

NOT FOR PUBLICATION
SUMMARY OF 2013
WEED CONTROL EXPERIMENTS

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METHODS

EPP = Early preplant

PPI = Preplant incorporated

PEI = Preemergence incorporated

PRE, PE = Preemergence

EPOST = Early postemergence

MPOST = Mid postemergence

LPOST = Late postemergence

LLPOST = Late-late postemergence

P, PO, POST = Postemergence

POSTDIR = Postemergence Directed

FORMULATION

ACS = Aqueous capsule suspension

DF = Dry Flowable

E, EC = Emulsifiable concentrate

FL, F = Flowable

L = Liquid flowable

ME = Micro-encapsulated

WBF = Water-based flowable

WP = Wettable powder

WG, WDG = Water dispersible granules

WSP, SP = Water Soluble powder

G = Granules or gallon/A

S = Solution

SG = Soluble granules

MISCELLANEOUS

F = Fall

S = Spring

Inc., I = Incorporation

Applic = Application

Cntl = Control

Inju = Injury

%ir, inju = Percent injury rating

%sr, %std, strd = Percent stand reduction

HT = Plant height

SPK = Spike stage

Tswt, TW = Test weight

Yld = Yield

alk = alkanolamine salt

AMN = ammonium nitrate

AMS = ammonium sulfate

bee = butoxyethyl ester

dea = diethanolamine salt

dga = diglycolamine

dma = dimethylamine salt

ioe = isoctyl ester

MSO, MVO = methylated vegetable oil

NIS = nonionic surfactant

PO, OC , POC = Petroleum oil concentrate
(17% emulsifier)

SURF, S = Surfactant

TMS = trimethylsulfonium salt

28N, UAN = 28% liquid nitrogen fertilizer

KEY TO ABBREVIATIONS AND EVALUATIONS

Crop injury, crop stand and weed control ratings are based on a visual estimate using a scale of 0 = no effect to 100 = complete kill.

Alfa = Alfalfa	Nabe = Navy bean
Amar = Amaranth	Nfcf = Nightflowering catchfly
Barl, Bar = Barley	Oats = Tame oats
Bdlf = Broadleaf	Pagf = Pale goosefoot
Biww = Biennial wormwood	Pest = Perennial sowthistle
Bubu = Buffalobur	Pesw = Pennsylvania smartweed
Bygr = Barnyardgrass	Pibe = Pinto bean
Cath = Canada thistle	Pigw = Pigweed
Cano = Canola	Poam = Powell amaranth
Cocb = Common cocklebur	Pota = Potato
Colq = Common lambsquarters	Powe = Pondweed
Coma = Common mallow	Prle = Prickley lettuce
Copu = Common purslane	Prmi = Proso millet (tame)
Corw = Common ragweed	Prpw = Prostrate pigweed
Cram = Crambe	Prsp = Prostrate spurge
Cudo = Curly dock	Quin = Quinoa (<i>chenopodium quinoa</i>)
Dali = Dandelion	Qugr = Quackgrass
Dobr = Downy brome	Rrpw = Redroot pigweed
Drbe = Dry bean	Ruth = Russian thistle
Duru = Durum wheat	Safl, Saff = Safflower
Ebns = Eastern black nightshade	Shpu = Sheperdspurse
Fach = False chamomile	Smwe = Annual smartweed
Fibw = Field bindweed	Soyb, Sobe = Soybean
Fipc = Field pennycress	Spsp = Spotted spurge (prostrate spurge)
Fisb = Field sandbur	Sugb, Sgbt = Sugarbeet
Flwe = Flixweed	Snfl, Sufl = Sunflower
Foba = Foxtail barley, Forage Barley	Swcl = Sweet clover
Fomi, Ftmi = Foxtail millet	Tabw = Tame buckwheat
Fota, Fxtl = Foxtail species	Tamu = Tansy mustard
Girw = Giant ragweed	Tumu = Tumble mustard
Grft = Green foxtail	Tymu = Tame yellow mustard
Gsft = Goosefoot	Vowh = Volunteer wheat
HNS, Hans = Hairy nightshade	Vele = Velvetleaf
Howe = Horseweed	Vema = Venice mallow
HRSW = Hard red spring wheat	Wahe=Waterhemp
KOCZ = Kochia	Wht = Volunteer wheat
Lath = Ladysthumb	Wibw = Wild buckwheat
Lent = Lentils	Wigr = witchgrass
Llsa = Lanceleaf sage	Wimu = Wild mustard
Mael = marshelder	Wioa = Wild oat
Mlgf = Mapleleaf goosefoot	Wipm = Wild-proso millet
Nabe = Navy bean goosefoot	Yeft = Yellow foxtail

