

NOT FOR PUBLICATION
SUMMARY OF 2020
WEED CONTROL EXPERIMENTS

Department of Plant Sciences
North Dakota State University
Fargo, North Dakota

M. J. Christoffers
K. A. Howatt
A. Robinson

G. Gramig
J. T. Ikley

H. M. Hatterman-Valenti
T. J. Peters

D. Guimarães Abe
S. A. DeSimini
S. F. Mark
G. Willoughby

C. P. Auwarter
N.H. Haugrud
J. E. Mettler

K. Boll
P. Ihry
R. P. Sabba

E. Brandvik
A. Lystad
T. Walter

Research Specialists/Technicians

S. Bogenrief
J. Stith
K. Satrom

V. Kadium
A. Svyantek

J. Lachowitzter
M. Mzumara

K. Fiskness
B. Rana

Graduate Research Assistants

Contributors:

Dalley, Caleb - Hettinger Research Extension Center
Endres, Greg - Carrington Research Extension Center
Jenks, Brian - Minot Research Extension Center
Keene, Clair - Williston Research Extension Center
Ostlie, Mike - Carrington Research Extension Center

Reference to commercial products or trade names is made with no intended endorsement, and failure to mention products or trade names is done with no intended discrimination by North Dakota State University. Experiments with pesticides on non-labeled crops or target species does not imply endorsement for non-labeled uses of pesticides by North Dakota State University.

Some of this material is based upon work supported by the U. S. Department of Agriculture, under Agreement 2002-34361-11781, 2003-34361-13002, 2005-34361-15578. Any opinions, findings, conclusion, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U. S. Department of Agriculture.

METHODS

EPP = Early preplant	MPOST = Mid postemergence
PPI = Preplant incorporated	LPOST = Late postemergence
PEI = Preemergence incorporated	LLPOST = Late-late postemergence
PRE, PE = Preemergence	POST = Postemergence
EPOST = Early postemergence	POSTDIR = Postemergence Directed

FORMULATION

ACS = Aqueous capsule suspension	WP = Wettable powder
CS=Capsule suspension	WG, WDG = Water dispersible granules
DF = Dry Flowable	WSP, SP = Water Soluble powder
E, EC = Emulsifiable concentrate	G = Granules or Glon/A
FL, F = Flowable	S = Solution
L = Liquid flowable	SC=Suspension concentrate
ME = Micro-encapsulated	SE=Suspension emulsion
OD=Oil dispersion	SG = Soluble granules
WBF = Water-based flowable	

MISCELLANEOUS

F = Fall	AMS = ammonium sulfate
S = Spring	bee = butoxyethyl ester
Inc., I = Incorporation	dea = diethanolamine salt
Applic = Application	dga = diglycolamine
Cntl = Control	dma = dimethylamine salt
Inju = Injury	ioe = isoctyl ester
%ir, inju = Percent injury rating	MSO, MVO = methylated vegetable oil
%sr, %std, strd = Percent stand reduction	NIS = nonionic surfactant
HT = Plant height	PO, OC , POC = Petroleum oil concentrate (17% emulsifier)
SPK = Spike stage	SURF, S = Surfactant
Tswt, TW = Test weight	TMS = trimethylsulfonium salt
Yld = Yield	28N, UAN = 28% liquid nitrogen fertilizer
alk = alkanolamine salt	
AMN = ammonium nitrate	

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.

Abbreviation = Weed/Crop	Bayer Code	Abbreviation = Weed/Crop	Bayer Code
Alfa = Alfalfa	MEDSA	Nabe = Navy bean	PHSSS
Amar = Amaranth	AMA	Nfcf = Nightflowering catchfly	MELNO
Barl, Bar = Barley	HORVX	Oats = Tame oats	AVESA
Bdlf = Broadleaf	-	Pagf = Pale goosefoot	CHEPA
Biww = Biennial wormwood	ARTBI	Pest = Perennial sowthistle	SONAR
Bubu = Buffalobur	SOLCU	Pesw = Pennsylvania smartweed	POLPY
Bygr = Barnyardgrass	ECHCG	Pibe = Pinto bean	PHSSS
Cath = Canada thistle	CIRAR	Pigw = Pigweed	AMASS
Cano = Canola	BRSRC	Poam = Powell amaranth	AMAPO
Cocb = Common cocklebur	XANST	Pota = Potato	SOLTU
Colq = Common lambsquarters	CHEAL	Powe = Pondweed	PTMNO
Coma = Common mallow	MALNE	Prle = Prickley lettuce	LACSE
Copu = Common purslane	POROL	Prmi = Proso millet (tame)	PANMI
Corw = Common ragweed	AMBEL	Prpw = Prostrate pigweed	AMABL
Cram = Crambe	CRMAB	Prsp = Prostrate spurge	EPHHT
Cudo = Curly dock	RUMCR	Quin = Quinoa (chenopodium quinoa)	CHEQU
Dali = Dandelion	TAROF	Qugr = Quackgrass	AGRRE
Dobr = Downy brome	BROTE	Rrpw = Redroot pigweed	AMARE
Drbe = Dry bean	PHSSS	Ruth = Russian thistle	SASKR
Duru = Durum wheat	TRZDU	Safl, Saff = Safflower	-
Ebns = Eastern black nightshade	SOLPT	Shpu = Sheperdspurse	CAPBP
Eda=Edamame	-	Smwe = Annual smartweed	POLSS
Fach = False chamomile	MATMA	Soyb, Sobe = Soybean	GLXMA
Fibw = Field bindweed	CONAR	Spsp = Spotted spurge (prostrate spurge)	EPHMA
Fipc = Field pennycress	THLAR	Sugb, Sgbt = Sugarbeet	BEAVA
Fisb = Field sandbur	CCHIN	Snfl, Sufl = Sunflower	HELAN
Flwe = Flixweed	DESSO	Swcl = Sweet clover	MEUOF
Foba = Foxtail barley, Forage Barley	HORJU	Tabw = Tame buckwheat	POLSS
Fomi, Ftmi = Foxtail millet	SETIT	Tamu = Tansy mustard	-
Fota, Fxtl = Foxtail species	SETSS	Tumu = Tumble mustard	SSYAL
Girw = Giant ragweed	AMBTR	Tymu = Tame yellow mustard	-
Grft = Green foxtail	SETVI	Vowh = Volunteer wheat	TRZAS
Gsft = Goosefoot	CHESS	Vele = Velvetleaf	ABUTH
HNS, Hans = Hairy nightshade	SOLSA	Vema = Venice mallow	HIBTR
Howe = Horseweed	ERICA	Wahe=Waterhemp	AMATA
HRSW = Hard red spring wheat	TRZAS	Wht = Volunteer wheat	TRZAS
KOCZ = Kochia	KCHSC	Wibw = Wild buckwheat	POLCO
Lath = Ladysthumb	POLPE	Wigr = witchgrass	PANCA
Lent = Lentils	LENCU	Wimu = Wild mustard	SINAR
Llsa = Lanceleaf sage	SALRE	Wioa = Wild oat	AVEFA
Mael = marshelder	IVAXA	Wipm = Wild-proso millet	PANMI
Mlgf = Mapleleaf goosefoot	CHEHQ	Yeft = Yellow foxtail	SETLU

Soil Test Results at Various Weed Experiment Locations						
	Soil Texture	Organic Matter	pH	Ib/A N	PPM	
					P	K
Absaraka, ND	Loam	2.0	7.2			
Ada, MN (Peters)	Sandy Clay Loam	2.2	8.2	49	4	48
Bathgate, ND	Silty Loam	6.5	7.9	242	38	550
Becker, MN	Sandy Loam	1.8	6.6	51	22	140
Casselton, ND	Silty Clay	4.0	7.9	Fertilized by test		
Crookston	Clay	3.0	8.0	211	6	105
Crookston, MN (Peters)	Loam	4.2	8.1	66	24	190
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	7.0	7.8	Fertilized by test		
Fargo, ND (section 22)	Silty Clay	5.0	7.4	Fertilized by test		
Foxhome, MN (Peters)	Sandy Loam	3.6	8.4	16	16	114
Geneseo, ND	Loam	6.0	4.0			
Glyndon, MN		4.6	8.1	Fertilized by test		
Hawley, MN	Loam	2.2	8.5	3	4	105
Hettinger, ND	Silty Loam	2.9	6.7	Fertilized by test		
Hickson, ND (Peters)	Silty Clay	5.9	7.4	34	32	800
Hillsboro, ND	Sandy Loam	3.1	6.2	68	28	318
Horace, ND (KayJay)	Silty Clay Loam	4.3	8.1	11	5	210
Inkster, ND	Loamy sand	2.1	6.0	Fertilized by test		
Jamestown, ND (Pipestream Dam)	Loam	6.8	6.8	28	5	290
Lake Lillian, MN (Peters)	Silt Loam	6.5	6.9	Fertilized by test		
Mayville, ND	Sandy Loam	2.9	7.1	16	18	80
Minot, ND	Loam	2.7	7.0	Fertilized by test		
Moorhead, MN	Loam	4.9	7.9	186	104	495
Moorhead, MN (Peters)	Silty Clay Loam	5.1	8.0	55	36	460
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			
Ottertail, MN	Sandy Loam	1.5	6.6		48	88
Park Rapids, MN	Sandy Loam	1.5	6.1	Fertilized by test		
Prosper, ND (Peters)	Silty Clay Loam	4.3	7.6	22	13	245
Prosper, ND	Silty Clay Loam	4.3	7.0	90	41	350
Tappen, ND	Sandy Loam	1.8	7.6			
Valley City, ND	Fine Loam	8.2	6.7	11	15	640
Williston, ND	Loam	2.3	6.8	Fertilized by test		
Wyndmere, ND	Loamy Sand	1.9	5.7	Fertilized by test		

North Dakota Herbicide Compendium

Product <small>Site of action-pg 100-101</small>	Company	Brand equivalent	Active ingredients	Formulation
Aatrex 4L ⁵	Syngenta	-	atrazine	4F
Aatrex Nine-O ⁵	Syngenta	-	atrazine	90DF
Abundit Edge ⁹	Corteva	RU PM	glyphosate-k salt	4.5SL
Accent Q ²	Corteva	Accent	nicosulfuron & isoxadifen safener	54.5DF
Accurate Extra ^{2,2,2}	FMC	Ally Extra	thifensulfuron & tribenuron & metsulfuron	37.50+18.75+15DF
Acumen ³	Tenkoz	Prowl	pendimethalin	3.3EC
Acuron ^{5,15,27,27}	Syngenta	-	atra&meto&meso&bicyclo&benox	1+2.14+0.24+.06ZC
AcuronFlex ^{15,27,27}	Syngenta	-	meto & meso & bicyclo & benox	2.86+0.32+.08ZC
Affinity BrdSpec ^{2,2}	FMC	-	thifensulfuron & tribenuron 1:1	25 + 25SG
AffinityTankMix ^{2,2}	FMC	-	thifensulfuron & tribenuron 4:1	40 + 10SG
Afforia ^{2,2,14}	Corteva	-	flumioxazin & thifensulf & triben	40.8 & 5 & 5SG
Agility ^{4,2,2,2}	FMC	-	dicamba&thifen&triben&metsulf	57.8+4.7+2.4+1.9SG
Aim EC ¹⁴	FMC	-	carfentrazone-ethyl	2EC
Alion ²⁹	Bayer	-	indaziflam	1.67EC
Alluvex ^{2,2}	Corteva	-	thifensulfuron & rimsulfuron 1:1	16.7 + 16.7SG
Ally ²	FMC	-	metsulfuron-methyl	60XP
AllyExtra SG ^{2,2,2}	FMC	-	thifensul & triben & metsulf	27.3+13.6 +10.9SG
Amber ²	Syngenta	-	triasulfuron	75DF
Anthem ^{14,15}	FMC	-	fluthiacet & pyroxasulfone	0.0632 + 2.09SC
AnthemATZ ^{5,14,15}	FMC	-	atra & fluthiacet & pyroxasulfone	4+0.014+0.485SC
AnthemFlex ^{14,15}	FMC	-	carfentrazone & pyroxasulfone	0.267 + 3.733SC
AnthemMaxx ^{14,15}	FMC	-	fluthiacet & pyroxasulfone	0.126 + 4.174SC
Armezon ²⁷	BASF	Impact	topramezone	2.8SC
ArmezonPro ^{15,27}	BASF		topramezone & dimethenamid	0.1 + 5.25SC
Arrow ¹	ADAMA	Select	clethodim	2EC
Arsenal ²	BASF	-	imazapyr-ipa salt	2AS
Assure II ¹	AMVAC	-	quizalofop-ethyl	0.88EC
Atra-5 ⁵	Drexel	-	atrazine	5F
Atrazine 4L ⁵	Several	-	atrazine	4L
Atrazine 90DF ⁵	Several	-	atrazine	90DF
Audit 1:1 ^{2,2}	UPL	-	thifensulfuron & tribenuron 1:1	25 + 25XP
Audit 1:1 ^{2,2}	UPL	-	thifensulfuron & tribenuron 4:1	40 + 10XP
Authority Assist ^{2,14}	FMC	-	imazethapyr & sulfentrazone	0.67 + 3.33L
Authority Edge ^{15, 14}	FMC	-	pyroxasulfone & sulfentrazone	1.52 + 2.73 SC
Authority Elite ^{15,14}	FMC	BroadAxe	S-metolachlor & sulfentrazone	6.3 + 0.7EC
Authority First ^{2,14}	FMC	Sonic	cloransulam & sulfentrazone	7.9 + 62.1WDG
Authority MTZ ^{5,14}	FMC	-	metribuzin & sulfentrazone	27 + 18WDG
Authority Supreme ^{14,15}	FMC		pyroxasulfone & sulfentrazone	2.08 + 2.08SC
Autumn Super ^{2,2}	Bayer	-	iodosulfuron & thiencarbazone	6 + 45WDG
Avadex MA ⁸	Gowan	Far-Go	triallate	10G
Avalanche Ultra ¹⁴	Winfield	-	acifluorfen-Na salt	2SL
Axial Bold ^{1,1}	Syngenta	-	Fenoxyaprop + pinoxaden	0.457 + 0.228 EC
Axial Star ^{4,1}	Syngenta	-	fluroxypyr & pinoxaden & safnr	0.73 + 0.42EC
Axial XL ¹	Syngenta	-	pinoxaden&cloquintocet safener	0.42EC
Balance Flexx ²⁷	Bayer	-	isoxaflutole & cyprosulfamide	2SC
Banvel ⁴	Several	-	dicamba-dma salt	4SL
Barrage HF ⁴	Helena	-	2,4-D ethylhexyl-ester	4.7SL
Basagran ⁶	Several	-	bentazon-Na salt	4SL
Basagran 5L ⁶	BASF	Basgran	bentazon-Na salt	5SL
Basis Blend ^{2,2}	Corteva	ResolveQ	rimsulfuron & thifen & isoxadifen	20 + 10SG
Beacon ²	Syngenta	-	primisulfuron-methyl	75DF
Bentazon ⁶	Willowood	Basagran	bentazon-Na salt	4SL
Betamix ^{5,5}	Bayer	-	desmedipham & phenmedipham	0.65 + 0.65EC
Beyond ²	BASF	Raptor	imazamox-NH ₄ salt	1SL
Bicep II Magnum ^{5,15}	Syngenta	-	atrazine & S-metolachlor	3.1 + 2.4L
Bicep Lite II Magnum ^{5,15}	Syngenta	-	atrazine & S-metolachlor	2.67 + 3.23L

