quite complicated. Such tests can be done in only a few specialized laboratories and usually are expensive. Biological assays are more feasible, since they can be done with simple equipment found in most homes or offices. Although the biological assay outlined here does not provide an exact measure of the amount of residue in the soil, the assay will indicate whether the residue is enough to harm sensitive crops. The bioassay for atrazine (using oats as a test species) was published in the December 1967 issue of *Crops and Soils*. That method can also be adapted to test for other residues.

1. Secure a representative soil sample from the field you suspect has atrazine residue. Sample from several locations, as when collecting soil samples to determine fertilizer requirements. Atrazine residue may be in patches of a field. Sample enough areas to avoid missing ones with a high residue. Headlands and knolls often show the greatest residue injury. Take separate samples from areas where residues may be excessive. Always sample to the full depth of the plow slice, whether or not the field is plowed. Remember that the assay is only as reliable or representative as the samples. Each sample to be assayed requires about 10 lb of soil.
2. Assay samples within a week or two after they are collected from the field. If the samples cannot be assayed immediately, store the soil in a cold place — in a freezer if possible. When samples are stored indoors under warm conditions, the atrazine residue may be lost.
3. If the soil is wet, spread it out and allow it to dry so it can be worked readily. If the soil is cloddy, crush clods to the size of peas or wheat seed, but do not pulverize the soil.
4. Adding about 50% by volume of coarse sand will improve the physical condition of silt and clay soils. If sand is added, mix with the soil properly.
5. Add about 0.5 g of activated carbon to half (5 lb) of the soil or of soil-sand mixture. Mix carbon and soil thoroughly. Carbon deactivates atrazine or other residue. For purposes of comparison, soil treated this way provides the

equivalent of soil without residue.

6. Partially fill two containers with soil that does not contain carbon and two others with the soil-carbon mixture. These should be containers holding about a pint to a quart. Punch holes in the bottom of the containers to allow drainage. Tin cans, paper milk cartons, or ice cream cartons are satisfactory for this purpose.
7. Plant five to eight oat seeds (or seeds of vegetable species of interest) in each container; cover seeds with about 0.5 inch of soil. Wet the soil with water but do not saturate. After emergence, thin to three plants to ensure maximum uptake or absorption of possible residue.
8. Place containers where they will be warm (about 70 to 75°F) and get as much sunlight as possible. Sunlight usually is essential for the development of atrazine injury symptoms. Artificial light is much less intense than sunlight and may not be satisfactory for symptom development.
9. Injury symptoms on seedlings should appear about 3 wk after planting. If temperatures are below 70°F, more time is required. Water plants sparingly. Do not allow soil to dry out.
10. Severe triazine injury is characterized by drooping leaves and by leaf-kill that extends from the leaf tip toward the base. Leaf-kill indicates a significant amount of residue in the soil. A marginal residue content will stunt the oats' growth without killing the leaves. Stunting can be determined by comparing the growth of oats in soil with carbon. Oats grown in soil with carbon should be normal and should show no atrazine injury or stunting, unless extremely high residues of atrazine are in the soil sample.
11. If the oats show any evidence of leaf-kill or stunting, plant an atrazine-tolerant crop in the field from which the samples were obtained.

## Using Activated Charcoal

Activated charcoal (or carbon) can reduce herbicide contamination in specific areas (gardens, greenhouses, lawns, etc.) and can also be used as a root dip to protect transplants (tomatoes, peppers, strawberries, ornamentals, etc.) from triazine or substituted urea herbicides. Activated carbon can also be used to "clean up" pesticide spills.

Other herbicides that carbon can deactivate include trifluralin (Treflan), bromacil (Hyvar X), benfen (Balan), bensulide (Betasan and Prefar), DCPA (Dacthal), dichlobenil (Casoron or Norosac), EPTC (Eptam), 2,4-D, terbacil (Sinbar), and chloroacetamide herbicides such as metolachlor or dimethenamid.

Activated carbon, used in a wide range of applications in diverse industries, is made by heating or chemically treating organic matter to create a porous structure. This gives a large surface area within a relatively small volume. Most activated carbon products are purified by acid and water washes to remove impurities and are available in both granular and powdered form. Charcoal for outdoor grills and the like cannot be ground up to achieve the same pore structure characteristics of activated charcoal on a pound-for-pound basis.

---

\* With permission from H. J. Hopen, Horticulture Facts, VC-15-81, Cooperative Extension Service, University of Illinois, Urbana-Champaign, IL 61801.

The usefulness of activated carbon is based primarily on its ability to absorb molecules into its vast pore structure. The phenomenon of adsorption can take place either in gaseous or liquid phase systems. Adsorption is often selective when applied to systems containing more than one component, for example when using activated carbon in gas masks to remove poisonous vapors, and as an antidote for ingested poisons.

### **Where to Obtain Activated Charcoal**

Some garden supply centers carry packaged activated carbon that is designed for the uses outlined here. Several brands of a similar type of carbon are available.

Activated carbon is used extensively in dry cleaning and water-purification. Usually, the names of local distributors can be found in the Yellow Pages under "Cleaners and Driers' Supplies," by contacting a dry cleaning establishment, or by searching the Internet (e.g., GROW-SAFE at <http://www.buyactivatedcharcoal.com/product/GRO>). Some dry-cleaning carbons may contain additives that will make them unsuitable.

Local businesses are an especially valuable source of carbon in rural areas, where delivery from a distributor may be slow. Activated carbon is offered in containers of 1 to 50 lb. Small quantities of purified activated carbon are available at pharmacies and at chemical supply houses.

### **Charcoal Application**

*(Modified for Oregon conditions)*

Applying activated charcoal should be considered as an emergency treatment for herbicide residues from previous crops, spills, or changes in crop rotations. The efficiency of deactivation depends on the soil's organic matter content and physical condition, the herbicide's activity, and the crop's sensitivity. For differences between herbicides, see G. F. Warren, 1973, "Use of Activated Carbon to Inactivate Herbicide Residues," North Central Weed Control Conference, 28:68–69.

If an area is contaminated with undesirable herbicide residues and a susceptible crop is to be planted, apply activated carbon at 200 lb/A (0.5 lb/100 sq ft) for each pound per acre of actual residue. The carbon can be mixed, at the rate of 1 lb carbon to 10 lb sand, and applied with fertilizer-spreading equipment or sprayed using large-capacity nozzles (0.5 gal/minute or larger). Carbon wets and suspends poorly. Local applicators are available in some areas such as the Willamette Valley of Oregon. Otherwise, a grower can add the carbon to a partially filled spray tank and use the remaining water to help mix the floating carbon while the agitator is operating.

Plan carefully. Using activated carbon is a poor substitute for a well-planned weed control program.

For use in grass seeding, see "Grass Seed Crops" in this handbook.