Soil Test Results at Various Weed Experiment Locations						
	Soil Texture	Organic Matter	pH	lb/A N	PPM	
					P	K
A. K. Eckre Grassland Preserve (ND)	Loamy sand	2.9	6.8	3	3	70
Absaraka, ND	Loam	2.0	7.2			
Absaraka, ND (Zollinger)	Loam	2.2	7.1	25	11	87
Barney, ND (Zollinger)	Loam	4	7.7	89	25	133
Bathgate, ND	Silty loam	6.5	7.9	242	38	550
Casselton, ND	Silty clay	4.0	7.9	Fertilized by test		
Crookston	Clay	3.0	8.0	211	6	105
Dwight	Sandy Clay Loam	1.7	7.9	50	4	60
Eckelson, ND	Loam	8.0	7.3	20	5	515
Fargo, ND (campus)	Silty clay	6.8	7.2	Fertilized by test		
Fargo, ND (section 22)	Silty clay	4.5-6.0	7.5	Fertilized by test		
Geneseo, ND	Loam	6.0	4.0			
Glyndon, MN		4.6	8.1	Fertilized by test		
Grand Forks (Zollinger)	Silt Loam	4	8	81	5	186
Hawley, MN	Loam	2.2	8.5	3	4	105
Hickson	Clay	7.2	7.5	103	55	975
Hillsboro, ND	Sandy Loam	2.1	6.3	44	9	109
Hillsboro, ND	Loam	4.1	7.7	132	7	210
Hettinger, ND	Silty loam	2.9	6.7	Fertilized by test		
Holloway, MN (Stachler)	Clay	6.0	7.8	139	14	175
Inkster, ND	Loamy sand	2.1	6.0			
Jamestown, ND (Pipestream Dam)	Loam	6.8	6.8	28	5	290
Mayville, ND (Zollinger)	Sandy Loam	2.5	6.2	44	17	94
Minot, ND	Loam	2.7	7.0	Fertilized by test		
Moorhead, MN	Loam	4.9	7.9	186	104	495
Moorhead, MN (Zollinger)	Silty Clay Loam	5.6	7.9	82	55	448
Oakes, ND	Sandy loam	2.0	6.8			
Oriska, ND	Silty clay	4.1	7.4	Fertilized by test		
Oriska, ND (sunflower)	Sandy loam	5.9	3.2			
Prosper, ND	Clay loam	3.5	7.5	90	23	315
Prosper-S, ND (Zollinger)	Clay loam	3.8	8.2	39	7	261
Prosper-M, ND (Zollinger)	Loam	3.8	7.4	6	22	297
Tappen, ND	Sandy loam	1.8	7.6			
Thompson (Zollinger)	Silt loam	5.6	8.1	57	14	266
Valley City, ND	Fine loam	8.2	6.7	11	15	640
Valley City, ND (Zollinger)	Loam	4.6	6.6	26	19	230
Walcott, ND	Loamy sand	2.6	6.7			
Williston, ND	Loam	2.3	6.8	Fertilized by test		
Wyndmere, ND	Loamy sand	1.9	5.7	Fertilized by test		