Product ^{Site of action-pg 100-101}	Company	Brand equivalent	Active ingredients	Formulation
Bison ^{6,4}	Winfield	Bronate	bromoxynil ester & MCPA ester	2 + 2EC
Blanket ¹⁴	Tenkoz	Spartan	sulfentrazone	4L
Boundary ^{15,5}	Syngenta	-	S-metolachlor & metribuzin	5.25 + 1.25L
Brash ^{4,4}	Winfield	Weedmstr	2,4-D-dma & dicamba-dma salt	2.87 + 1SL
Brawl ¹⁵	Tenkoz	Dual Mag	S-metolachlor	7.62EC
Brawl II ¹⁵	Tenkoz	Dual II M	S-metolachlor & benoxacor safen	7.64EC
Breakfree ¹⁵	Corteva	Surpass	acetochlor & dichlormid safener	6.4EC
Breakfree NXT Lite ^{15,5}	Corteva	Harness X	acetochlor & atrazine	4.3 + 1.7L
Broadrange 55 ⁴	Wilbur-Ellis	2,4-D	2,4-D-diethylamine salt	5.03L
BroadAxe XC ^{15,14}	Syngenta	Auth. Elite	S-metolachlor & sulfentrazone	6.3 + 0.7EC
Broclean ⁶	Loveland	Buctril	bromoxynil-ester	2EC
Bromac ^{6,4}	Loveland	Bronate	bromoxynil-ester & MCPA-ester	2 + 2EC
Bromac Advanced ^{6,4}	Loveland	Bron.Adv.	bromoxynil-ester & MCPA-ester	2.5 + 2.5EC
Brox ⁶	Albaugh	Buctril	bromoxynil-ester	2EC
Brox M ^{6,4}	Albaugh	Bronate	bromoxynil-ester & MCPA-ester	2 + 2EC
Brox M Ultra ^{6,4}	Albaugh	Bron. Adv.	bromoxynil-ester & MCPA-ester	2.5 + 2.5EC
Buccaneer/Plus ⁹	Tenkoz	Roundup	glyphosate-ipa salt	3SL
Butyrac 200 ⁴	Albaugh	-	2,4-DB-dma salt	2SL
Cadet ¹⁴	FMC	-	fluthiacet-methyl	0.91SL
Callisto ²⁷	Syngenta	-	mesotrione	4SE
Callisto GT ^{9,27}	Syngenta	-	mesotrione & glyphosate	0.38 + 3.8SE
Callisto Xtra ^{27,5}	Syngenta	-	mesotrione & atrazine	0.5 + 3.2SC
Candor ^{4,4}	Nufarm	Crossbow	triclopyr-bee & 2,4-D-bee	1 + 2SL
Capreno ^{27,2}	Bayer	-	tembo & thiencarbazone & isox	2.88 + 0.57SC
Capstone ^{4,4}	Corteva	-	aminopyralid-3ipNH ₄ & triclopyr	0.1 + 1SL
Carnivore ^{4,4,6}	Winfield	-	MCPA & floroxypyrr & bromoxynil	1.67+0.67+1.67EC
Casoron 4G	UPL	-	dichlobenil	4G
Casoron 10G	UPL	-	dichlobenil	10G
Chaparral ^{4,2}	Corteva	-	aminopyralid-K salt+ metsulfuron	52.5 + 9.45DF
Charger Basic ¹⁵	Winfield	Dual Mag.	S-metolachlor	7.62EC
Charger Max ¹⁵	Winfield	Dual II M	S-metolachlor & benoxacor safen	7.64EC
Chateau ¹⁴	Valent	Valor	flumioxazin	51WDG
Cheetah ¹⁰	Nufarm	Liberty	glufosinate-NH ₄ salt	2.34SL
Cheetah Max ¹⁰	Nufarm	-	fomesafen & glufosinate-NH ₄ salt	1 + 2SL
Cimarron X-tra ^{2,2}	Bayer	-	chlorsulfuron & metsulfuron	37.5 + 30DF
Cinch ¹⁵	Corteva	Dual II M	S-metolachlor & benoxacor safen	7.64EC
Cinch ATZ Lite ^{5,15}	Corteva	Bicep II L	atrazine & S-metolachlor	2.67 + 3.23L
Clarity ⁴	BASF	-	dicamba-dga salt	4SL
Clash ⁴	Nufarm	Clarity	dicamba-dga salt	4SL
Clean Slate ⁴	Nufarm	Stinger	clopyralid-monoethanolamine salt	3SL
Cleansweep D ^{4,4,6}	Nufarm	-	fluroxypyrr-e & 2,4-D-e & bromox	0.64 + 1.6 + 2EC
Cleansweep M ^{4,4,6}	Nufarm	-	fluroxypyrr-e & MCPA-e & bromox	0.67+1.67+1.67 EC
CleanTraxx ¹	Corteva	-	penoxsulam & oxyfluorfen	0.083 + 3.93EC
CleanWave ^{4,4}	Corteva	-	aminopyralid & fluroxypyrr	0.08 + 1.12EC
Clethodim ¹	Several	Select	clethodim	2EC
Cobra ¹⁴	Valent	-	lactofen	2EC
Collide ¹⁴	UPL	Goal	oxyfluorfen	2EC
Colt AS ^{4,4}	Loveland	WideMatch	clopyralid-MEAsalt & fluroxypyrr-e	0.75 + 0.75EC
Colt + Salvo ^{4,4}	Loveland	-	fluroxypyrr-ester & 2,4-D-ester	0.75 + 3EC
Colt + Sword ^{4,4}	Loveland	-	fluroxypyrr-ester & MCPA-ester	0.71 + 2.84EC
Comet ⁴	Nufarm	Starane	fluroxypyrr-ester	1.5EC
Confidence ¹⁵	Winfield	Harness	acetochlor & safener	7EC
Confidence Xtra ^{15,5}	Winfield	Harness X	acet & dichlormid & atra	4.3 + 1.7F
Cornerstone/Plus ⁹	Winfield	Roundup	glyphosate-ipa salt	3SL
Corvus ^{27,2}	Bayer	-	isox&thiencarbazone&cyprosulf	1.88 & 0.75SC
Credit 41 Extra ⁹	Nufarm	Roundup	glyt-ipa salt	3SL
Credit Xtreme ⁹	Nufarm	-	glyphosate-ipa & K salt	2.5 + 2 SL
Crossbow ^{4,4}	Corteva	-	triclopyr-bee & 2,4-D-bee	1 + 2SL
Curtail ^{4,4}	Corteva	-	clopyralid-me & 2,4-D-3ipa salt	0.38 + 2SL

Product	Site of action-pg 100-101	Company	Brand equivalent	Active ingredients	Formulation
Curtail M ^{4,4}		Corteva	-	clopyralid-acid & MCPAioester	0.42 + 2.35SL
Dacthal		AMVAC	-	DCPA	6F
Dacthal		AMVAC	-	DCPA	75WDG
Deadbolt ^{6,4}		Wilbur-Ellis	-	bromoxynil-ester & 2,4-D-ester	2 + 2.5EC
Defol		Drexel	Na chlorat	Sodium chlorate	5SL
Detonate ⁴		Tenkoz	Banvel	dicamba-dma salt	4SL
Diablo ⁴		Nufarm	Banvel	dicamba-dma salt	4SL
Dicamba ⁴		Several	Banvel	dicamba-dma salt	4SL
DiFlexx ⁴		Bayer	Clarity	dicamba-dga & cyprosulfamide	4SL
DiFlexx Duo ⁴		Bayer	-	dic-dga & tembotriione & safener	1.86 + 0.27SC
Dimetric EXT ⁵		Winfield	Sencor	metribuzin	75DF
Dimetric ⁵		Winfield	Sencor	metribuzin	3F
Discover NG ¹		Syngenta	-	clodinafop & oil adjuvant	0.5EC
Diquat ²²		Nufarm	Reglone	diquat-dibromide salt	2SL
Diuron ⁷		Several	-	diuron	80WDG
Dog Fight ^{2,9}		Loveland	Extreme	imazethapyr-acid & glyt-ipa salt	0.17 + 2SL
Double Header ^{15,27}		Loveland	-	acetochlor & mesotrione	3.2 + 0.38
Draft ^{2,2}		Rotam	Harm Extr	thifensulfuron & tribenuron	50 + 25DF
Dual Magnum ¹⁵		Syngenta	-	S-metolachlor	7.62EC
Dual II Magnum ¹⁵		Syngenta	-	S-metolachlor & benoxacor safen	7.64EC
Duramax ⁹		Corteva	Rodeo	glyphosate-dma salt	4SL
Durango DMA ⁹		Corteva	Roundup	glyphosate-dma salt	4SL
Elevore ⁴		Corteva		halauxifen-methyl	0.572 EC
Encompass ¹⁴		Tenkoz	Valor	flumioxazin	51WDG
Engenia ⁴		BASF	-	dicamba-BAPMA salt	5SL
Enlist Duo ^{4,9}		Corteva		glyphosate-dma & 2,4-D-choline	1.7 + 1.6SL
Enlist One ⁴		Corteva		2,4-D-choline	3.8SL
Eptam ⁸		Gowan	-	EPTC	7EC
Escort XP ²		Bayer	Ally	metsulfuron-methyl	60XP
Establish ¹⁵		Tenkoz	Outlook	dimethenamid	6EC
Ethofumesate ¹⁶		GCS	Nortron	ethofumesate	4SC
Ethotron ¹⁶		UPL	Nortron	ethofumesate	4EC
Everest 3.0 ²		UPL	-	flucarbazone-Na salt & safener	1.75OD
EverpreX ¹⁵		Corteva	-	S-metolachlor	7.62 EC
Express SG ²		FMC	-	tribenuron-methyl	50SG
Extra Credit 5 ⁹		Nufarm	Roundup	glyphosate-ipa salt	3.75SL
Extreme ^{2,9}		BASF	-	imazethapyr-acid & glyt-ipa salt	0.17 + 2SL
Fallow Star ^{9,4}		Albaugh	Fallow Mst	glyt-ipa & dicamba-ipa salt	1.1 + 0.5SL
Far-Go EC ⁸		Gowan	-	triallate	4EC
Facet L ^{4,26}		BASF	-	quinclorac	1.5L
FeXapan ⁴		Corteva	XtendiMax	dicamba-dga salt + VaporGrip	2.9SL
Fierce ^{14,15}		Valent	-	flumioxazin + pyroxasulfone	33.5 + 42.5WDG
Fierce MTZ ^{5,14,15}		Valent		flumioxazin&pyroxasulfone+metri	0.5+0.64+1.5 SC
Firestorm ²²		UPL	Paraquat	paraquat-dichloride	3SL
FirstRate ²		Corteva	-	cloransulam-methyl	84WDG
Flexstar ¹⁴		Syngenta	-	fomesafen-Na salt & adjuvants	1.88EC
Flexstar GT 3.5 ^{14,9}		Syngenta	-	fomesafen & glyt & adjuvants	0.56 + 2.26SL
Foma 1.88 ¹⁴		Drexel	Flexstar	fomesafen-Na salt & adjuvants	1.88EC
Foma 2.0 ¹⁴		Drexel	Reflex	fomesafen-Na salt	2EC
FomAsate ^{14,9}		Drexel	Flexstr GT	fomesafen & glyt & adjuvants	0.56 + 2.26SL
Fomesafen1.88 ¹⁴		Willowood	Flexstar	fomesafen-Na salt & adjuvants	1.88EC
Forefront HL ^{4,4}		Corteva	-	aminopyralid-3ipNH ₄ & 2,4-D	0.41 + 3.33EC
Framework ³		Winfield	Prowl	pendimethalin	3.3EC
Frequency ²⁷		BASF	Impact	topramezone	2.8SC
Full Deck ^{4,4,4}		Helena	-	MCPA & fluroxypyr & clopyralid	2.48+ 0.66 + 0.57SL
FulTime NXT ^{15,5}		Corteva	-	acetochlor & atrazine	2.4 ME + 1.6L
Fusilade DX ¹		Syngenta	-	fluazifop-P butyl	2EC
Garlon 4 Ultra ⁴		Corteva	-	triclopyr-ester	4EC
Glory ⁵		ADAMA	Sencor	metribuzin	75DF

Product	Site of action-pg 100-101	Company	Brand equivalent	Active ingredients	Formulation
Glyphogan/Plus ⁹		ADAMA	Roundup	glyphosate-ipa salt	3SL
GlyStar 5Extra ⁹		Albaugh	Rodeo	glyphosate-ipa salt	4SL
GlyStar Gold ⁹		Albaugh	Roundup	glyphosate-ipa salt	3SL
GlyStar Original ⁹		Albaugh	Roundup	glyphosate-ipa salt	3SL
GlyStar Plus ⁹		Albaugh	Roundup	glyphosate-ipa salt	3SL
Goal ¹⁴		Corteva	Collide	oxyfluorfen	2EC
GoldSky ^{2,2,4}		Corteva	-	pyroxsulam&florasulam&flurox	0.11+0.018+0.71OD
Gramoxone SL 3.0 ²²		Syngenta	Paraquat	paraquat-dichloride	3SL
Graslan L ^{4,4}		Corteva	Grazon	picloram-3ipa & 2,4-D-choline	0.81 + 3SL
GrazonNext ^{4,4}		Corteva	-	aminopyralid-3ipa + 2,4-D-3ipa	0.33 + 2.67SL
Grazon P+D ^{4,4}		Corteva	Graslan	picloram-3ipa & 2,4-D-3ipa	0.54 + 2SL
GunSlinger ^{4,4}		Albaugh	Grazon	picloram-3ipamine&2,4-D-3ipa	0.54 + 2 S
Habitat ²		BASF	Arsenal	imazapyr-ipa salt	2SL
Halex GT ^{27,9,15}		Syngenta	-	mesotrione & glyt-K & S-meto	4.39 SC (1:10:10)
Halomax ²		Aceto	Permit	halosulfuron-methyl	75DF
Harmony SG ²		FMC	-	thifensulfuron-methyl	50SG
Harness ¹⁵		Bayer	-	acetochlor & furilazole safener	7EC
Harness Max ¹⁵		Bayer	-	acet & meso &furilazole safener	3.52 + 0.33EC
Harness Xtra ^{15,5}		Bayer	-	acet & furilazole & atrazine	4.3 + 1.7F
Harness Xtra 5.6L ^{15,5}		Bayer	-	acet & furilazole & atrazine	3.1 + 2.5F
Hat Trick ^{4,4,4}		Loveland	-	clop-me&fluroxy-mhe&MCPAe	0.51 + 0.51 + 1.8EC
Helmquat ²²		Helm Agro	Gramoxon	paraquat-dichloride	3SL
Herbivore ²		Winfield	Permit	halosulfuron-methyl	75DF
Hornet ^{2,4}		Corteva	-	flumetsulam & clopyralid-K salt	18.5 + 60WDG
Huskie ^{6,27}		Bayer	-	brom & pyrasulfotole & mefenpyr	1.75 + 0.31EC
Huskie Complete ^{6,27,2}		Bayer	-	brom&pyrasulf&thiencarb&mfnpnpr	1.46+0.26+0.042OD
Hydrothol 191		UPL	Herb. 273	endothall	2G
Hyvar X		Bayer	-	bromacil	80WP
Impact ²⁷		AMVAC	Armezon	topramezone	2.8SC
ImpactZ ^{5,27}		AMVAC		topramezone & atrazine	0.26 & 4SC
Impose ²		ADAMA	Plateau	imazapic-NH ₄ salt	2SL
Incinerate ²⁷		Winfield	Callisto	mesotrione	4SE
Instigate ^{2,27}		Corteva	Realm Q	rimsulfuron & mesotrione	4.17 + 41.67WDG
Intensity ¹		Loveland	Select	clethodim	2EC
Intensity One ¹		Loveland	Select Max	clethodim	1EC
Interline ¹⁰		UPL	Liberty	glufosinate-NH ₄ salt	2.34SL
Karmex ⁷		ADAMA	Diuron	diuron	80XP
Keystone LA NXT ^{15,5}		Corteva	Harness	acetochlor & atrazine	4 + 1.5L
Kochiavore ^{6,4}		Winfield	-	2,4-De&bromox-e&fluroxypyrr-e	1.67&1.67&0.67EC
Krovar I ^{6,7}		Bayer	-	bromacil & diuron	40 + 40DF
Landmaster BW ^{9,4}		Albaugh	-	glyphosate-ipa & 2,4-D-ipa salt	0.9 + 1.5SL
Latigo ^{4,4}		Helena	Weedmstr	dicamba-acid & 2,4-D-acid	1.8 + 2.4 SL
Latir ^{2,14}		ADAMA	-	flumioxazin & imazethapyr	31.5 + 23.5WDG
Laudis ²⁷		Bayer	-	tembotriione & isoxadifen safener	3.5 + 1.75SC
Liberty 280 ¹⁰		BASF	-	glufosinate-NH ₄ salt	2.34SL
Linex ⁷		TKI	-	linuron	4L
Lorox ⁷		TKI	-	linuron	50DF
Lumax EZ ^{5,27,15}		Syngenta	-	atrazine & mesotrione & S-metol	0.94 + 0.25 + 2.5SE
Mad Dog/Plus ⁹		Loveland	Roundup	glyphosate-ipa salt	3SL
Maestro 2EC ⁶		Nufarm	Buctril	bromoxynil-ester	2EC
Maestro 4EC ⁶		Nufarm	Buctril	bromoxynil-ester	4EC
Maestro Adv. ^{6,4}		Nufarm	Bron. Adv.	bromoxynil-ester & MCPA-ester	2.5 + 2.5EC
Maestro D ^{6,4}		Nufarm	-	bromoxynil-ester & 2,4-D-ester	2 + 1.9EC
Maestro MA ^{6,4}		Nufarm	Bronate	bromoxynil-ester & MCPA-ester	2 + 2EC
Makaze ⁹		Loveland	Roundup	glyphosate-ipa salt	3SL
Makaze Yield Pro ⁹		Loveland	-	glyphosate-ipa salt+IBA+cytokinin	3+0.005+0.0009SL
Marvel ^{14,14}		FMC	-	fomesafen & fluthiacet	2.88 + 0.12SC
Matador ^{15,5,2}		Loveland	-	metochlr & metrib & imazethapyr	4 + 0.56 + 0.13SL
Matador S ^{15,5,2}		Loveland	-	metochlr & metrib & imazethapyr	3.38 + 0.75 + 0.17SL