LIST OF HERBICIDES TESTED IN 2013

Common Name	Abbreviation	Company	Formulation	Trade Name
Acetochlor + Dichlormid	Acet + Dcmd	Dow	6.4 EC 3.2 ME	Surpass, Volley, TopNotch
Acetochlor + Clopyralid + Flumetsulam		Dow	4.25SE	Sure Start
Acetochlor + MON 4660	Acet + 4660	Monsanto	7 EC	Harness
Acetochlor		Monsanto	3.0 SE	Warrant
Acifluorfen	Acif	BASF	2 E, S	Ultra Blazer
Ambicarbazone		Bayer	70 DF	
Aminocyclopyrachlor	DPX KJM44	Dupont	60 DF	
Aminopyralid + 2, 4-D	GF-1004 GF-750	Dow	0.33 + 2.67	Forefront
Aminopyralid	Amino	Dow	2SL	Milestone
Atrazine	Atra	Various	90 DF	Several
Atrazine + Pyroxasulfone + Fluthiacet	Atra + Pxsf + Fltc	FMC		
Bentazon	Bent, Bsgn	BASF	41S	Basagran
Bentazon + Sethoxydim	Bent + Seth	BASF	5 SL 1 EC	Rezult
Bromoxynil	Brox	Bayer	2 EC	Buctril, Several
Bromoxynil & 2, 4-D	Brox + 2, 4-D	Wilbur Ellis	5 EC	Weco Max
Bromoxynil & MCPA	Brox + MCPA (5lb)	Bayer	5 EC	Bronate Advanced
Bromoxynil & fluroxypyr	Brox + Flox	Dow	2.9 EC	Starane NXT
Bromoxynil & Fluroxypyr & MCPA	Brox +Flox +MCPA	Winfield Solutions	1.67 + 0.67 + 1.67 EC	Carnivore
Bromoxynil & Pyrasulfotole	Brox + Pyst	Bayer	2.8 EC	Huskie
Bromoxynil & Pyrasulfotole & Thiencarbazone	Brox + Pyst + Thcz	Bayer	1.46 + 0.26 + 0.042 EC	Huskie Complete
Carfentrazone	Carf	FMC	40 WG	Aim, Quick Silver
Carfentrazone + 2,4-D	Carf + 2,4-D	FMC	0.13 + 3.9	Rage D-Tech
Carfentrazone + Halosulfuron	Priority	Tenkoz	12.5 + 50 WDG	Priority
Carfentrazone + Sulfentrazone		FMC	0.35+3.15 SE	Spartan Charge
Chlorimuron		DuPont	25 DF	Classic
Chlorsulfuron		DuPont	75 WG	Telar / Glean
Clethodim	Clet	Valent Valent Agsco Tenkoz	2 EC 1 EC 2 EC 2 EC	Select Select Max Clethodim Volunteer
Clodinafop	Clfp	Syngenta	2 EC	Discover
Clopyralid	Clpy	Dow	3 S	Stinger, ClopyrAg, Transline
Clopyralid + 2, 4-D	Clpy + 2,4-D	Dow	0.38 + 2 S	Curtail
Clopyralid & fluroxypyr	Clpy + Flox	Dow/UAP	0.75 + 0.75	Widematch/Colt
Clopyralid + Triclopyr	Clpy + Tric	Dow	0.75 + 2.25 EC	Redeem
Cloransulam	Clor, FrstRt	Dow	84 DF	Amplify, FirstRate
Cycloate	Cycl	Syngenta	6 EC	Ro-Neet
Desmedipham + Phenmedipham + Ethofumesate	De & Ph & Et, DPE	Various	0.6 + 0.6 + 0.6 E	Several
Desmedipham	Desm	Various	1.3 EC	Several
Desmedipham + Phenmedipham	Desm + Phen	Various	0.65 + 0.65 E	Several
Dicamba	Dica	Various	4 S	Banvel, Clarity, Engenia, Several
Dicamba + diflufenzoypy + isoxadifin safener	BAS799	BASF	40 + 16 WDG	Status
Dichlobenil		Uniroyal	4 G	Casoron 4G
Diflufenzoypy + Dicamba	Difl + Dica	BASF	50+ 20 WDG	Distinct, Overdrive
Difenoquat	Dife	AMVAC	2 S	Avenge
Diflufenzoypy	Difl	BASF	70 WG	None
Dimethenamid-P	Dime	BASF, Rosens	6 EC	Outlook / Propel
Diquat	Diqu	Syngenta	2 S	Diquat

EPTC		Gowen	7 EC	Eptam
Ethalfuralin	Etha	Dow	3 EC, 10 G	Sonalan
Ethofumesate	Etho	Various	4 F	Several
Fenoxyprop-P	Fenx	Bayer	1 EC	Puma
Fluazifop-P	Flfp-P	Syngenta	2 EC	Fusilade DX
Flucarbazone-NA	Flcz	Bayer	70 WDG	Everest / PRE-PARE
Flumiclorac		Valent	0.86SL	Resource
Flumetsulam + Clopyralid	Flms + Clpy	Dow	18.5 + 50 WDG	Hornet WDG
Flumetsulam	Flms	Dow	80 WG	Python
Flumioxazin	Flum	Valent, Tenkoz	50 WP	Valor / Encompass
Flumioxazin + pyroxasulfone		Valent	33.5 + 42.5 WDG	Fierce
Fluroxypyrr	Flox	Dow	1.5 EC	Starane
Fluroxypyrr + 2, 4-Dioe	Flox + 2,4D	Dow	0.75 + 3 lb/gal EC	Starane + Salvo
Fluroxypyrr + MCPAioe	Flox + MCPA	Dow	0.71 + 2.84 EC	Starane + Sword
Fluroxypyrr + 2, 4-Ddma	Flox + 2,4Da	Dow	0.5 + 2 EC	Starane + Saber
Fluroxypyrr + 2, 4-De		Dow	3.75 EC	Starane + Esteron
Fluroxypyrr + MCPAe		Dow	3.55 EC	Starane + MCPA
Fluroxypyrr + MCPAe + Clopyralid	Flox+MCPA+clpy	Winfield solutions	0.4 + 1.75 + 0.50 EC	Weld
Florasulam	Flas	Syngenta		not commercial
Florasulam + MCPA	Flas + MCPA	Syngenta	2.373L	Orion
Fluthiacet-methyl		FMC	0.91 EC	Cadet
Fluthiacet + Pyroxasulfone		FMC	0.0632 + 2.09 SC	Anthem
Fomesafen		Syngenta	2 EC	Reflex
Fomesafen + Fluthiacet		Syngenta, FMC	2.88 + 0.12 SC	Marvel
Fomesafen + Adjuvant		Syngenta	1.88 EC	Flexstar
Fomesafen + glyphosate + adjuvants		Syngenta	0.66 + 2.63 SL	Flexstar GT
Fomesafen + glyphosate + adjuvants		Syngenta	0.56 + 2.26 SL	Flexstar GT 3.5
Foramsulfuron + Safener		Bayer	70 WDG	Option
Fosamine		DuPont	4 S	Krenite
Glufosinate	Gluf, Lbryt	Bayer	1.67 SL ,2.33 SL	Liberty/Ignite 280
Glyphosate-ipa	Glyt	Various	3 ae/gal S	Several
Glyphosate-K	Mon 78270 Touchdown KPMG	Monsanto, Syngenta	4.5 S 4.175	RU Weathermax, Touchdown Total
Glyphosate-(NH ₃) ₂	Glyt	Syngenta	3 ae/gal S	Touchdown
Halosulfuron	Halo, Prmt	Gowan	75 DF	Permit / Sandea
Imazamethabenz	Immb	BASF	2.5 EC	Assert
Imazamox	Imam, Immx	BASF	1 S	Raptor / Beyond
Imazapic		BASF	2 EC	Plateau
Imazapyr		BASF	2 L	Arsenal
Imazethapyr + Glyphosate		BASF	0.17 + 2SL	Extreme / Tackle
Imazethapyr + Pendimethalin	Imep + Pend	BASF	2.9 EC	Pursuit Plus
Imazethapyr	Imep, Prst	BASF	2 S	Pursuit
Imazethapyr + Saflufenacil	Imep = Saff	BASF	0.5 + 0.178 SC	Balance Pro/Balance Flexx
Indaziflam		Bayer	1.67 EC	Alion
Isoxadifen		Bayer	50 WG	Isoxadifen
Isoxaflutole		Bayer	4 SC, 2 SC	BalancePro / Balance Flexx
Isoxaflutole + thiencarbazone + Safener		Bayer	2.63 SC	Corus
Lactofen		Valent	2 EC	Cobra
Linuron		TKI	50 DF	Lorox
MCPA	MCPA	Various	4 EC, S	Several
Mesosulfuron + safener	Mess	Bayer	2 WG	Silverado
Mesosulfuron + Propoxycarbazone	Mess + Prcz	Bayer	8.14 + 2.03 WDG	Rimfire
Mesotrione	Mest	Syngenta	4 SC	Callisto
Mesotrione + s-metolachlor		Syngenta	0.33 + 3.3 SC	Camix, Zemax