Product ^{Site of action-pg 100-101}	Company	Brand equivalent	Active ingredients	Formulation
Matrix ²	Corteva	-	rimsulfuron	25DF
Mauler ⁵	Valent	Sencor	metribuzin	4F
MCPA amine ⁴	Several	-	MCPA-amine	4SL
MCPA ester ⁴	Several	-	MCPA-ester	4EC
Mes-O-sate ^{27,9,15}	Drexel	Halex GT	mesotrione & glyt-K & S-meto	4.39 SC (1:10:10)
MesoTryOne ²⁷	Drexel	Callisto	mesotrione	4SE
Me-Too-Lachlor ¹⁵	Drexel	Dual Mag.	metolachlor	8EC
Me-Too-Lachlor II ¹⁵	Drexel	Dual II M	metolachlor & benoxacor safen	7.8EC
Method ⁴	Bayer	-	aminocyclopyrachlor-K	2SL
Metribuzin ⁵	ADAMA	Sencor	metribuzin	75DF
Milestone / VM ⁴	Corteva	-	aminopyralid-3ipNH ₄ salt	2SL
Moxy ⁶	Winfield	Buctril	bromoxynil-ester	2EC
NextStep NG ¹	UPL	Discover	clodinafop & oil adjuvant	0.5EC
Nimble ^{2,2}	FMC	Harm Extr	thifensulfuron & tribenuron 2:1	50 + 25DF
Nortron SC ¹⁶	Bayer	-	ethofumesate	4EC
Olympus ²	Bayer	-	propoxycarbazone-Na salt	70WDG
OpenSky ^{2,4}	Corteva	-	pyroxslam&fluroxypyrr	0.107+0.95SE
Orion ^{2,4}	Syngenta	-	florasulam & MCPA-ehe	0.033 + 2.34EC
Osprey ²	Bayer	Silverado	mesosulfuron-methyl	4.5WDG
Oust XP ²	Bayer	-	sulfometuron-methyl	75XP
Oust Extra ^{2,2}	Bayer	-	sulfometuron & metsulfuron	56.25 + 15DF
Outflank ¹⁴	ADAMA	Valor	flumioxazin	51WDG
Outlaw ^{4,4}	Helena	Weedmstr	2,4-D-ehe & dicamba-acid	1.45 + 1.09SL
Outlook ¹⁵	BASF	-	dimethenamid-P	6EC
Outrider ²	Valent	Maverick	sulfosulfuron	75DF
Overdrive ^{4,19}	BASF	Distinct	dicamba-Na & diflufenzopyr-Na	50 + 20WDG
Palace ^{15,27}	Tenkoz	Zemax	S-metolachlor & mesotrione	3.34 + 0.33SC
Panoflex ^{2,2}	Corteva	-	thifensulfuron & tribenuron 1:4	10 + 40SG
Panther SC ¹⁴	Nufarm	Valor	flumioxazin	4SC
Panther Pro ^{2,5,14}	Nufarm		flumioxazin&metri&imazethapyr	0.67 + 3 + 0.56SC
Parallel ¹⁵	ADAMA	Dual II	metolachlor & safener	7.8EC
Parallel PCS ¹⁵	ADAMA	Dual	metolachlor	8EC
Paraquat ²²	Willowood	Gramoxon	paraquat-dichloride	3SL
Parazone ²²	AMVAC	Gramoxon	paraquat-dichloride	3SL
Parity ¹	Tenkoz	Puma	fenoxaprop-P ethyl	1EC
Pathfinder II ⁴	Corteva	Garlon	triclopyr-acid/bee	0.75EC
Patriot ²	Nufarm	Escort	metsulfuron-methyl	60DF
Peak ²	Syngenta	-	prosulfuron	57DF
PerfectMatch ^{2,4,4}	Corteva	-	pyroxslam & clopyr & fluroxypyrr	1.66SE
Permit ²	Gowan	-	halosulfuron-methyl	75DF
Perspective ^{4,2}	Bayer	-	aminocyclopyrachlor+chlorsulf	39.5 + 15.8DF
Phoenix ¹⁴	Valent	-	lactofen & adjuvants	2EC
Pin-Dee ³	Drexel	Prowl EC	pendimethalin	3.3EC
Pixxaro EC ^{4,4}	Corteva	-	Halauxifen-methyl + fluroxypyrr	2.43 EC
Plateau ²	BASF	-	imazapic-NH ₄ salt	2SL
Plotter ²	Rotam	Ally	metsulfuron-methyl (cropland)	60DF
Poast ¹	BASF	-	sethoxydim	1.5EC
Portfolio4F ¹⁴	Wilbur-Ellis	Spartan	sulfentrazone	4L
PowerFlex HL ²	Corteva	-	pyroxslam+cloquintocet safener	13.1WDG
Pramitol EC	Several	-	prometon	25EC
Pramitol 5S	Several	-	prometon	5PS
Prefix ^{15,14}	Syngenta	-	S-metolachlor & fomesafen	4.34 + 0.95EC
Pre-Pare ²	UPL	Everest	flucarbazone-Na salt	70WDG
Prequel ^{2,27}	Corteva	-	rimsulfuron & isoxaflutole	15 + 30SG
Presidual ^{5,5}	Winfield	Boundary	S-metolachlor & metribuzin	5.25 + 1.25L
Primero ²	Rotam	Accent	nicosulfuron	75DF
Princep 4L ⁵	Syngenta	-	simazine	4L
Princep Caliber 90 ⁵	Syngenta	-	simazine	90DF
Prowl H2O ³	BASF	-	pendimethalin	3.8ACS

Product ^{Site of action-pg 100-101}	Company	Brand equivalent	Active ingredients	Formulation
Pruvin ²	ADAMA	Resolve	rimsulfuron	25SG
Purestand ²	Nufarm	Ally	metsulfuron-methyl	60DF
Pursuit ²	BASF	-	imazethapyr-NH4 salt	2AS
Python ²	Corteva	-	flumetsulam	80WDG
Quelex ^{4,2}	Corteva	-	halauxifen & florasulam	0.1 + 0.1WDG
Quik-Quat ²²	Drexel	Paraquat	paraquat-dichloride	3SL
Range Star ^{4,4}	Albaugh	Weedmstrt	2,4-D-dea & dicamba-dea salt	2.87 + 1SL
Rapport BrdSpec ^{2,2}	Nufarm	Affinity BS	thifensulfuron & tribenuron 1:1	25 + 25DF
Rapport TankMix ^{2,2}	Nufarm	Affinity TM	thifensulfuron & tribenuron 4:1	40 + 10DF
Raptor ²	BASF	-	imazamox-NH4 salt	1SL
Realm Q ^{2,27}	Corteva	Instigate	rimsulfuron & meso. & isoxadifen	7.5+31.25SG
Reflex ¹⁴	Syngenta	-	fomesafen-Na salt	2EC
Reglone ²²	Syngenta	-	diquat-dibromide salt	2SL
Relegate ⁴	Nufarm	Remedy	triclopyr-ester	4EC
Rely 280 ¹⁰	BASF	Liberty	glufosinate-NH4 salt	2.34SL
Remedy Ultra ⁴	Corteva	-	triclopyr-ester	4EC
Resicore ^{4,15,27}	Corteva	-	clopyralid & acetochlor & meso	0.19 + 2.8 + 0.3SC
Resolve Q ^{2,2}	Corteva	Alluvex	rimsulfuron & thifen & isoxadifen	18.4 + 4SG
Resource ¹⁴	Valent	-	flumiclorac-ester	0.86SL
Revulin Q ^{2,27}	Corteva	-	nicosulfuron & meso. & isoxadifen	14.4 + 36.8SG
Rifle ⁴	Loveland	Banvel	dicamba-dma salt	4SL
Rifle D ^{4,4}	Loveland	Weedmstrt	2,4-D-dea & dicamba-dea salt	2.87 + 1SL
Rimfire Max ^{2,2}	Bayer	-	propoxy-Na & meso & mefenpyr	4.76 + 1.91WDG
Ringside ¹⁴	Tenkoz	Reflex	fomesafen-Na salt	2EC
Rodeo ⁹	Corteva	-	glyphosate-ipa salt	4SL
Ro-Neet SB ⁸	Helm Agro	-	cycloate	6EC
RT 3 ⁹	Bayer	Roundup	glyphosate-K salt	4.5SL
RU PowerMax ⁹	Bayer	Roundup	glyphosate-K salt	4.5SL
RU WeatherMax ⁹	Bayer	Roundup	glyphosate-K salt	4.5SL
Rugged ⁴	Winfield	2,4-D acid	2,4-D-acid	3.49EC
Rumble ¹⁴	ADAMA	Flexstar	fomesafen-Na salt & adjuvants	1.88EC
Saber ⁴	Loveland	2,4-D a	2,4-D-dma salt	3.8SL
Salvo ⁴	Loveland	2,4-D e	2,4-D-ester	5EC
Sandea ²	Gowan	Permit	halosulfuron-methyl	75DF
Scorch ^{4,4,4}	Nufarm	-	2,4-D & floroxypy & dicamba	3 + 0.75 + 1EC
Scout ¹⁰	Valent	Liberty	Glufosinate-NH4 Salt	2.34 SL
Section ¹	Winfield	Select	clethodim	2EC
Section Three ¹	Winfield	Shadow	clethodim	3EC
Select Max ¹	Valent	-	clethodim	1EC
Sentrallas ^{2,4}	FMC	-	thifensulfuron & floroxypy	0.25 & 1.3OD
Sequence ^{9,15}	Syngenta	-	glyphosate-K salt & S-metolachlor	2.25 + 3SC
Shadow ¹	UPL	Select	clethodim	3EC
Sharpen ¹⁴	BASF	-	saflufenacil	2.85SC
Showdown ⁹	Helena	Roundup	glyphosate-ipa & NH4 salt	2.7 + 0.3SL
Shredder E-99 ⁴	Winfield	-	2,4-D-beester	6.1EC
Sierra ²	Syngenta	Everest	flucarbazone-Na salt & safener	3.5SC
Simazine L ⁵	Several	Princep	simazine	4L
Simazine DF ⁵	Several	Princep	simazine	90DF
Sinbar	TKI	-	terbacil	80WP
Sinister ¹⁴	Helena	Reflex	fomesafen-acid	2.87SL
Smack Down ^{15,4,2}	Loveland	SureStart	aceto&clopyr&flumet&dichlormid	3.75+0.29+0.12SC
Solida ²	FMC	Matrix	rimsulfuron	25DF
Solstice ^{27,14}	FMC	-	mesotricone & fluthiacet	3.784 + 0.216SC
Sonalan HFP ³	Gowan	-	ethalfluralin	3EC
Sonalan 10G ³	Gowan	-	ethalfluralin	10G
Sonic ^{2,14}	Corteva	Authry 1st	cloransulam & sulfentrazone	7.9 + 62.1WDG
Spartan ¹⁴	FMC	-	sulfentrazone	4L
Spartan Charge ^{14,14}	FMC	-	carfentrazone & sulfentrazone	0.35 + 3.15SE
Spartan Elite ^{15,14}	FMC	BroadAxe	S-metolachlor & sulfentrazone	6.3 + 0.7EC

Product ^{Site of action-pg 100-101}	Company	Brand equivalent	Active ingredients	Formulation
Spike ⁷	Corteva	-	tebuthiuron	80DF
SpitFire ^{4,4}	Nufarm	-	dicamba & 2,4-D	0.5 + 3.07SL
Spur ⁴	Albaugh	Stinger	clopyralid-moneoa salt	3SL
Stalker ²	BASF	Arsenal	imazapyr-ipa salt	2SL
Starane Flex ^{2,4}	Corteva	-	florasulam & fluroxypyr	0.042 + 0.833EC
Starane NXT ^{6,4}	Corteva	-	bromoxynil & fluroxypyr-ester	2.33 + 0.583EC
Starane Ultra ⁴	Corteva	-	fluroxypyr-ester	2.8EC
Status ^{4,19}	BASF	-	dic-Na&diflufenzpr-Na&isoxadifen	40 + 16WDG
Streamline ^{4,2}	Bayer	-	aminocyclopyrachlor + metsulf	39.5 + 12.6DF
Stealth ³	Loveland	Prowl	pendimethalin	3.3EC
Sterling Blue ⁴	Winfield	Clarity	dicamba-dga salt	4SL
Stinger ⁴	Corteva	Stinger	clopyralid-moneoa salt	3SL
Storm ^{14,6}	UPL	-	acifluorfen & bentazon	1.33 + 2.67SL
Strut ⁴	Loveland	Clarity	dicamba-dga salt	4SL
Supremacy ^{4,2,2}	UPL	-	fluroxypyr & thifen & tribenuron	25 + 4.5 + 1.5WDG
SureStart II ^{15,4,2}	Corteva	-	aceto&clopyr&flumet&dichlormid	3.75+0.29+0.12SC
Surflan ³	UPL	-	oryzalin	4EC
Surpass NXT ¹⁵	Corteva	-	acetochlor & dichlormid safener	6.4EC
Surveil ^{14,2}	Corteva	Gangster	flumioxazin & cloransulm	36 + 12WDG
Sword ⁴	Loveland	-	MCPA ester	5.2EC
Tacoma ¹	Winfield	Puma	fenoxaprop-P ethyl	1EC
Tailwind ^{15,5}	ADAMA	Boundary	S-metolachlor & metribuzin	5.25 + 1.25L
Talinor ^{6,27}	Syngenta	-	bromoxynil & bicyclopyrone	1.77EC
Tapout ¹	Helena	Select	clethodim	1EC
Targa ¹	Gowan	Assure II	quizalofop-ethyl	0.88EC
Tavium ^{4,15}	Syngenta	-	Dicamba-dga salt + VaporGrip + S-metolachlor	3.38 CS
Teammate ²	Corteva	-	pyroxsulam & safener	21.5WDG
Thistroil ⁴	Nufarm	-	MCPB	2EC
Thunder ²	Albaugh	Pursuit	imazethapyr-NH4 salt	2AS
Thunder Master ^{2,9}	Albaugh	Extreme	imazethapyr-acid & glyph-ipa salt	0.17 + 2SL
Top Gun ¹⁴	Loveland	Reflex	fomesafen-Na salt	2EC
Tordon 22K ⁴	Corteva	-	picloram-K salt	2SL
Torment ^{14,2}	ADAMA	-	fomesafen & imazethapyr	2 + 0.5
Transline ⁴	Corteva	Stinger	clopyralid-moneoa salt	3SL
Travallas ^{2,2,4}	FMC	-	metsulfuron & thifen & fluroxypyr	0.025&0.25&1.3OD
Treaty ²	Nufarm	Harmony	thifensulfuron-methyl	75DF
Treaty Extra ^{2,2}	Nufarm	Harm. Extr	thifensulfuron & tribenuron	50 + 25DF
Treflan HFP ³	Gowan	-	trifluralin	4EC
Treflan TR-10 ³	Gowan	-	trifluralin	10G
TriCor 4F ⁵	UPL	Sencor	metribuzin	4F
TriCor 75DF ⁵	UPL	Sencor	metribuzin	75DF
Trifluralin EC ³	Several	Treflan	trifluralin	4EC
Triflurex ³	ADAMA	Treflan	trifluralin	4EC
Trimec Classic ^{4,4,4}	PBI	-	2,4-D-amine & MCPP & dicamba	3.32EC
TripleFlex II ^{15,4,2}	Bayer	SureStart	aceto&clopyr&flumet&furilazole	3.75+0.38+0.12SC
Trisidual ^{15,4,2}	Winfield	SureStart	aceto&clopyr&flumet&furilazole	3.75+0.38+0.12SC
Triumph 22K ⁴	Albaugh	Tordon	picloram-K salt	2SL
Trooper 22 K ⁴	Nufarm	Tordon	picloram-K salt	2SL
Trooper Extra ^{4,4,4}	Nufarm	-	picloram-3ipa & 2,4-D-3ipa & dic	0.5 + 2 + 0.5S
Trooper P+D ^{4,4}	Nufarm	Grazon	picloram-3ipa & 2,4-D-3ipa salt	0.54 + 2 S
Trooper Pro ^{4,4}	Nufarm	Surmount	picloram-3ipa & fluroxypyr-mhe	1 + 1S
Trump Card ^{4,4}	Helena	-	fluroxypyr-ester & 2,4-D-acid	0.66 + 2.65EC
Truslate ^{4,4}	Nufarm	WideMatch	clopyralid-me & fluroxypyr-mhe	0.75 + 0.75EC
Truslate Pro ^{4,4,4}	Nufarm	-	clop-me & flurox-mhe & MCPCAE	0.5 + 0.64 + 1.75EC
Trust ³	Winfield	Treflan	trifluralin	4EC
Trycera ⁴	Helena	Garlon	triclopyr-acid	4EC
Tuscany SC ¹⁴	Nufarm	Valor	flumioxazin	4 SC
Ultra Blazer ¹⁴	UPL	-	acifluorfen-Na salt	2SL
Unison ⁴	Helena	Hardball	2,4-D-acid	1.74SL