Mesotrione + s-metolachlor + Atrazine		Syngenta	0.27 + 2.68 + 1 SC	Lumax
S-metolachlor	Meto	Syngenta	7.62 EC	Dual Magnum, Cinch
S-metolachlor + Benoxacor (active isomer)		Syngenta	7.6 E	Dual/II/Magnum
S-metolachlor + Atrazine		Syngenta	2.4 + 3.1 L 3.23 + 2.67L	Bicep II Magnum Bicep Lite II Magnum, Cinch ATZ
S-metolachlor + fomesafen		Syngenta	4.34 + 0.95 EC	Prefix
S-meto + mesotrione + glyt		Syngenta	4.38 SC	Halex GT
Metribuzin	Metr	Bayer	4 F, 75 DF	Sencor, several
Metribuzin + Sulfentrazone	Metr + Suen	FMC	0.27+0.187 WDG	Authority MTZ
Metsulfuron	Mets	DuPont	60 DF	Ally, Escort, Cimarron
Nicosulfuron	Nico	DuPont	75 DF	Accent
Nicosulfuron + Rimsulfuron	Nico + Rims	DuPont	50 + 25 DF	Steadfast
Oxyfluorfen	Oxyf	Dow	2 EC/4 WBF	Goal/Goal Tender
Paraquat	Para	Syngenta	2.5 S	Several
Pendimethalin	Pend	BASF Tenkoz	3.8 ACS 3.3 EC	Prowl / H ₂ O Acumen
Picloram		Dow	2 S	Tordon 22K
Pinoxaden	Pxdn	Syngenta	0.83 EC	Axial
Pinoxaden + Fenoxaprop	Pxdn +Fenx	Syngenta	0.42 + 0.42 EC	Foxfire
Pinoxaden + Florasulam	Pxdn + Flsm	Syngenta	0.774 + 0.0645	Axial TBC
Pinoxaden + Fluroxypyr	Pxdn + Flox	Syngenta	0.42 + 0.73 EC	Axial Star
Propoxycarbazone	Prcz	Bayer	70 WDG	Olympus
Propoxycarbazone&Mesosulfuron	Prcz&Mess	Bayer	6.75 + 4.5 WDG	Olympus Flex
Pyrasulfotole + bromoxynil +Safener + Fenoxaprop	Pyst + Brox + Renx	Bayer	1.32 EC	Wolverine
Pyroxasulfone	KIH - 485, Pxsf	Kumiai	85 WG	KIH - 485
Pyraflufen	pyff	Gowan	0.21 EC	ET/Vida
Pyroxulam	Pxlm	Dow	7.5 WG	PowerFlex
Pyroxulam + Florasulam + Fluroxypyr	Pxlm + Flas + Flox	Dow	0.838L	Goldsky
Quinclorac		BASF	75 WP	Paramount
Quizalofop-P	Qufp-P	DuPont, Gowan	0.88 EC	Assure II, Targa
Rimsulfuron + Mesotrione		DuPont	7.5 + 31.25 SG	Realm Q
Rimsulfuron + Thifensulfuron	Rims + Thif, Bsis	DuPont	75 DF	Basis
Rimsulfuron + Thifensulfuron	Rims + Thif	DuPont	18.4 + 4 SG	Resolve Q
Rimsulfuron	Rims	DuPont	25 DF	Matrix / Resolve
Saflufenacil	BAS 800 04, Saff	BASF	2.85 SC	Sharpen
Saflufenacil + dimethenamid	BAS 78102 H	BASF	5.57 EC	Integrity
Sethoxydim	Seth	BASF	1.5 EC	Poast
Simazine		Syngenta	4 L	Princep 4L
Sulfentrazone	Suen	DuPont/FMC	75 DF	Authority, Spartan, Payload
Sulfentrazone + Cloransulam		FMC	70 WDG	Authority First, Sonic
Sulfentrazone + Imazethapyr	Suen = Imep	FMC	3.33 + 0.67 L	Authority Assist
Sulfometuron	Sume	DuPont	75 DF	Oust
Sulfosulfuron	Sulf	Monsanto	75 WG	Maverick, Outrider
Tebuthiuron		Dow	20 WG	Spike
Tembotriione + isoxadifen safener	AE172747, Temb	Bayer	(2:1) 3.5 SL	Laudis
Thifensulfuron + Tribenuron	Thif + Trib	DuPont	50 + 25 DF	Several
Thifensulfuron + Tribenuron		Dupont	25 + 25 SP	Affinity Broad Spectrum
Thifensulfuron + Tribenuron		Dupont	40 + 10 SP	Affinity Tankmix
Thifensulfuron + Tribenuron + Fluroxypyr	Thif + Pinn + Flox	Arysta	4.5 + 1.5 + 25 EG	Supremacy
Thifensulfuron	Thif, Pinn ,Pncl	DuPont	75 DF	Several
Topramezone		AmVac	2.8 SC	Impact

Tralkoxydim	Tral	Syngenta	40 DF	Achieve
Triallate	GWN 3040, Tria	Gowan	4EC	Far-Go
Tribenuron	Trib	DuPont	75 DF	Several
Triclopyr	Trcp	Dow	4 EC	Garlon / Remedy
Trifluralin	Trif	Dow	4 EC, 10 G	Several
Triflusulfuron	Tfsu	DuPont	50 DF	UpBeet
2,4-D	2,4-D	Various	Various EC, S, WSP	Several
2,4-DB	2,4-DB	Various		Several
2,4-D-dma + Dicamba – dma salt		Winfield	2.87 + 1 SL	Brash
2,4-D + Glyphosate		Dow	3.33 SL	Enlist Duo

^aAbbreviations in the tables may consist of only the first one, two, or three listed letters when space was limited. Abbreviations of numbered compounds vary with available space, but usually use the first letters and numbers.

Herbicide Spray Adjuvants

Surfactant & AMS & AMS Replacement (WCA)					
		Fertilizer		Bronc Total	Wilbur-Ellis \$30.00 gal
AMS (Dry)	Various	\$0.35 lb	4 to 8.5 lb/A	Transport	Precision Labs \$34.00 gal
AMS (liquid)	Various	\$6.00 gal	2 to 4 qt/A		0.75 to 1% v/v
28% UAN	Various	\$10.00 gal	2 to 4 qt/A		0.5 % v/v
28% UAN (bulk)	Various	\$3.00 gal	2 to 4 qt/A		
Acidic AMS Replacement (WCA)					
AMADS - Monocarbamide dihydrogen sulfate or urea + sulfuric acid					
Brimstone		Wilbur-Ellis	\$34.00 gal	3 pt/100 gal	
CT-301		Cheltec	\$ - gal	4-8 fl oz/100 gal	
ET-4000		MK Ag Service	\$31.00 gal	4 pt/100 gal	
Gun Smoke		Loveland	\$35.00 gal	3 to 4 pt/100 gal	
Hel-Fire		Helena	\$35.00 gal	3 to 4 pt/100 gal	
Import		Precision Labs	\$34.00 gal	3 to 4 pt/100 gal	
N Go/N Tank		Adjuvants Plus	\$34.00 gal	3 to 4 pt/100 gal	
Basic pH Blend					
Linkage		West Central	\$19.00 gal	1% v/v	
Mycrimix Plus		J.R. Simplot	\$19.00 gal	1% v/v	
Quad 7		Loveland	\$15.50 gal	1% v/v	
Petroleum Oil Concentrate					
Agri-Dex		Helena	\$16.00 gal	2 to 4 pt/A	
Crop Oil Concen.		Helena	\$ - gal	2 to 4 pt/A	
Herbimax		Loveland	\$12.00 gal	2 to 4 pt/A	
Ortech		Rosens	\$7.50 gal	2 to 4 pt/A	