Product ^{Site of action-pg 100-101}	Company	Brand equivalent	Active ingredients	Formulation
UpBeet ²	FMC	-	triflusulfuron-methyl	50DF
Valor EZ ¹⁴	Valent	-	flumioxazin	4SC
Valor SX ¹⁴	Valent	-	flumioxazin	51WDG
Vanquish ⁴	Nufarm	-	dicamba-dga salt	4SL
Varisto ^{6,2}	BASF	-	bentazon & imazamox	4 + 0.19SL
Varro ²	Bayer	-	thiencarbazone & mefenpyr	0.083OD
Vaquero ¹	Wilbur-Ellis	Select	clethodim	2EC
Vastlan ⁴	Corteva	Garlon	triclopyr-choline	4SL
Velossa ⁵	Helena	Velpar	hexazinone	2L
Velpar ⁵	TKI	-	hexazinone	2L
Verdict ^{14,15}	BASF	-	saflufenacil & dimethenamid-P	0.57 + 5EC
Verdure X ²²	Helm Agro	Reglone	diquat-dibromide salt	2SL
Victory ²	Nufarm	Express	tribenuron-methyl	75DF
Vida ¹⁴	Gowan	ET	pyraflufen-ethyl	0.208EC
Viewpoint ^{4,2,2}	Bayer	-	aminocyclopyrchlor&imazapyr&met	22.8 + 31.6 + 7.3DF
Vise ^{15,14}	ADAMA	Prefix	S-metolachlor & fomesafen	4.34 + 0.95EC
Vision ⁴	Helena	Banvel	dicamba-acid	3.8SL
Vista XRT ⁴	Corteva	Starane	fluoxypyrr-ester	2.8AE
Volley ¹⁵	Tenkoz	Surpass	acetochlor & dichlormid safener	6.4EC
Volta ²	Rotam	Harmony	thifensulfuron-methyl	75DF
Volta Extra ^{2,2}	Rotam	Harm. Extr	thifensulfuron & tribenuron	50 + 25DF
Volunteer ¹	Tenkoz	Select	clethodim	2EC
Voucher ^{4,4}	Helena	Strn+Swrd	MCPA-acid & fluoxypyrr-ester	2.6 + 0.64SL
Warrant ¹⁵	Bayer	~Degree	acetochlor (microencapsulated)	3ME water based
Warrant Ultra ¹⁵	Bayer		acetochlor & fomesafen	2.83 + 0.64EC
Weed Blast ^{5,7}	Loveland	-	bromacil & diuron	4 + 4G
Weedone 638 ^{4,4}	Nufarm	-	2,4-D-acid & 2,4-D-ester	2.8EC
Weedmaster ^{4,4}	Nufarm	-	2,4-D-dea & dicamba-dea	2.87 + 1SL
Weld ^{4,4,4}	Winfield	-	MCPAe & fluoxypyrr & clopyralid	1.75 + 0.64 + 0.5EC
Whiteout ⁴	Loveland	-	2,4-D-ehe (solventless)	5.64EC
WideMatch ^{4,4}	Corteva	-	clopyralid-meа & fluoxypyrr-mhe	0.75 + 0.75EC
Wildcard ⁴	Helena	-	MCPA-ester	4EC
Wildcard Xtra ^{6,4}	Helena	Bronate	bromoxynil-ester & MCPA-ester	2 + 2EC
Wolverine Adv. ^{1,27,6}	Bayer	-	fenoxy&pyrasulf&bromox&mefenpr	0.4 & 0.13 & 1.05EC
XtendiMax ⁴	Bayer	Clarity	dicamba-dga salt + VaporGrip	2.9SL
Yukon ^{4,2}	Gowan	-	dicamba-Na & halosulfuron-CH3	55 + 12.5 WDG
Zidua ¹⁵	BASF	-	pyroxasulfone	85WDG
Zidua SC ¹⁵	BASF	-	pyroxasulfone	4.17SC
Zidua Pro ^{2,14,15}	BASF	-	pyrox&saflufenacil&imazethapyr	2.28+0.48+1.33SC
2,4-D Products ⁴ 2,4-D amine ⁴ 2,4-D ester ⁴ LV ester ⁴	Several	-	2,4-D	3.8SL 3.8EC 5.7EC

North Dakota Adjuvant Compendium

For other adjuvants: www.herbicide-adjuvants.com/

Nonionic Surfactant (NIS)			
Activator 90	Loveland	\$32.00 gal	0.25 to 0.5% v/v
APSA-80	Amway	\$32.00 gal	0.25 to 0.5% v/v
ChemSurf 90	United Suppl.	\$32.00 gal	0.25 to 0.5% v/v
Wetcit	Oro Agri	\$75.00 gal	0.25 to 0.5% v/v
Haf-Pynt	Drexel	\$31.00 gal	0.25 to 0.8% v/v
Hypertonic	CHS	\$33.00 gal	0.25 to 0.5% v/v
Induce	Helena	\$31.00 gal	0.25 to 0.5% v/v
Insist 90	Willbur-Ellis	\$24.00 gal	0.25 to 0.5% v/v
K-Tone	West Central	\$33.00 gal	0.25 to 0.5% v/v
Liberate LeciTech	Loveland	\$44.00 gal	0.25 to 0.5% v/v
Pen-A-trate II	Precision Labs	\$32.00 gal	0.25 to 0.5% v/v
Prefer 90	West Central	\$33.00 gal	0.25 to 0.5% v/v
Preference	Winfield	\$35.00 gal	0.25 to 0.5% v/v
Protx	Precision Labs	\$100.00 g	0.125% v/v
R-11	Wilbur-Ellis	\$32.00 gal	0.25 to 0.5% v/v
Rainier EA	Wilbur-Ellis	\$37.00 gal	0.25 to 0.5% v/v
Surf-AC 910	Drexel	\$25.00 gal	0.25 to 0.5% v/v
Tradition 93	Rosens	\$ - gal	0.25 to 0.5% v/v
Translate	United Suppl.	\$38.00 gal	0.25 to 0.5% v/v
Wet-Sol 99	Schaeffers	\$28.00 gal	0.25 to 0.5% v/v

NIS Approved for use in Water

Surfactants approved for use in bodies of water are:

Activate Plus	Agridex	Class Act NG	Induce
Level 7	Liberate L-Tech	Preference	R-11
Top Surf	X-77		

Surfactant & Silicone

Freeway	Loveland	\$110.00 g	0.75 to 2 pt/100 gal
Kinetic	Helena	\$115.00 g	0.75 to 2 pt/100 gal
Sil-Fact	Drexel	\$45.00 gal	0.75 to 2 pt/100 gal
Silkin	Winfield	\$100.00 g	0.75 to 2 pt/100 gal
Speed	Precision Labs	\$135.00 g	0.25 to 2 pt/100 gal
Sur-Plus	United Suppl.	\$87.00 gal	0.5 to 2 pt/100 gal
Sylcoat	Wilbur-Ellis	\$122.00 gl	0.75 to 2 pt/100 gal

Surfactant & Deposition/Retention (Drift Retardant)

Cerium Elite	West Central	\$41.00 gal	1 qt/100 gal
Fixate Pro	West Central	\$41.00 gal	1 qt/100 gal
MasterLock	Winfield	\$55.00 gal	5 to 8 fl oz/A
Parachute	West Central	\$42.00 gal	3 to 4 fl oz/A

Surfactant & Drift Retardant & Antifoam

Powerlock	Winfield	\$55.00 gal	5 to 8 oz/A
-----------	----------	-------------	-------------

Surfactant & Nano-technology (carbon tubes)

Chem Xcel Gen 3	C&R Enterprise	\$62.50 gal	22-25 fl oz/gal herb.
Nano Excel	Enviro Science	-	2 to 8 fl oz/A
Nano-Revolution 3.0	Max Systems	\$145.00 g	2 to 8 fl oz/A

Petroleum Oil Concentrate (POC/COC)

Agri-Dex	Helena	\$21.00 gal	1 to 2 pt/A
Herbimax	Loveland	\$22.00 gal	1 to 2 pt/A
Rendur Crop Oil	West Central	\$14.00 gal	1 to 2 pt/A
Peptoil	Drexel	\$12.00 gal	1 to 2 pt/A
Prime Oil	Winfield	\$15.00 gal	1 to 2 pt/A
Protx Aerial	Precision Labs	\$21.00 gal	0.5 pt/A
R-Way	Rosens	\$ - gal	1 to 2 pt/A
ROC Crop Oil	Wilbur-Ellis	\$15.00 gal	1 to 2 pt/A

Crop (Soybean) Oil Concentrate

BeanOil	Drexel	\$15.00 gal	1 to 2 pt/A
High Surfactant Petroleum Oil Concentrate (HSPOC)			
Between	United Suppl.	\$20.00 gal	1 to 2 pt/A
Diplomat	Rosens	\$21.00 gal	1 to 2 pt/A
Exchange	Precision Labs	\$26.00 gal	1 to 2 pt/A
Hi-Load	Simplot	\$26.00 gal	1 to 2 pt/A
High Load	Wilbur-Ellis	\$26.00 gal	1 to 2 pt/A
High Mark	Loveland	\$26.00 gal	1 to 2 pt/A
Sitka	CHS	\$24.00 gal	1 to 2 pt/A
Stake	West Central	\$24.00 gal	1 to 2 pt/A
Superb HC	Winfield	\$25.00 gal	1 to 2 pt/A

Methylated Seed Oil (MSO)

Emulate	CHS	\$22.00 gal	1 to 2 pt/A
Fire-Zone	Helena	\$27.00 gal	1 to 2 pt/A
Hasten	Wilbur-Ellis	\$34.00 gal	1 to 2 pt/A
MES-100	Drexel	\$15.00 gal	1 to 2 pt/A
MSO Leci-Tech	Loveland	\$27.00 gal	1 to 2 pt/A
MSO Ultra	Precision Labs	\$26.00 gal	1 to 2 pt/A
Noble	Winfield	\$23.00 gal	1 to 2 pt/A
Persist Ultra	J.R. Simplot	\$20.00 gal	1 to 2 pt/A
Premium MSO	Helena	\$20.00 gal	1 to 2 pt/A
Succeed	United Suppl.	\$19.00 gal	1 to 2 pt/A
Sundance II	Rosens	\$21.00 gal	1 to 2 pt/A
Superspread MSO	Wilbur-Ellis	\$27.00 gal	1 to 2 pt/A
Upland MSO	West Central	\$22.00 gal	1 to 2 pt/A

MSO & Organosilicone Surfactant

Air Force	United Suppl.	\$47.00 gal	4 to 6 fl oz/A
Dyne-Amic	Helena	\$57.00 gal	4 to 6 fl oz/A
Inergy	Winfield	\$55.00 gal	4 to 6 fl oz/A
Sil-MES 100	Drexel	\$40.00 gal	4 to 6 fl oz/A
Syl-Tac	Wilbur-Ellis	\$63.00 gal	4 to 6 fl oz/A

MSO & Basic pH Blend

Entro	Various	\$28.00 gal	1 to 2 pt/A
Renegade EA	Wilbur-Ellis	\$30.00 gal	1 to 2 pt/A

MSO & Deposition/Retention (Drift Retardant)

StrikeLock	Winfield	\$ - gal	0.5 to 1 pt/A
------------	----------	----------	---------------

MSO & Surfactant & Deposition/Retention (Drift Retardant)

Plexus	Rosens	\$ - gal	10 to 12 fl oz/A
--------	--------	----------	------------------

High Surfactant Methylated Oil Concentrate (HSMOC)

Cide Winder	Helena	\$42.00 gal	1 to 1.5 pt/A
Destiny HC	Winfield	\$40.00 gal	1 to 1.5 pt/A
Duce	Helena	\$36.00 gal	1 to 1.5 pt/A
Glacier EA	Wilbur-Ellis	\$50.00 gal	1 to 1.5 pt/A
Hot MES	Drexel	\$20.00 gal	1 to 1.5 pt/A
Hybrid	Miller	\$34.50 gal	1 to 1.5 pt/A
Kixyt	Precision Labs	\$44.00 gal	1 to 1.5 pt/A
Savvy	West Central	\$37.00 gal	1 to 1.5 pt/A
Top Shelf	Loveland	\$32.00 gal	1 to 1.5 pt/A
Woodside	CHS	\$37.00 gal	1 to 1.5 pt/A

ADJUVANTS CONTAINING AMMONIUM
Ammonium sulfate (AMS) / Urea ammonium nitrate (UAN)

Fertilizer			
AMS (Dry)	Various	\$0.35 lb	4 to 8.5 lb/100 gal
AMS (liquid)	Various	\$6-9 gal	2 to 4 qt/A
28% UAN/Bulk	Various	\$3-10 gal	2 to 4 qt/A

AMS & Surfactant (NIS)			
Cayuse Plus	Wilbur-Ellis	\$27.00 gal	2 to 6 qt/100 gal
Class Act NG	Winfield	\$13.00 gal	2.5% v/v
Class Act Flex	Winfield	\$15.00 gal	1 to 4 % v/v
Deliver	Precision Labs	\$14.00 gal	2.5% v/v
Impressive DB	Rosens	\$1.25 lb	2.25 lb/A
Powerhouse	Rosens	\$12.00 gal	5 to 10 qt/100 gal
Precinct	West Central	\$13.00 gal	2.5% v/v
Re-Duce	Helena	\$12.00 gal	1% v/v
Surfate	Loveland	\$23.00 gal	1% v/v
Ultra Surf AMS	United Suppl.	\$10.00 gal	2.5% v/v
Wheelhouse	CHS	\$13.00 gal	2.5% v/v

AMS & Drift Retardant (Deposition)			
AMS 20/10	United Suppl.	\$1.60 lb	10 lb/100 gal
Array	Rosens	\$2.50 lb	9 lbs/100 gal
Lox Plus	Drexel	\$15.00 gal	1 to 2 gal/100 gal
StrikeZone MXD	Helena	\$5.00 gal	2 lb/100 gal
Vector	Rosens	\$7.50 gal	2 lb/100 gal

AMS & Defoamer			
AMS-Xtra	Drexel	\$4.00 gal	2.5 to 5% v/v
Omnix LDF	Precision Labs	\$9.00 gal	2.5 to 5% v/v

AMS & Deposition & Defoamer			
AMS-Supreme	Drexel	\$15.00 gal	2.5 to 5% v/v
Border Xtra DF	Precision Labs	\$2.00 lb	18 lb/100 gal
Border Xtra 8L	Precision Labs	\$13.00 gal	2.5% v/v
Drift-Gard	Rosens	\$ - gal	9 lb/100 gal

AMS & Surfactant & Deposition & Defoamer			
AMS-All	Drexel	\$11.00 gal	1 to 5 gal/100 gal
Blue Diamond	NWC,Emerado	\$15.00 gal	1 to 2 qt/100 gal
Bronc Triple	Wilbur-Ellis	\$43.00 gal	10 lb/100 gal
Pay Off Plus	United Suppl.	\$2.00 lb	10 lb/100 gal
Zenith	Rosens	\$1.80 lb	1.5 to 2.25 lb/A

AMS & Surfactant & Paraffinic oil			
Flame	Loveland	\$42.00 gal	0.5% v/v

AMS & WCA* (AMS Replacement)			
Alliance	Winfield	\$18.00 gal	1.25% v/v
Bronc Max	Wilbur-Ellis	\$25.00 gal	0.5 to 1% v/v
Choice W-Master	Loveland	\$30.00 gal	0.5% v/v
Enact	Rosens	\$25.00 gal	0.5% v/v
SeQuel	Helena	\$17.00 gal	1 to 5 pt/100 gal
Transport LpH	Precision Lab	\$20.00 gal	0.5% v/v

AMS & WCA* & Deposition			
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
Double Down	United Suppl.	\$8.00 gal	2.5 gal/100 gal
Rush	Winfield	\$25.00 gal	2 to 4 qt/100 gal

AMS & WCA* & Deposition & Defoamer

Holzi	Drexel	\$1.60 lb	9 lb/100 gal
Stay Down	Rosens	\$ - gal	5 lb/100 gal
AMS & WCA* & Surfactant & Deposition & Defoamer			
Veracity	West Central	\$26.00 gal	3 qt/100 gal
Basic pH Blend			
Axon	CHS	\$24.00 gal	1% v/v
Linkage	West Central	\$24.00 gal	1% v/v
Newtone	Winfield	\$30.00 gal	1% v/v
Quad 7	Loveland	\$22.00 gal	1% v/v
Sequestra	Drexel	\$24.00 gal	1% v/v

Acidic AMS Replacement (contains AMADS)			
AMADS - Monocarbamide dihydrogen sulfate = urea + sulfuric acid			
Aduro	Winfield	\$32.00 gal	4 pt/100 gal
Brimstone	Wilbur-Ellis	\$42.00 gal	4 pt/100 gal
ET-4000	MK Ag Service	\$31.00 gal	4 pt/100 gal
Fixate	CHS	\$32.00 gal	4 pt/100 gal
Gun Smoke	Loveland	\$40.00 gal	4 pt/100 gal
Hel-Fire	Helena	\$36.00 gal	4 pt/100 gal
Import	Precision Labs	\$37.00 gal	4 pt/100 gal
Jackhammer	West Central	\$32.00 gal	4 pt/100 gal

Acidic WCA*			
ET-4000	MK Ag Service	\$31.00 gal	4 pt/100 gal
Regulator 2.0	Max Systems	\$22.00 gal	2 to 4 qt/100 gal

Acidic WCA* & Surfactant & Base Oil			
Simplyx	Precision Labs	\$40.00 gal	0.5 pt/A

*Non ammonium / non-AMS water conditioning agent

ADJUVANTS CONTAINING NO AMMONIUM

WCA* / AMS Replacement			
Choice Trio	Loveland	\$29.00 gal	0.5% v/v
Citron	Farm Direct	\$3.50 lb	2.2 lb/100 gal
Class Act Ridion	Winfield	\$ -	0.5 to 2% v/v
Cut-Rate	Wilbur-Ellis	\$2.75 lb	3 to 4 lb/100 gal
Quest/Request	Helena	\$22.00 gal	0.5% v/v
Speedway	United Suppl.	\$38.00 gal	0.5% v/v

WCA* & Surfactant			
Best Shot	CHS	\$ -	0.25 to 0.5% v/v
Fastrack	United Suppl.	\$28.00 gal	0.75% v/v
Flame	Loveland	\$42.00 gal	0.5% v/v
Jackhammer Elite	West Central	\$27.00 gal	2 qt/100 gal
Last Chance	West Central	\$ -	0.25 to 0.5% v/v
Transport Ultra	Precision	\$39.00 gal	0.25 to 0.75% v/v
Wheelhouse Pro	Labs	\$27.00 gal	2 qt/100 gal
	CHS		

WCA* & HSMOC			
Zaar	Helena	\$37.00 gal	1% v/v

WCA* & Surfactant & Deposition/Retention & Defoamer			
Strike Force	Loveland	\$65.00 gal	2 qt/100 gal
Trapline Pro	CHS	\$62.00 gal	2 qt/100 gal
Trapline Pro II	CHSI	\$51.00 gal	2 qt/100 gal
Veracity Elite	West Central	\$62.00 gal	2 qt/100 gal
Veracity Elite II	West Central	\$51.00 gal	2 qt/100 gal
Weather-Gard	Loveland	\$65.00 gal	2 qt/100 gal
Complete Leci-Tec			

WCA* & Deposition/Retention & Defoamer			
AccuQuest WM	Helena	\$36.00 gal	1 to 3 qt/100 gal
Formula 1	United Suppl.	\$30.00 gal	1 to 3 qt/100 gal

*Non ammonium / non-AMS water conditioning agent

UTILITY ADJUVANTS

Deposition/Retention - Drift Retardants			
Affect GC	United Suppl.	\$40.00 qt	1 to 2 fl oz/100 gal
Border EG 250	Precision Labs	\$1.20 oz	10 oz/100 gal
Buckhorn Total	CHS	\$58.00 gal	2 to 6 fl oz/A
Cognitive 1	West Central	\$34.00 gal	2 to 4 qt/100 gal
Corral Poly	Winfield	\$25.00 qt	4 to 12 fl oz/100 gal
Crosshair	Wilbur-Ellis	\$51.00 gal	4 fl oz/A
Direct	Precision Labs	\$34.00 qt	1 to 4 oz/100 gal
In-Place	Wilbur-Ellis	\$51.00 gal	4 fl oz/pt-lb
InterLock	Winfield	\$60.00 gal	herbicide
Lox	Drexel	\$25.00 gal	4 to 6 fl oz/A
Placement	Winfield	\$45.00 gal	4 to 8 fl oz/A
Point Blank	Helena	\$42.00 qt	2 to 6 fl oz/100 gal
Sedate Max	West Central	\$58.00 gal	2 to 6 fl oz/A

Deposition/Retention & Defoamer			
Compadre Leci-Tc	Loveland	\$58.00 gal	1 pt/100 gal

Acidifying Agents			
BS-500	Drexel	\$17.00 gal	2 to 4 pt/100 gal
Complete	Winfield	\$44.00 gal	1 to 3 pt/100 gal
Denali EA	Wilbur-Ellis	\$35.00 gal	0.4 to 4 pt/100 gal
Indicate 5	United Suppl.	\$48.00 gal	2 to 4 pt/100 gal
Induce pH	Helena	\$37.00 gal	2 to 4 pt/100 gal
LI-700 Leci-Tech	Loveland	\$39.00 gal	2 to 4 pt/100 gal
New Balance	Precision Lab	\$44.00 gal	2 to 4 pt/100 gal
SuperSpread	Wilbur-Ellis	\$31.00 gal	0.5 to 2 pt/100 gal
7000	Drexel	\$24.00 gal	1 to 5 gal/100 gal
Sequestra	Wilbur-Ellis	\$36.00 gal	0.5 to 4 pt/100 gal
Tri-Fol			

Compatibility Agents			
Blendex	Helena	\$55.00 gal	1 to 5 pt/100 gal
Compatibility Agent	West Central	\$35.00 gal	1 to 3 pt/100 gal
t	Winfield	\$44.00 gal	1 to 3 pt/100 gal
Complete	Precision Labs	\$50.00 gal	1 to 6 pt/100 gal
Convert	Loveland	\$38.00 gal	1 to 4 pt/100 gal
EZ-Mix	Drexel	\$20.00 gal	1 to 4 pt/100 gal
Mix	Rosens	\$45.00 gal	1 to 4 pt/100 gal
Mix-All	United Suppl.	\$41.50 gal	1 to 2 pt/100 gal
Compatibility Plus			

Spray Tank Cleaners			
Tank Cleaner	Various	\$12-25 qt	1 to 2 qt/100 gal
Tank Cleaner	Various	\$5-7.00 lb	1 to 2 lb/100 gal

CLIMATIC DATA, 2020 CARRINGTON, ND																			
	Precipitation (inches)							April		May		June		July		August		Sept	
Date	April	May	June	July	August	Sept	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	
1	0.04	0.00	0.00	0.00	0.00	0.00	44	19	67	48	89	61	82	62	76	56	78	48	
2	0.03	0.00	0.00	0.51	0.00	0.05	19	12	66	38	83	54	91	64	74	50	83	47	
3	0.00	0.00	0.00	0.00	0.00	0.00	19	6	54	32	85	46	86	64	74	47	68	48	
4	0.00	0.59	0.00	0.00	0.00	0.00	30	3	42	37	81	52	88	67	76	51	75	46	
5	0.00	0.08	0.00	0.00	0.26	0.00	39	16	47	37	78	47	86	65	77	59	81	43	
6	0.00	0.00	0.04	0.00	0.00	0.00	49	33	63	35	75	54	82	64	77	56	72	46	
7	0.05	0.00	0.23	0.24	0.00	0.00	53	31	51	31	94	59	83	57	84	63	51	35	
8	0.00	0.00	0.01	0.61	0.00	0.00	42	28	52	23	81	63	79	61	82	58	52	29	
9	0.00	0.24	0.00	0.00	0.00	0.00	38	21	44	32	65	52	73	58	78	53	59	27	
10	0.00	0.00	0.00	0.00	0.00	0.00	53	27	46	28	75	48	79	55	79	50	73	42	
11	0.00	0.00	0.00	0.00	0.00	0.00	39	28	45	23	80	48	78	61	82	53	68	37	
12	0.00	0.00	0.00	0.00	0.00	0.00	31	21	53	23	73	50	83	56	83	63	77	51	
13	0.00	0.15	0.00	0.00	0.00	0.00	24	16	49	40	78	53	79	61	84	62	65	43	
14	0.00	0.00	0.00	0.00	0.25	0.00	27	14	55	37	82	59	78	55	70	53	72	39	
15	0.00	0.00	0.00	0.00	0.00	0.00	36	14	66	34	82	65	82	57	78	51	67	48	
16	0.00	0.00	0.00	0.00	0.00	0.00	40	18	66	39	94	61	81	61	80	53	62	45	
17	0.00	0.00	0.04	2.18	0.00	0.00	54	24	72	36	89	66	90	60	83	50	64	41	
18	0.00	0.00	0.00	0.03	0.00	0.00	54	29	73	45	69	52	75	59	88	60	72	37	
19	0.00	0.00	0.00	0.00	0.00	0.00	53	21	76	51	75	44	75	58	92	67	75	41	
20	0.00	0.00	0.10	0.19	0.01	0.00	50	28	73	54	78	55	74	54	86	65	82	58	
21	0.00	0.00	0.00	0.00	0.00	0.00	55	24	76	58	72	47	73	58	80	64	80	50	
22	0.00	0.00	0.00	0.00	0.00	0.00	66	32	81	59	71	44	74	57	88	60	86	46	
23	0.00	0.00	0.00	0.00	0.26	0.00	65	37	82	55	78	46	84	62	78	59	71	46	
24	0.01	0.12	0.00	1.21	0.00	0.00	64	38	65	53	83	51	90	67	80	56	78	43	
25	0.09	0.00	0.03	0.03	0.00	0.00	52	36	63	51	82	63	90	64	83	57	77	52	
26	0.00	0.00	0.00	0.00	0.00	0.00	67	30	76	52	84	59	79	57	78	59	75	52	
27	0.00	0.00	0.00	0.00	0.03	0.08	68	35	77	48	90	62	79	57	69	56	61	48	
28	0.21	0.00	0.00	0.00	0.08	0.00	61	48	65	47	89	68	80	55	72	50	59	46	
29	0.02	0.00	0.06	0.00	0.00	0.00	63	40	67	48	90	66	80	56	75	45	69	49	
30	0.00	0.00	0.73	0.00	0.17	0.00	73	39	66	40	81	67	83	56	74	52	58	44	
31	0.00		0.00	0.00					78	47			82	65	68	45			
Total/Avg	0.45	1.18	1.24	5.00	1.06	0.13	48°F	26	63	41	81	55	81	60	79	56	70	44	

CLIMATIC DATA, 2020 FARGO, ND																				
	Precipitation (inches)							April		May		June		July		August		Sept		
Date	April	May	June	July	August	Sept	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
1	0.20	0.00	0.00	0.41	0.00	0.00	57	34	74	50	97	66	85	68	78	62	77	56		
2	0.85	0.00	0.00	0.00	0.00	0.01	35	17	69	45	88	56	90	72	75	56	78	51		
3	0.00	0.00	0.00	0.00	0.00	0.00	19	9	52	31	83	50	90	75	75	50	68	51		
4	0.03	0.44	0.04	0.00	0.00	0.03	36	5	52	36	85	55	89	73	78	56	76	49		
5	0.00	0.55	0.00	0.00	0.00	0.00	47	31	47	42	79	53	91	70	76	59	78	49		
6	0.19	0.00	0.00	0.02	0.00	0.00	53	40	61	35	75	55	86	66	80	62	77	53		
7	0.01	0.00	0.58	0.00	0.71	0.00	50	39	51	34	99	65	87	64	79	67	53	40		
8	0.01	0.00	0.36	1.13	0.00	0.00	47	31	50	28	86	66	83	66	83	70	52	33		
9	0.00	0.20	0.75	0.00	0.61	0.00	38	27	43	35	72	56	79	63	82	58	59	32		
10	0.00	0.00	0.00	0.00	0.00	0.00	49	28	49	33	71	53	82	59	79	54	67	39		
11	0.00	0.00	0.00	0.16	0.00	0.32	40	31	47	26	79	53	80	62	83	58	64	42		
12	0.00	0.00	0.00	0.00	0.00	0.32	33	21	54	23	73	55	82	57	80	66	63	54		
13	0.00	0.20	0.00	0.00	0.00	0.00	28	16	55	44	76	57	85	67	91	68	65	49		
14	0.02	0.00	0.00	0.06	2.11	0.00	26	16	66	40	82	61	80	62	72	55	73	44		
15	0.00	0.00	0.00	0.00	0.00	0.00	36	18	66	36	91	72	84	63	81	53	69	55		
16	0.00	0.00	0.00	0.48	0.00	0.00	44	23	70	48	97	69	83	62	81	58	60	46		
17	0.00	0.00	0.00	1.02	0.00	0.00	52	27	73	45	97	74	91	61	78	53	61	46		
18	0.00	0.00	0.26	0.00	0.00	0.00	57	34	77	49	83	56	82	63	83	60	68	45		
19	0.00	0.00	0.00	0.00	0.05	0.00	50	24	77	53	74	52	78	61	87	65	77	51		
20	0.00	0.00	0.05	0.30	0.00	0.00	53	27	71	58	75	59	77	58	85	68	77	58		
21	0.01	0.00	0.00	0.33	0.00	0.00	45	21	74	57	71	57	73	60	85	69	82	56		
22	0.00	0.00	0.00	0.00	0.00	0.00	62	33	77	59	71	56	76	55	88	66	85	49		
23	0.16	0.00	0.07	0.00	0.10	0.00	66	43	76	59	78	54	82	61	87	61	76	56		
24	0.00	0.00	0.00	0.61	0.01	0.00	65	37	71	59	80	52	93	72	81	65	77	47		
25	0.00	0.00	0.47	0.70	0.00	0.02	64	38	73	53	91	62	87	72	85	63	78	60		
26	0.07	0.11	0.00	0.00	0.04	0.09	70	44	74	57	83	65	81	65	83	63	69	54		
27	0.00	0.00	0.00	0.00	0.00	0.04	70	42	85	56	88	63	82	62	80	57	63	51		
28	0.00	0.00	0.00	0.00	0.11	0.00	65	50	69	50	90	71	83	61	75	56	57	44		
29	0.00	0.00	0.05	0.00	0.00	0.01	64	43	66	45	83	67	80	58	75	48	70	45		
30	0.00	0.00	0.00	0.00	1.06	0.02	70	37	66	43	89	71	83	58	78	57	62	42		
31	0.00		0.03	0.00					83	50			85	64	70	51				
Total/Avg	1.55	1.5	2.63	5.25	4.8	0.86	50°F	30	65	44	83	60	84	64	80	60	69	48		