Premium Crop Oil		United Suppl.	\$10.00 gal	2 to 4 pt/A	
Premium COC		West Central	\$10.00 gal	2 to 4 pt/A	
Prime Oil		Winfield	\$10.00 gal	2 to 4 pt/A	
Protx Aerial		Precision Labs	\$22.00 gal	0.5 pt/A	
ROC Crop Oil		Wilbur-Ellis	\$12.00 gal	2 to 4 pt/A	
Surfactant & Silicone					
Freeway	Loveland	\$95.00 gal	0.75 to 2 pt/100 gal		
Kinetic	Helena	\$121.00 gl	0.75 to 2 pt/100 gal		
Silkin	Winfield	\$96.00 gal	0.75 to 2 pt/100 gal		
Speed	Precision Labs	\$96.00 gal	0.25 to 2 pt/100 gal		
Sur-Plus	United Suppl.	\$87.00 gal	0.5 to 2 pt/100 gal		
Sylgard 309	Wilbur-Ellis	\$120.00 gl	0.75 to 2 pt/100 gal		
Surfactant & AMS					
Bronc PlusDryEDT	Wilbur-Ellis	\$1.85 lb	10 lb/100 gal		
Class Act NG	Winfield	\$11.00 gal	2.5% v/v		
Deliver	Precision Labs	\$10.00 gal	2.5% v/v		
Impressive DB	Rosens	\$0.90 lb	2.25 lb/A		
Powerhouse	Rosens	\$7.25 gal	5 to 10 qt/100 gal		
Surfate	Loveland	\$14.50 gal	1% v/v		
Ultra Surf AMS	United Suppl.	\$10.00 gal	2.5% v/v		
AMS Replacement / Water Conditioning Agent (WCA)					
Citron	Farm Direct	\$3.25 lb	2.2 lb/100 gal		
Cut-Rate	Wilbur-Ellis	\$1.25 lb	4 lb/100 gal		
Quest/Request	Helena	\$20.00 gal	0.5% v/v		
Speedway	United Suppl.	\$32.00 gal	0.5% v/v		
AMS & WCA (AMS Replacement)					
Alliance	Winfield	\$14.00 gal	1.25% v/v		
Bronc Max	Wilbur-Ellis	\$24.00 gal	0.5% v/v		
Choice W-Master	Loveland	\$20.00 gal	0.5% v/v		
Enact	Rosens	\$18.00 gal	0.5% v/v		
Sequester	Hefty	\$24.00 gal	0.25 to 0.5% v/v		
Surfactant & AMS Replacement (WCA)					
Fastrack	United Suppl.	\$25.00 gal	0.75% v/v		
Flame	Loveland	\$40.00 gal	0.5% v/v		
N-Tense	West Central	\$25.00 gal	0.25 to 0.75% v/v		
Transport Ultra	Precision Labs	\$25.00 gal	0.25 to 0.75% v/v		
Oil Based Surfactant					
Trophy Gold	West Central	\$32.00 gal		0.5 pt/A	
Base Oil, Surfactant & WCA					
Simplyx	Precision Labs	\$ - gal		0.5 pt/A	