CLIMATIC DATA, 2020 GRAND FORKS, ND																			
	Precipitation (inches)						April		May		June		July		August		Sept		
Date	April	May	June	July	August	Sept	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	
1	0.03	0.12	0.00	1.05	0.00	0.00	52	33	62	49	95	66	82	67	78	59	77	47	
2	0.00	0.00	0.00	0.00	0.00	0.26	34	17	63	37	86	57	89	66	75	55	73	51	
3	0.00	0.00	0.00	0.00	0.00	0.00	20	4	50	31	85	50	90	72	76	50	67	51	
4	0.03	0.41	0.03	0.67	0.00	0.00	27	-3	51	33	83	53	87	67	76	47	75	47	
5	0.24	0.24	0.00	0.00	0.00	0.00	38	17	53	41	77	52	87	69	78	54	77	44	
6	0.00	0.00	0.07	0.01	0.00	0.00	41	34	60	37	73	48	82	66	81	55	76	49	
7	0.00	0.00	0.52	0.00	0.00	0.00	42	33	49	30	97	58	83	61	78	62	53	39	
8	0.00	0.00	0.06	0.39	0.00	0.00	42	31	50	28	86	65	84	66	83	59	52	33	
9	0.00	0.15	0.17	0.00	1.18	0.00	37	27	46	33	71	56	77	64	81	57	60	30	
10	0.00	0.00	0.00	0.00	0.00	0.00	47	28	50	33	70	52	80	61	79	55	73	39	
11	0.00	0.00	0.00	0.00	0.00	0.04	39	31	47	26	78	50	81	60	82	53	68	38	
12	0.00	0.00	0.00	0.00	0.00	0.00	31	26	52	23	70	50	83	58	82	60	71	53	
13	0.01	0.32	0.00	0.02	0.00	0.00	27	17	51	42	78	49	81	67	86	64	65	42	
14	0.00	0.01	0.00	0.00	1.30	0.00	25	12	62	40	83	59	79	60	68	53	70	36	
15	0.00	0.00	0.00	0.00	0.00	0.00	35	22	66	33	88	70	83	61	79	50	69	50	
16	0.00	0.00	0.00	0.03	0.00	0.00	40	25	70	40	97	61	82	60	80	57	58	40	
17	0.00	0.00	0.37	0.85	0.00	0.00	51	28	74	40	97	70	89	56	79	52	60	36	
18	0.00	0.00	0.18	0.00	0.00	0.00	53	32	78	43	75	54	81	60	85	54	69	36	
19	0.00	0.00	0.00	0.00	0.11	0.00	48	28	76	48	73	51	75	59	87	65	78	44	
20	0.00	0.00	0.36	0.24	0.00	0.00	45	29	74	53	67	59	75	54	84	66	77	57	
21	0.00	0.00	0.00	0.14	0.00	0.00	39	26	73	56	69	52	69	55	85	61	81	49	
22	0.00	0.00	0.01	0.00	0.00	0.00	58	32	77	57	68	48	74	50	85	63	86	42	
23	0.06	0.00	0.01	0.00	0.00	0.00	63	39	77	55	77	52	81	58	86	58	70	52	
24	0.00	0.00	0.01	0.28	0.00	0.00	64	36	73	52	81	52	92	69	84	56	73	43	
25	0.00	0.00	0.14	0.46	0.00	0.00	60	42	73	52	76	60	87	68	84	53	80	56	
26	0.02	0.03	0.00	0.00	0.00	0.00	65	39	76	57	82	60	79	62	77	58	79	52	
27	0.00	0.00	0.00	0.00	0.00	0.01	67	41	82	53	90	59	80	60	75	53	64	51	
28	0.08	0.00	0.00	0.00	0.00	0.00	61	48	65	48	90	64	82	60	75	55	59	46	
29	0.00	0.00	0.00	0.00	0.00	0.00	61	43	64	44	88	70	80	54	77	50	71	46	
30	0.00	0.00	2.01	0.00	0.48	0.05	69	35	67	38	88	67	83	57	77	52	59	44	
31	0.00		0.01	0.00					83	42			82	61	68	49			
Total/Avg	0.47	1.28	3.94	4.15	3.07	0.36	46°F	28	64	42	81	57	82	62	80	56	70	45	

CLIMATIC DATA, 2020 HETTINGER, ND																				
	Precipitation (inches)							April		May		June		July		August		Sept		
Date	April	May	June	July	August	Sept	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
1	0.01	0.00	0.01	0.00	0.00	0.00	36	13	65	40	85	53	82	49	79	57	80	45		
2	0.00	0.00	0.12	0.03	0.00	0.00	13	7	70	36	79	50	92	59	77	43	91	45		
3	0.02	0.00	0.01	0.85	0.00	0.00	23	-6	68	33	81	41	88	57	79	52	75	43		
4	0.00	0.00	0.09	0.82	0.00	0.00	47	12	61	38	77	52	86	61	78	56	84	40		
5	0.00	0.11	0.00	0.02	0.00	0.00	53	21	60	25	78	42	84	61	83	51	84	48		
6	0.00	0.00	0.16	0.33	0.06	0.00	68	22	63	29	77	57	78	59	88	51	78	53		
7	0.00	0.23	0.01	0.00	0.00	1.14	65	27	54	30	84	54	83	55	96	60	53	37		
8	0.00	0.00	0.01	0.00	0.00	0.00	46	23	62	25	73	54	79	51	86	59	47	28		
9	0.00	0.03	0.00	0.00	0.00	0.00	38	21	47	33	65	44	78	49	80	54	60	28		
10	0.00	0.00	0.00	0.02	0.00	0.00	59	22	48	27	73	39	82	57	84	50	68	33		
11	0.00	0.00	0.00	0.00	0.60	0.00	41	25	49	18	81	44	78	50	91	50	60	39		
12	0.00	0.02	0.00	0.00	0.00	0.00	29	16	40	35	86	45	87	54	88	60	80	40		
13	0.00	0.00	0.00	0.00	0.00	0.00	25	6	59	36	90	56	80	58	87	60	66	46		
14	0.00	0.00	0.00	0.00	0.94	0.00	35	9	65	35	89	61	75	47	79	51	84	42		
15	0.00	0.00	0.00	0.00	0.00	0.00	41	15	65	35	77	51	83	51	84	49	77	48		
16	0.00	0.03	0.03	0.00	0.00	0.00	41	13	60	42	93	58	85	48	85	53	63	44		
17	0.00	0.00	0.01	0.00	0.00	0.00	57	16	68	33	78	52	94	64	92	52	69	41		
18	0.00	0.00	0.00	0.00	0.00	0.00	54	30	66	47	70	43	81	54	93	57	70	46		
19	0.00	0.00	0.00	0.00	0.00	0.00	54	17	79	50	73	39	83	45	96	66	72	46		
20	0.00	0.00	0.05	0.31	0.00	0.00	62	30	76	54	79	49	73	54	94	62	76	51		
21	0.00	0.00	0.14	0.00	0.00	0.00	73	32	78	49	75	53	81	48	89	59	80	46		
22	0.00	0.00	0.00	0.00	0.00	0.00	73	38	82	48	74	45	86	61	91	53	86	46		
23	0.04	0.00	0.00	0.00	0.00	0.00	57	34	72	52	81	38	87	67	86	56	81	49		
24	0.06	0.00	0.00	0.04	0.00	0.00	61	34	52	38	92	54	86	61	85	53	85	45		
25	0.01	0.00	0.00	0.04	0.00	0.00	62	31	65	36	84	59	88	56	95	63	74	46		
26	0.00	0.00	0.00	0.00	0.01	0.00	69	37	76	39	86	51	85	54	88	61	69	43		
27	0.03	0.00	0.00	0.00	0.24	0.00	74	29	68	44	94	58	89	52	77	61	64	41		
28	0.00	0.00	0.14	0.00	0.02	0.00	61	39	70	40	84	63	85	55	73	48	63	35		
29	0.00	0.00	0.56	0.00	0.00	0.00	67	28	70	37	95	61	80	61	84	43	78	39		
30	0.00	0.00	0.39	0.00	0.00	0.00	81	45	70	44	68	51	87	55	74	45	61	32		
31		0.05		0.00	0.00				76	49			89	55	72	40				
Total/Avg	0.17	0.47	1.73	2.46	1.87	1.14	52°F	23	65	38	81	51	84	55	85	54	73	42		

CLIMATIC DATA, 2020 HILLSBORO, ND																			
	Precipitation (inches)							April		May		June		July		August		Sept	
Date	April	May	June	July	August	Sept	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	
1	0.00	0.07	0.00	0.56	0.00	0.00	52	33	69	46	97	63	84	67	77	59	78	48	
2	0.01	0.00	0.00	0.00	0.00	0.13	33	18	64	39	89	54	91	67	75	54	75	46	
3	0.00	0.00	0.00	0.00	0.00	0.00	20	6	51	31	84	50	91	72	75	50	66	49	
4	0.19	0.45	0.00	0.00	0.00	0.03	33	2	55	35	86	55	91	70	78	48	74	45	
5	0.11	0.52	0.01	0.00	0.00	0.00	41	22	49	42	81	50	92	68	77	57	76	43	
6	0.00	0.00	0.00	0.01	0.00	0.00	47	34	61	36	75	49	84	65	81	56	75	50	
7	0.00	0.00	0.50	0.00	0.19	0.00	45	34	50	32	97	62	86	61	76	62	53	35	
8	0.00	0.00	0.17	0.41	0.00	0.00	43	32	49	30	86	66	83	65	83	61	53	32	
9	0.00	0.43	0.43	0.00	0.97	0.00	38	27	44	35	72	57	79	61	80	54	59	30	
10	0.00	0.00	0.00	0.00	0.00	0.00	47	27	48	33	71	52	82	58	79	51	69	37	
11	0.00	0.00	0.00	0.15	0.00	0.09	38	31	46	27	82	49	80	59	81	54	65	38	
12	0.00	0.00	0.00	0.00	0.00	0.08	31	23	53	24	72	51	84	57	81	60	67	50	
13	0.00	0.48	0.00	0.00	0.00	0.00	26	19	52	43	77	51	85	65	88	64	66	43	
14	0.00	0.00	0.00	0.00	4.54	0.00	25	14	64	38	82	60	80	61	71	56	71	38	
15	0.00	0.00	0.00	0.00	0.00	0.00	34	18	66	33	91	70	86	55	78	54	69	49	
16	0.00	0.00	0.00	0.00	0.00	0.00	42	21	69	39	98	61	84	60	80	58	60	38	
17	0.00	0.00	0.99	1.52	0.00	0.00	51	25	74	42	98	68	93	55	78	52	60	39	
18	0.00	0.00	0.26	0.00	0.00	0.00	55	32	78	42	77	56	81	61	83	57	68	39	
19	0.00	0.00	0.00	0.00	0.14	0.00	49	30	76	50	73	50	77	60	85	65	77	45	
20	0.00	0.00	0.45	0.17	0.00	0.00	47	29	72	52	72	58	77	56	83	64	76	59	
21	0.00	0.00	0.00	0.48	0.00	0.00	41	26	72	56	70	51	70	56	85	63	83	48	
22	0.00	0.00	0.00	0.00	0.00	0.00	57	32	76	59	71	52	75	51	87	63	84	41	
23	0.00	0.00	0.00	0.00	0.07	0.00	64	39	75	55	77	54	81	59	86	59	78	50	
24	0.00	0.00	0.00	1.11	0.01	0.00	65	35	72	55	80	52	93	70	83	61	74	48	
25	0.09	0.02	0.83	0.38	0.00	0.00	64	38	74	52	87	57	86	67	83	57	80	52	
26	0.03	0.16	0.01	0.01	0.00	0.01	67	41	75	57	82	61	79	63	79	60	73	51	
27	0.00	0.00	0.00	0.00	0.12	0.01	66	38	84	52	89	60	79	60	78	55	64	47	
28	0.03	0.00	0.00	0.00	0.04	0.00	65	47	69	44	89	66	81	58	73	52	58	42	
29	0.00	0.00	0.00	0.00	0.00	0.00	62	37	65	42	85	68	80	55	74	48	72	45	
30	0.00	0.00	0.00	0.00	0.50	0.00	71	33	67	39	87	71	83	56	78	55	63	41	
31	0.00			0.22	0.01				82	41			84	62	69	49			
Total/Avg	0.46	2.13	3.65	5.02	6.59	0.35	47°F	28	65	42	83	57	83	61	79	57	70	44	

CLIMATIC DATA, 2020 INKSTER, ND																				
	Precipitation (inches)							April		May		June		July		August		Sept		
Date	April	May	June	July	August	Sept	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
1	0.18	0.03	0.01	0.55	0.00	0.00	49	27	62	43	94	61	80	66	75	56	79	47		
2	0.00	0.00	0.00	0.00	0.00	0.25	27	17	63	36	84	60	88	62	73	53	72	50		
3	0.00	0.00	0.00	0.00	0.00	0.00	18	1	50	28	84	49	88	66	75	48	66	50		
4	0.13	0.66	0.00	0.61	0.00	0.00	24	1	43	26	81	53	86	66	76	51	73	47		
5	0.01	0.17	0.00	0.00	0.00	0.00	37	12	53	40	77	49	86	68	79	57	77	48		
6	0.00	0.00	0.15	0.00	0.00	0.00	45	30	60	34	71	45	82	61	80	58	72	46		
7	0.00	0.00	0.67	0.00	0.00	0.00	46	33	51	29	92	56	82	57	80	58	53	35		
8	0.00	0.00	0.16	0.64	0.00	0.00	42	29	51	25	82	63	81	62	82	58	52	33		
9	0.00	0.21	0.02	0.00	1.43	0.00	39	25	45	31	70	55	76	61	79	56	60	34		
10	0.00	0.00	0.00	0.00	0.00	0.00	51	25	50	30	72	51	79	59	77	55	74	43		
11	0.00	0.00	0.00	0.08	0.00	0.00	41	29	46	23	79	49	79	56	80	53	68	39		
12	0.00	0.00	0.00	0.00	0.00	0.00	31	24	52	21	67	46	82	59	82	56	75	45		
13	0.00	0.47	0.00	0.03	0.00	0.00	25	16	48	40	76	45	77	62	81	63	63	38		
14	0.00	0.01	0.00	0.00	0.80	0.00	25	11	57	36	82	58	77	56	67	51	69	32		
15	0.00	0.00	0.00	0.00	0.00	0.00	35	13	66	30	87	66	81	57	78	51	68	47		
16	0.00	0.00	0.00	0.00	0.00	0.00	41	16	70	36	94	60	80	58	77	54	59	37		
17	0.00	0.00	0.20	1.15	0.00	0.00	53	22	74	39	85	69	90	55	79	51	59	33		
18	0.00	0.00	0.00	0.00	0.00	0.00	53	29	78	42	75	49	77	62	84	57	69	32		
19	0.00	0.00	0.00	0.00	0.00	0.00	52	18	77	52	73	51	74	56	89	69	77	42		
20	0.02	0.00	1.07	0.44	0.04	0.00	43	24	73	55	73	58	73	52	85	62	76	56		
21	0.00	0.00	0.00	0.18	0.01	0.00	39	22	75	54	68	49	70	54	80	60	77	52		
22	0.00	0.00	0.00	0.00	0.00	0.00	56	29	76	59	67	48	75	49	83	60	84	47		
23	0.01	0.00	0.00	0.00	0.00	0.00	65	37	80	56	77	51	82	58	83	56	65	48		
24	0.00	0.02	0.00	1.96	0.00	0.00	64	34	72	52	79	52	92	69	83	53	71	41		
25	0.00	0.00	0.48	0.56	0.00	0.00	54	33	70	51	73	59	89	66	83	51	77	53		
26	0.00	0.00	0.00	0.00	0.00	0.00	65	29	76	56	82	61	78	58	76	56	76	51		
27	0.00	0.00	0.00	0.00	0.00	0.05	68	39	79	52	87	61	78	59	71	53	65	50		
28	0.14	0.00	0.00	0.00	0.00	0.00	56	46	64	47	89	64	79	59	74	54	60	45		
29	0.00	0.00	0.00	0.00	0.00	0.00	63	36	62	44	88	67	78	54	75	49	70	47		
30	0.00	0.00	1.67	0.00	0.31	0.00	71	33	66	34	86	66	82	56	77	54	58	43		
31	0.00		0.08	0.00					81	46			80	62	67	47				
Total/Avg	0.49	1.57	4.43	6.28	2.59	0.30	46°F	25	64	40	80	56	81	60	78	55	69	44		

CLIMATIC DATA, 2020 LANGDON, ND																			
	Precipitation (inches)							April		May		June		July		August		Sept	
Date	April	May	June	July	August	Sept	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	
1	0.10	0.01	0.00	0.12	0.00	0.00	42	21	60	47	89	62	77	64	72	53	74	39	
2	0.00	0.00	0.00	0.00	0.00	0.27	21	12	58	31	82	54	86	66	71	51	71	46	
3	0.00	0.00	0.00	0.00	0.00	0.00	14	4	48	28	82	46	87	63	74	48	64	45	
4	0.03	0.27	0.00	0.03	0.00	0.00	25	1	43	32	78	49	84	67	73	50	70	45	
5	0.01	0.10	0.00	0.00	0.00	0.00	37	17	54	37	73	48	83	66	78	57	78	40	
6	0.00	0.00	0.14	0.00	0.00	0.00	46	30	58	33	61	44	77	60	78	57	68	43	
7	0.07	0.00	0.62	0.00	0.00	0.00	43	31	46	26	87	55	81	56	81	60	50	32	
8	0.01	0.00	0.06	0.29	0.00	0.00	38	26	50	21	75	61	78	59	78	55	51	28	
9	0.00	0.06	0.00	0.08	0.47	0.00	35	20	43	29	63	52	73	59	72	54	58	32	
10	0.00	0.00	0.00	0.00	0.00	0.00	48	28	45	25	70	48	76	55	75	49	74	39	
11	0.00	0.00	0.00	0.00	0.00	0.00	39	24	43	17	77	47	77	56	78	50	68	39	
12	0.00	0.00	0.00	0.00	0.00	0.00	28	18	50	21	65	42	80	59	80	57	72	44	
13	0.00	0.09	0.00	2.07	0.00	0.01	20	9	46	36	73	47	73	58	75	61	60	40	
14	0.01	0.16	0.00	0.00	0.35	0.00	24	9	51	37	81	58	72	55	63	50	65	37	
15	0.00	0.00	0.00	0.00	0.00	0.00	33	15	66	33	83	59	77	53	74	50	66	46	
16	0.00	0.00	0.00	0.00	0.00	0.00	36	19	69	37	92	55	75	59	74	50	56	36	
17	0.00	0.00	0.16	0.90	0.00	0.00	49	22	73	41	81	65	83	56	77	47	53	35	
18	0.00	0.00	0.00	0.00	0.00	0.00	48	26	74	48	70	53	71	60	85	55	69	40	
19	0.00	0.00	0.00	0.00	0.00	0.00	50	23	76	50	70	48	69	55	89	63	75	44	
20	0.00	0.00	0.37	0.15	0.03	0.00	41	22	72	53	73	50	70	51	84	63	75	53	
21	0.00	0.00	0.00	0.00	0.00	0.00	38	21	72	54	63	47	70	57	80	60	75	44	
22	0.00	0.00	0.00	0.00	0.00	0.00	57	28	76	57	65	49	72	52	78	59	84	40	
23	0.00	0.00	0.06	0.00	0.00	0.12	61	32	81	56	76	48	78	60	76	54	61	44	
24	0.00	0.19	0.00	0.01	0.00	0.01	62	32	69	50	79	49	86	69	83	45	72	40	
25	0.14	0.01	0.23	0.07	0.00	0.00	49	39	67	49	78	61	86	63	83	55	75	51	
26	0.00	0.00	0.00	0.00	0.00	0.00	59	37	72	52	80	58	74	54	76	56	72	50	
27	0.00	0.00	0.00	0.00	0.00	0.06	63	35	75	50	88	57	75	56	74	51	59	48	
28	0.24	0.00	0.00	0.00	0.00	0.00	55	41	57	46	88	68	76	55	72	51	56	45	
29	0.00	0.00	0.00	0.00	0.00	0.00	60	37	59	40	85	67	78	51	75	43	67	44	
30	0.00	0.00	2.32	0.00	0.11	0.03	68	35	66	33	84	63	81	55	69	50	54	39	
31	0.00		0.34	0.00					79	42			76	59	66	41			
Total/Avg	0.61	0.89	3.96	4.06	0.96	0.50	43°F	24	61	39	77	54	77	58	76	53	66	42	

CLIMATIC DATA, 2020 MINOT, ND																			
	Precipitation (inches)							April		May		June		July		August		Sept	
Date	April	May	June	July	August	Sept	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	
1	0.00	0.01	0.00	0.03	0.00	0.00	35	11	67	46	84	57	78	57	79	51	76	40	
2	0.00	0.00	0.00	0.01	0.00	0.06	15	8	66	41	80	49	86	59	76	48	82	44	
3	0.01	0.00	0.01	0.00	0.00	0.00	23	6	57	31	81	47	85	57	78	46	70	46	
4	0.01	0.20	0.00	0.00	0.00	0.00	36	11	45	38	73	41	86	65	81	52	74	44	
5	0.00	0.00	0.00	0.00	0.05	0.00	39	20	56	37	77	39	80	62	80	57	84	44	
6	0.00	0.00	0.61	0.01	0.00	0.00	54	25	66	34	73	52	80	62	84	57	69	49	
7	0.01	0.00	0.06	0.52	0.00	0.00	58	26	55	28	81	55	82	58	93	63	50	33	
8	0.00	0.13	0.00	0.05	0.00	0.00	41	26	60	25	77	56	78	57	84	47	52	28	
9	0.00	0.27	0.00	0.00	0.18	0.00	40	18	48	30	67	52	70	54	75	51	64	29	
10	0.00	0.00	0.00	0.00	0.00	0.00	55	29	45	26	71	49	77	51	82	48	77	43	
11	0.00	0.00	0.00	0.00	0.00	0.00	38	23	47	26	80	47	76	59	84	45	69	36	
12	0.00	0.03	0.00	0.00	0.00	0.00	32	18	54	24	74	48	82	54	89	57	74	44	
13	0.00	0.02	0.00	0.27	0.14	0.00	24	13	56	38	80	51	80	53	86	62	63	38	
14	0.00	0.00	0.00	0.00	0.48	0.00	30	8	55	36	84	64	77	50	73	53	70	40	
15	0.00	0.00	0.00	0.00	0.01	0.00	37	14	68	34	79	59	81	54	78	53	64	43	
16	0.00	0.00	0.00	0.00	0.00	0.00	39	19	70	42	89	54	80	52	80	53	61	38	
17	0.00	0.00	0.01	0.11	0.00	0.00	57	23	72	38	78	57	84	58	88	52	66	40	
18	0.00	0.00	0.00	0.08	0.00	0.00	51	26	73	48	62	43	73	58	93	62	75	43	
19	0.00	0.00	0.00	0.00	0.00	0.00	55	18	80	55	72	40	74	55	96	57	75	45	
20	0.00	0.00	0.00	0.04	0.00	0.01	50	27	76	55	74	47	68	53	94	66	78	53	
21	0.00	0.00	0.00	0.00	0.00	0.00	71	24	82	56	69	41	74	52	90	58	78	46	
22	0.00	0.00	0.00	0.00	0.00	0.00	70	40	82	43	68	41	81	58	89	52	87	46	
23	0.00	0.13	0.00	0.00	0.00	0.05	64	38	74	50	79	45	89	64	76	52	66	43	
24	0.00	0.41	0.16	0.00	0.00	0.00	65	29	54	50	87	58	88	65	87	47	82	37	
25	0.01	0.00	0.45	0.00	0.00	0.00	59	38	64	49	82	61	83	54	89	61	75	50	
26	0.00	0.00	0.00	0.00	0.00	0.00	70	35	74	46	82	56	78	49	82	58	71	51	
27	0.00	0.00	0.45	0.00	0.36	0.10	68	32	72	48	92	64	78	55	80	55	61	47	
28	0.03	0.00	0.00	0.00	0.01	0.00	63	42	65	42	86	65	82	51	74	48	59	45	
29	0.00	0.00	0.52	0.00	0.00	0.00	66	29	66	35	87	64	86	52	79	44	67	50	
30	0.00	0.00	1.66	0.00	0.05	0.00	77	46	68	41	70	62	91	62	65	44	56	43	
31	0.00		0.00	0.00					81	48			81	65	71	41			
Total/Avg	0.07	1.20	3.93	1.12	1.28	0.22	49°F	24	64	40	78	52	80	57	82	53	70	43	

CLIMATIC DATA, 2020 OAKES, ND																				
	Precipitation (inches)							April		May		June		July		August		Sept		
Date	April	May	June	July	August	Sept	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
1	0.00	0.00	0.00	0.06	0.00	0.00	57	25	75	53	96	65	84	64	76	60	78	54		
2	0.00	0.00	0.18	0.00	0.00	0.00	27	16	72	45	85	58	90	63	74	53	82	50		
3	0.00	0.00	0.00	0.00	0.00	0.00	21	10	57	34	84	53	89	66	76	49	69	49		
4	0.21	1.03	0.10	0.00	0.00	0.00	37	6	46	39	82	55	88	69	77	49	77	49		
5	0.00	0.26	0.00	0.98	0.02	0.00	44	20	47	41	77	54	86	67	73	58	80	46		
6	0.14	0.00	0.00	0.00	0.00	0.00	62	37	63	37	76	58	84	67	79	53	77	50		
7	0.01	0.00	2.20	0.02	0.00	0.33	58	38	54	37	93	66	85	66	86	65	54	41		
8	0.00	0.00	0.36	0.41	0.00	0.00	48	32	52	29	84	66	83	64	81	64	51	35		
9	0.00	0.12	0.96	0.00	0.07	0.00	38	27	48	34	69	57	82	61	86	56	57	31		
10	0.00	0.00	0.00	0.00	0.00	0.00	50	26	45	31	74	52	82	58	80	52	63	35		
11	0.00	0.00	0.00	0.00	0.00	0.38	43	31	48	27	80	54	77	62	82	59	60	38		
12	0.00	0.00	0.00	0.00	0.21	0.31	32	21	53	25	77	55	82	57	83	63	64	51		
13	0.00	0.03	0.00	0.00	0.00	0.00	30	20	52	43	81	56	83	65	88	68	64	44		
14	0.00	0.00	0.00	0.14	0.04	0.00	28	18	66	40	86	60	77	59	77	55	76	45		
15	0.00	0.00	0.00	0.00	0.00	0.00	37	17	68	36	87	71	81	57	82	53	73	52		
16	0.00	0.00	0.00	0.04	0.00	0.00	47	21	61	43	94	69	84	62	80	52	63	44		
17	0.00	0.00	2.62	0.81	0.00	0.00	53	22	71	40	93	69	92	58	81	53	64	41		
18	0.00	0.00	0.36	0.00	0.00	0.00	59	33	74	40	73	61	80	62	86	57	68	39		
19	0.00	0.00	0.00	0.00	0.00	0.00	52	24	72	44	73	55	78	58	87	66	75	46		
20	0.00	0.00	0.19	0.05	0.00	0.00	60	29	71	54	74	60	80	56	86	63	80	56		
21	0.00	0.00	0.00	0.00	0.00	0.00	64	22	71	55	69	54	74	60	84	64	82	52		
22	0.00	0.00	0.00	0.00	0.00	0.00	70	30	79	59	73	55	78	56	90	63	84	45		
23	0.01	0.00	0.00	0.00	0.69	0.00	67	40	78	55	75	55	85	61	91	59	77	51		
24	0.00	0.03	0.00	1.53	0.00	0.00	66	38	68	57	82	52	91	70	82	62	78	51		
25	0.07	0.00	0.00	0.13	0.00	0.00	58	41	68	56	84	60	88	69	86	66	79	50		
26	0.00	0.00	0.00	0.04	0.07	0.06	67	31	75	55	85	63	79	62	85	67	64	50		
27	0.01	0.00	0.00	0.00	0.00	0.03	69	39	85	52	87	59	84	58	77	58	59	48		
28	1.24	0.00	0.00	0.00	1.29	0.00	56	48	72	49	88	68	81	60	73	55	58	43		
29	0.01	0.00	1.51	0.00	0.00	0.00	63	43	68	46	83	65	80	57	76	50	72	47		
30	0.00	0.00	0.00	0.00	0.88	0.00	70	37	67	48	88	68	82	56	80	55	63	46		
31	0.00	0.00	0.00	0.03					80	48			89	61	71	49				
Total/Avg	1.70	1.47	8.48	4.21	3.30	1.11	51°F	28	65	44	82	60	83	62	81	58	70	46		

CLIMATIC DATA, 2020 PROSPER, ND																				
	Precipitation (inches)							April		May		June		July		August		Sept		
Date	April	May	June	July	August	Sept	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
1	0.11	0.00	0.00	0.44	0.00	0.00	53	31	73	47	98	65	84	68	77	62	78	48		
2	0.00	0.00	0.01	0.00	0.00	0.06	31	17	67	42	90	57	88	69	75	53	77	48		
3	0.00	0.00	0.00	0.00	0.00	0.00	21	-5	51	32	86	52	89	70	76	50	69	50		
4	0.18	0.53	0.00	0.00	0.00	0.00	33	-8	50	33	86	55	87	70	78	48	77	45		
5	0.21	0.50	0.01	0.09	0.00	0.00	42	20	47	42	82	50	89	66	76	54	77	44		
6	0.01	0.00	0.00	0.02	0.00	0.00	47	35	61	37	77	48	83	64	81	54	76	50		
7	0.00	0.00	0.77	0.00	0.27	0.00	48	34	51	33	97	63	86	61	80	65	53	36		
8	0.00	0.00	0.96	0.36	0.01	0.00	44	30	51	29	85	64	82	65	81	64	53	33		
9	0.00	0.22	0.47	0.00	1.27	0.00	38	26	41	34	72	57	78	61	84	56	60	28		
10	0.00	0.00	0.00	0.00	0.00	0.00	47	29	48	33	71	53	81	56	79	51	68	33		
11	0.00	0.00	0.00	0.00	0.00	0.23	39	31	47	28	80	52	80	59	82	54	64	35		
12	0.00	0.00	0.00	0.00	0.00	0.15	31	25	54	26	72	53	83	58	79	61	65	49		
13	0.00	0.29	0.00	0.00	0.00	0.00	26	18	53	43	76	52	83	64	88	67	66	40		
14	0.00	0.01	0.00	0.01	2.08	0.00	25	12	63	39	81	60	79	54	75	53	73	37		
15	0.00	0.00	0.00	0.00	0.00	0.00	34	19	66	34	89	69	84	55	81	51	69	49		
16	0.00	0.00	0.00	0.02	0.00	0.00	43	24	69	39	95	64	83	61	80	56	61	40		
17	0.00	0.00	0.09	1.37	0.00	0.00	50	26	74	41	94	73	90	56	78	54	62	42		
18	0.00	0.00	0.18	0.00	0.00	0.00	56	31	78	41	75	58	81	61	84	56	69	41		
19	0.00	0.00	0.00	0.00	0.02	0.00	49	27	78	46	74	50	77	59	86	63	78	47		
20	0.00	0.00	0.17	0.96	0.00	0.00	51	28	73	53	75	57	78	57	85	65	79	58		
21	0.00	0.00	0.00	0.26	0.00	0.00	45	26	75	54	72	53	72	57	84	62	83	51		
22	0.00	0.00	0.00	0.00	0.00	0.00	58	29	79	58	73	55	75	52	87	63	86	43		
23	0.05	0.00	0.01	0.00	0.10	0.00	65	38	77	55	77	56	81	59	86	60	78	50		
24	0.00	0.00	0.00	1.25	0.00	0.00	64	37	70	54	81	53	91	70	82	62	77	48		
25	0.00	0.00	0.37	0.05	0.00	0.00	62	37	73	53	88	59	86	70	85	58	81	54		
26	0.22	0.07	0.00	0.00	0.00	0.02	67	37	78	54	83	61	79	62	82	60	73	52		
27	0.00	0.00	0.00	0.00	0.00	0.05	68	39	87	50	88	57	80	60	79	56	64	45		
28	0.05	0.00	0.00	0.00	0.14	0.00	63	48	69	47	88	68	81	58	75	54	60	43		
29	0.00	0.00	0.07	0.00	0.00	0.00	64	40	67	43	82	66	80	56	76	50	72	45		
30	0.00	0.00	0.00	0.00	0.66	0.01	69	34	68	40	87	69	83	57	78	56	63	44		
31	0.00	0.00	0.00	0.00	0.00				83	41			85	59	71	50				
Total/Avg	0.83	1.62	3.11	4.83	4.55	0.52	48°F	27	65	42	82	58	83	61	80	57	70	44		