MSO & Basic pH Blend				
Base	West Central	\$26.00 gal	1 to 2 pt/A	
Entro	Various	\$26.00 gal	1 to 2 pt/A	
Renegade	Wilbur-Ellis	\$23.00 gal	1 to 2 pt/A	
MSO & AMS Replacement (WCA)				
SuperCharge	Syngenta	w/Achieve	0.5% v/v	
MSO & Organosilicone Surfactant				
Air Force	United Suppl.	\$44.00 gal	4 to 6 fl oz/A	
Dyne-Amic	Helena	\$51.50 gal	4 to 6 fl oz/A	
Rivet	Winfield	\$44.00 gal	4 to 6 fl oz/A	
Syl-tac	Wilbur-Ellis	\$59.00 gal	4 to 6 fl oz/A	
AMS & Drift Retardant				
AMS 20/10	United Suppl.	\$1.60 lb	10 lb/100 gal	
Corral AMS Dry	Winfield	\$1.60 lb	10 to 17 lb/100 gal	
AMS & Defoamer				
Omnix LDF	Precision Labs	\$4.60 gal	2.5 to 5% v/v	
AMS & Deposition & Defoamer				
AMS 2000	United Suppl.	\$1.25 lb	10 to 17 lb/100 gal	
AmSol Plus	United Suppl.	\$6.00 gal	2.5 gal/100 gal	
Arrow Four	Winfield	\$22.00 gal	2 to 4 qt/100 gal	
Cornbelt Dri-Gard	West Central	\$1.50 lb	9 lb/100 gal	
Crnbt Gardian Pls	West Central	\$6.50 gal	2.5 gal/100 gal	
Double Down	United Suppl.	\$8.00 gal	2.5 gal/100 gal	
AMS & Deposition/Retention & Defoamer				
Array	Rosens	\$1.60 lb	9 to 14 lbs/100 gal	
Border Xtra DF	Precision Labs	\$1.60 lb	18 lb/100 gal	
Border Xtra 4L	Precision Labs	\$5.00 gal	5% v/v	
Border Xtra 8L	Precision Labs	\$8.00 gal	2.5% v/v	
Vector	Rosens	\$5.20 lb	2 lb/100 gal	
AMS & Surfactant & Deposition/Retention & Defoamer				
One-Ap XL	West Central	\$1.85 lb	9 to 15 lb/100 gal	
BroncPlus DryEDT	Wilbur-Ellis	\$1.8560 lb	10 lb/100 gal	
Bronc Triple	Wilber-Ellis	\$34.00 gal	2 qt/100 gal	
Pay Off Plus	United Suppl.	\$2.00 lb	10 to 13 lb/100 gal	
Zenith	Rosens	\$1.25 lb	1.5 to 2.25 lb/A	
AMS & AMS Replacement (WCA) & Deposition				
Bronc Max EDT	Wilbur-Ellis	\$36.00 gal	2 to 3 qt/100 gal	
Cornbelt Gardian	West Central	\$22.00 gal	2 to 3 qt/100 gal	
Transport Plus	Precision Labs	\$30.00 gal	2 to 4 qt/100 gal	
AMS & AMS Replacement (WCA) & Surfactant & Deposition/Retention & Defoamer				
Veracity	West Central	\$23.00 gal	3 qt/100 gal	
AMS Replacement (WCA) & Surfactant & Deposition/Retention & Defoamer				
Weather-Gard	Loveland	\$50.00 gal	1 to 2 qt/100 gal	
Complete Leci-Tec				
AMS Replacement (WCA) & Deposition/Retention & Defoamer				
Formula 1	United Suppl.	\$30.00 gal	1 to 3 qt/100 gal	