CLIMATIC DATA, 2020 ST. THOMAS, ND																		
	Precipitation (inches)						April		May		June		July		August		Sept	
Date	April	May	June	July	August	Sept	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
1	0.00	0.05	0.00	0.38	0.00	0.00	48	33	60	45	95	64	80	66	76	58	78	42
2	0.01	0.00	0.00	0.00	0.00	0.32	34	16	60	34	86	60	87	65	74	54	76	49
3	0.00	0.00	0.17	0.00	0.00	0.50	19	8	49	30	83	47	89	66	77	46	67	50
4	0.00	0.19	0.01	0.01	0.00	0.01	26	4	47	32	81	51	85	67	77	48	72	45
5	0.00	0.05	0.00	0.00	0.00	0.00	38	21	56	40	75	51	88	68	81	53	80	45
6	0.00	0.00	0.10	0.00	0.00	0.00	48	31	60	35	65	44	82	64	82	58	75	50
7	0.03	0.00	2.28	0.00	0.00	0.00	48	35	51	28	89	56	83	58	81	61	53	38
8	0.00	0.00	1.31	0.70	0.00	0.00	42	30	50	27	81	61	81	62	83	59	54	34
9	0.00	0.05	0.01	0.00	0.81	0.00	38	24	48	32	71	57	78	59	75	55	61	30
10	0.00	0.00	0.04	0.00	0.00	0.00	50	30	51	31	70	52	79	59	78	54	77	37
11	0.00	0.00	0.01	0.00	0.00	0.00	41	30	48	25	74	49	81	57	82	52	70	40
12	0.00	0.00	0.00	0.00	0.00	0.00	30	25	53	22	66	45	82	59	85	54	75	46
13	0.00	0.42	0.00	0.93	0.00	0.00	27	17	48	39	72	48	76	61	81	62	64	41
14	0.00	0.00	0.00	0.00	0.89	0.00	26	15	50	35	81	58	76	55	66	49	69	33
15	0.00	0.00	0.00	0.00	0.00	0.00	35	21	65	32	88	65	80	56	78	47	69	49
16	0.00	0.00	0.00	0.00	0.00	0.00	41	24	71	36	92	58	80	59	79	54	56	35
17	0.00	0.03	0.28	1.43	0.00	0.00	53	27	76	42	85	69	85	55	80	50	56	33
18	0.00	0.00	0.00	0.00	0.00	0.00	50	30	80	48	74	56	77	61	90	54	72	31
19	0.00	0.00	0.00	0.00	0.00	0.00	52	27	79	50	71	54	73	56	94	64	78	44
20	0.00	0.00	1.27	0.00	0.05	0.00	44	27	76	54	70	57	74	51	87	63	78	58
21	0.00	0.00	0.00	0.00	0.00	0.00	39	26	77	57	66	52	72	56	85	60	79	50
22	0.00	0.00	0.00	0.00	0.00	0.00	56	32	77	59	69	49	75	51	83	61	88	42
23	0.01	0.00	0.00	0.00	0.00	0.00	62	35	81	57	78	54	80	59	84	56	65	47
24	0.06	0.03	0.00	0.29	0.00	0.00	64	34	74	53	78	52	91	69	86	50	70	39
25	0.00	0.00	0.31	0.52	0.00	0.00	53	39	72	53	72	59	91	65	84	53	79	52
26	0.14	0.00	0.00	0.00	0.00	0.00	64	34	77	56	83	57	78	57	77	57	78	51
27	0.00	0.00	0.00	0.00	0.00	0.00	65	41	80	52	85	57	78	60	77	51	63	52
28	0.00	0.00	0.00	0.00	0.00	0.00	59	45	63	45	86	66	78	58	77	56	61	47
29	0.00	0.00	0.00	0.00	0.00	0.11	62	40	62	43	86	68	79	52	77	51	71	43
30	0.00	0.00	1.66	0.00	0.39	0.01	72	35	69	36	88	67	83	54	75	54	57	42
31	0.00		0.02	0.00					80	40			79	59	70	45		
Total/Avg	0.25	0.82	7.45	4.28	2.14	0.95	46°F	28	64	41	79	56	81	59	80	54	70	43

CLIMATIC DATA, 2020 TAPPEN, ND																				
	Precipitation (inches)							April		May		June		July		August		Sept		
Date	April	May	June	July	August	Sept	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
1	0.00	0.00	0.00	0.00	0.00	0.00	52	18	69	46	87	53	83	59	78	57	79	52		
2	0.00	0.00	0.01	0.00	0.00	0.01	18	11	69	39	83	51	92	68	76	46	87	48		
3	0.00	0.00	0.00	0.00	0.00	0.00	20	8	56	34	85	45	90	61	78	48	69	46		
4	0.01	1.09	0.00	0.01	0.00	0.00	32	4	41	38	80	49	87	65	80	48	74	46		
5	0.00	0.01	0.00	0.05	1.17	0.00	41	15	47	34	74	43	84	64	77	60	81	42		
6	0.00	0.00	0.06	0.00	0.00	0.00	52	31	64	32	75	52	84	64	79	54	72	51		
7	0.00	0.00	0.72	0.80	0.00	0.06	61	30	51	32	93	63	85	61	89	64	51	36		
8	0.00	0.00	0.00	0.20	0.00	0.00	45	23	56	23	81	60	81	61	82	60	50	31		
9	0.00	0.21	0.00	0.00	0.00	0.00	38	20	46	31	64	52	75	57	79	52	57	26		
10	0.00	0.00	0.00	0.00	0.00	0.00	55	25	45	27	72	49	79	52	79	47	68	38		
11	0.00	0.00	0.00	0.00	0.00	0.01	41	27	47	21	80	47	78	57	83	55	61	41		
12	0.00	0.03	0.00	0.00	0.00	0.22	32	16	51	22	75	50	85	54	85	65	73	50		
13	0.00	0.03	0.00	0.00	0.00	0.00	27	13	51	40	79	54	79	60	87	61	63	42		
14	0.00	0.00	0.00	0.00	0.25	0.00	30	9	58	33	85	59	77	55	71	55	76	41		
15	0.00	0.00	0.00	0.00	0.00	0.00	38	14	64	30	81	56	81	56	80	52	68	47		
16	0.00	0.00	0.00	0.00	0.00	0.00	41	17	62	35	92	55	82	59	81	50	60	41		
17	0.00	0.00	0.09	0.47	0.00	0.00	55	20	69	34	86	65	95	60	87	49	64	42		
18	0.00	0.00	0.00	0.00	0.00	0.00	57	27	70	44	70	51	76	58	92	63	69	39		
19	0.00	0.00	0.00	0.00	0.00	0.00	55	16	73	52	74	40	75	55	93	68	70	47		
20	0.00	0.00	0.01	0.07	0.00	0.00	56	23	70	53	80	53	76	51	88	66	80	57		
21	0.00	0.00	0.00	0.00	0.00	0.00	65	23	75	58	73	47	76	52	88	61	82	51		
22	0.00	0.00	0.00	0.00	0.00	0.00	70	30	77	58	72	45	80	58	91	59	84	48		
23	0.00	0.00	0.00	0.00	2.13	0.00	65	37	79	52	77	45	89	65	83	59	74	49		
24	0.02	0.17	0.00	0.48	0.01	0.00	64	38	61	54	86	50	95	69	80	61	78	45		
25	0.10	0.00	0.00	0.20	0.00	0.00	55	36	59	51	85	63	89	64	82	61	77	52		
26	0.00	0.00	0.00	0.00	0.00	0.00	67	29	73	49	85	58	79	55	83	61	72	51		
27	0.00	0.00	0.00	0.00	0.28	0.02	70	33	76	50	93	58	82	52	73	60	59	46		
28	0.09	0.00	0.69	0.00	0.09	0.00	61	42	69	45	91	65	81	50	70	51	59	43		
29	0.01	0.00	0.06	0.00	0.00	0.00	62	40	66	36	88	64	83	54	77	46	70	48		
30	0.00	0.00	0.80	0.00	0.04	0.00	73	44	65	38	85	63	85	53	76	51	60	41		
31	0.00	0.00	0.00	0.00	0.00				79	44				86	60	71	44			
Total/Avg	0.23	1.54	2.44	2.27	3.97	0.32	50°F	24	63	40	81	54	83	58	81	56	70	45		

CLIMATIC DATA, 2020 WAHPETON, ND																				
	Precipitation (inches)							April		May		June		July		August		Sept		
Date	April	May	June	July	August	Sept	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
1	0.16	0.00	0.11	0.54	0.00	0.00	55	35	76	50	94	63	83	65	79	62	75	52		
2	0.16	0.00	0.06	0.00	0.00	0.01	44	18	71	43	85	58	90	69	77	54	79	46		
3	0.00	0.00	0.00	0.00	0.00	0.00	20	10	55	33	83	50	90	73	76	50	69	48		
4	0.30	0.19	0.01	0.00	0.00	0.00	35	10	51	38	83	55	89	69	78	51	78	46		
5	0.00	0.41	0.02	0.62	0.00	0.00	49	31	47	41	78	50	87	64	75	56	78	45		
6	0.10	0.00	0.42	0.02	0.00	0.00	54	40	61	38	77	57	83	64	76	61	78	54		
7	0.53	0.00	0.00	0.00	0.00	0.00	53	40	54	35	97	64	86	64	85	66	55	39		
8	0.00	0.00	0.32	2.17	0.00	0.00	46	33	52	29	88	66	85	63	84	67	53	33		
9	0.00	0.18	0.60	0.09	0.06	0.00	38	29	44	35	72	56	81	62	82	60	59	28		
10	0.00	0.00	0.01	0.00	0.00	0.00	48	30	49	32	70	53	80	57	82	52	66	33		
11	0.00	0.00	0.00	0.00	0.00	0.59	40	31	49	27	77	51	77	60	81	53	62	38		
12	0.00	0.00	0.00	0.00	0.12	0.13	33	24	55	24	74	54	82	57	75	64	60	48		
13	0.00	0.02	0.00	0.00	0.70	0.00	28	21	54	43	79	56	86	65	89	65	66	46		
14	0.00	0.00	0.00	0.07	1.50	0.00	26	15	69	41	85	60	77	60	71	53	75	41		
15	0.00	0.00	0.00	0.00	0.00	0.00	35	18	68	34	93	69	83	55	81	52	73	53		
16	0.00	0.00	0.00	0.00	0.00	0.00	46	23	66	44	97	69	85	62	82	56	62	40		
17	0.00	0.00	0.01	0.92	0.00	0.00	51	24	72	48	97	73	91	55	78	53	63	41		
18	0.00	0.00	0.46	0.02	0.00	0.00	56	35	77	44	77	56	81	61	82	55	68	40		
19	0.00	0.00	0.00	0.00	0.02	0.00	49	26	77	48	72	53	79	60	85	62	76	50		
20	0.00	0.00	0.80	0.33	0.00	0.00	55	27	72	58	78	58	79	56	83	62	76	56		
21	0.00	0.00	0.00	0.25	0.00	0.00	47	24	72	56	71	54	75	59	87	66	83	50		
22	0.00	0.00	0.00	0.00	0.00	0.00	67	31	77	57	70	52	75	52	91	64	86	48		
23	0.00	0.00	0.00	0.00	0.08	0.00	65	40	76	58	75	54	82	59	87	61	84	53		
24	0.00	0.00	0.00	0.06	0.33	0.00	66	36	70	56	78	51	92	73	83	64	78	52		
25	0.00	0.00	0.00	0.62	0.00	0.00	67	34	73	52	90	58	88	72	84	65	80	56		
26	0.00	0.11	0.00	0.14	0.04	0.04	69	40	71	54	82	62	82	61	84	64	70	53		
27	0.09	0.00	0.00	0.00	0.02	0.09	72	41	85	49	90	57	85	58	79	58	63	48		
28	0.71	0.00	0.00	0.00	0.48	0.01	61	48	70	50	90	69	85	62	76	55	56	41		
29	0.00	0.00	0.16	0.00	0.00	0.00	64	42	66	44	81	66	83	55	75	49	72	42		
30	0.00	0.00	0.00	0.00	0.23	0.01	71	34	66	44	89	69	85	55	76	57	64	40		
31	0.00		0.50	0.01					82	43			84	57	72	51				
Total/Avg	2.05	0.91	2.98	6.35	3.59	0.88	50°F	30	65	43	82	59	84	61	80	58	70	45		

CLIMATIC DATA, 2020 WILLISTON, ND																			
	Precipitation (inches)							April		May		June		July		August		Sept	
Date	April	May	June	July	August	Sept	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	
1	0.00	0.00	0.00	0.01	0.00	0.00	26	9	67	46	83	54	80	54	82	56	77	45	
2	0.00	0.00	0.00	0.00	0.00	0.00	18	7	71	36	78	56	83	60	81	54	89	49	
3	0.01	0.15	0.00	0.30	0.00	0.00	30	3	64	41	79	50	88	59	84	58	72	43	
4	0.00	0.00	0.00	0.04	0.10	0.00	46	16	62	40	73	45	90	61	84	58	78	43	
5	0.00	0.00	0.00	0.01	0.00	0.00	46	20	59	32	78	43	81	59	85	53	89	53	
6	0.00	0.00	0.00	0.02	0.00	0.00	62	25	67	35	75	59	82	59	92	58	71	53	
7	0.00	0.00	0.00	0.84	0.00	0.00	59	25	59	42	80	59	85	57	91	60	53	32	
8	0.00	0.09	0.08	0.00	0.00	0.00	44	28	68	31	67	50	78	56	88	48	52	26	
9	0.00	0.02	0.00	0.00	0.00	0.00	41	15	45	32	68	46	74	54	77	55	67	30	
10	0.00	0.00	0.00	0.05	0.00	0.00	58	27	48	28	74	43	82	53	87	48	76	40	
11	0.00	0.00	0.00	0.00	0.00	0.00	37	20	52	25	83	46	77	54	94	52	76	45	
12	0.00	0.00	0.00	0.00	0.00	0.00	32	9	52	35	81	53	91	57	98	60	80	42	
13	0.00	0.02	0.00	0.03	0.00	0.00	22	6	61	38	91	58	76	52	85	65	63	41	
14	0.00	0.00	0.06	0.00	0.04	0.00	35	7	62	39	82	58	78	48	82	55	75	49	
15	0.00	0.00	0.01	0.00	0.00	0.00	39	20	71	38	77	52	84	50	87	54	65	45	
16	0.00	0.00	0.00	0.00	0.00	0.00	42	15	72	44	82	55	85	51	88	55	61	38	
17	0.00	0.00	0.00	0.00	0.00	0.00	61	19	75	44	72	52	88	62	98	58	70	42	
18	0.00	0.00	0.00	0.36	0.00	0.00	50	24	75	54	58	44	75	58	102	62	79	46	
19	0.00	0.00	0.00	0.00	0.00	0.00	58	18	83	55	73	40	75	53	101	60	75	50	
20	0.00	0.00	0.00	0.07	0.00	0.06	59	37	87	59	74	49	70	56	97	73	73	53	
21	0.00	0.00	0.00	0.00	0.00	0.00	75	38	80	49	73	47	79	51	92	65	78	49	
22	0.00	0.00	0.00	0.00	0.00	0.00	72	37	82	48	73	48	90	61	97	58	86	47	
23	0.00	0.15	0.00	0.01	0.00	0.00	65	38	62	49	85	48	98	68	84	59	70	53	
24	0.06	0.20	0.00	0.00	0.00	0.00	61	34	52	49	93	59	89	62	92	54	89	50	
25	0.00	0.00	0.00	0.13	0.00	0.00	63	30	67	49	82	59	78	56	95	71	74	52	
26	0.00	0.00	0.00	0.00	0.00	0.00	68	42	73	47	87	49	81	52	90	62	69	46	
27	0.00	0.00	0.04	0.00	0.23	0.00	71	34	70	46	97	65	82	52	87	55	64	42	
28	0.00	0.00	0.88	0.00	0.00	0.00	59	34	68	43	77	62	87	52	75	51	64	38	
29	0.00	0.00	0.00	0.00	0.00	0.00	73	31	68	42	85	61	92	65	87	50	73	48	
30	0.00	0.00	0.38	0.00	0.00	0.00	83	45	73	45	70	60	96	63	70	50	59	39	
31	0.00	0.00	0.00	0.00	0.00				86	54			86	64	74	45			
Total/Avg	0.07	0.63	1.45	1.87	0.37	0.06	52°F	24	67	42	78	52	83	57	88	57	72	44	