

SUMMARY OF 2008
WEED CONTROL EXPERIMENTS

Plant Sciences Department
North Dakota State University
Fargo, North Dakota

M. J. Christoffers
K. A. Howatt
J.M. Stachler

S. Friesen
B. M. Jenks
R. K. Zollinger

H. M. Hatterman-Valenti
R. G. Lym

Research Specialists/Technicians

C. P. Auwarter
J. D. Harrington
S. N. Pederson

K. M. Christianson
A.J. Kazmierczak
J. L. Ries

M.G. Ciernia
J. L. Luecke
R. F. Roach

P.A. Gregoire
S. F. Mark

Graduate Research Assistants

T. L. Almquist
L.K. Hanson
J. R. Loken
M. H. Ostlie

M. Ekken
R.L. Hunt
R. Luciano
S.L. Soto

S.L. Gegner
A. Kandidanda
J.R. Mikkelsen
J. Stenger

Contributors:

Greg Endres, Carrington Research Extension Center
Eric Eriksmoen, Hettinger Research Extension Center
John Lukach, Langdon Research Extension Center
Larry Smith, Northwest Experiment Station, U. of MN
Mark Bredehoeft, Southern Minnesota Beet Sugar Cooperative
Neil Riveland, Williston 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.

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Pea, Flax, Legume, Lentil, Onion, Potato, Safflower,
Sunflower, Turf, and Grape.**

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CLIMATIC DATA, 2008, Carrington ND																		
	Precipitation						April		May		June		July		August		Sept	
Date	April	May	June	July	Augus	Sept	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
1	0.00	0.00	0.00	0.00	0.00	0.86	45	19	58	42	79	48	88	59	84	51	76	55
2	0.00	0.00	0.06	0.00	0.01	0.08	51	25	52	29	66	50	68	49	80	60	56	41
3	0.00	0.00	0.25	0.00	0.13	0.00	55	21	64	19	54	47	74	45	80	57	67	38
4	0.00	0.00	0.01	0.00	0.00	0.54	59	28	68	22	72	50	80	55	78	53	54	49
5	0.00	0.00	0.29	0.00	0.00	0.07	37	24	68	29	63	50	88	60	79	53	63	42
6	0.00	0.05	1.05	0.00	0.00	0.05	36	18	69	33	61	50	83	57	80	51	68	37
7	0.00	0.00	0.00	0.65	0.00	0.00	51	14	59	31	72	50	81	59	80	49	61	36
8	0.00	0.00	0.08	0.00	0.10	0.00	54	22	58	34	71	45	73	52	74	58	61	33
9	0.00	0.00	0.22	0.15	0.00	0.00	56	23	52	36	61	49	83	51	79	61	71	37
10	0.00	0.03	0.00	0.00	0.15	0.06	52	33	51	30	63	50	79	59	71	59	64	47
11	0.00	0.00	0.98	0.00	0.77	0.00	48	27	65	25	53	47	82	57	72	59	68	49
12	0.00	0.05	0.02	0.00	0.01	0.00	50	18	59	39	64	45	71	55	81	55	76	47
13	0.00	0.01	0.02	0.00	0.00	0.18	57	15	51	30	64	49	81	54	85	49	70	49
14	0.00	0.00	0.18	0.00	0.00	0.01	66	36	68	29	77	46	90	55	78	54	60	41
15	0.00	0.00	0.02	0.00	0.00	0.00	85	45	74	33	59	45	79	51	81	51	72	42
16	0.00	0.00	0.00	0.01	0.00	0.00	59	28	82	44	72	43	83	59	85	56	76	44
17	0.00	0.00	0.00	0.00	0.00	0.00	62	24	73	36	78	45	72	55	90	61	76	43
18	0.00	0.00	0.77	0.00	0.00	0.00	67	28	67	29	80	51	81	50	82	56	85	53
19	0.00	0.00	0.00	0.03	0.00	0.00	66	31	73	37	78	50	69	62	87	56	83	44
20	0.00	0.00	0.00	0.03	0.00	0.00	62	41	63	37	75	53	79	52	83	62	69	42
21	0.24	0.00	0.00	0.00	0.00	0.64	48	29	67	27	77	51	82	54	84	65	80	50
22	0.00	0.00	0.00	0.00	0.05	0.71	57	28	69	38	80	49	82	57	73	54	74	60
23	0.14	0.00	0.03	0.07	0.00	0.68	43	25	74	47	78	54	75	64	71	45	69	45
24	0.28	0.00	0.01	0.00	0.00	0.00	39	29	69	45	83	51	81	62	77	40	66	44
25	0.00	0.01	0.00	0.00	0.00	0.00	33	26	74	42	78	58	80	53	82	52	77	45
26	0.00	0.07	1.01	0.00	0.20	0.00	48	26	57	34	83	58	84	49	84	59	65	43
27	0.00	0.00	0.00	0.00	0.12	0.00	44	24	61	29	68	54	82	59	65	47	64	35
28	0.00	0.00	0.00	0.64	0.00	0.00	51	16	70	44	73	51	80	57	72	44	62	40
29	0.00	0.21	0.00	0.00	0.00	0.00	63	32	64	56	77	51	81	54	77	45	58	36
30	0.00	0.73	0.00	0.08	0.00	0.00	61	37	69	54	82	53	82	51	89	54	71	36
31		0.00		0.20	0.00				74	50			79	55	89	72		
Total/Avg	0.66	1.16	5.00	1.86	1.54	3.88	54	26	65	36	71	50	80	55	80	54	69	43

CLIMATIC DATA, 2008, Casselton ND

Date	Precipitation						April		May		June		July		August		Sept	
	April	May	June	July	Augus	Sept	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
1	-	0.00	-	-	-	-	36	25	60	39	79	50	86	59	84	53	89	60
2	-	0.38	0.04	-	-	2.8	44	25	61	37	83	49	91	57	83	59	91	58
3	-	0.06	0.33	-	0.12	0.02	52	29	55	29	61	49	71	48	84	57	60	41
4	-	0.00	0.28	-	0.00	0.00	56	28	64	29	54	49	73	46	77	56	66	44
5	-	0.00	0.00	-	0.00	0.00	60	31	71	29	67	52	85	48	81	55	61	41
6	-	0.00	1.29	-	0.00	0.00	43	29	69	35	58	52	88	51	82	55	61	42
7	0.31	0.33	0.00	-	0.00	0.08	30	23	62	36	64	49	77	53	83	55	69	45
8	0.00	0.00	0.00	1.49	0.00	0.00	48	23	62	34	76	49	80	57	80	54	62	39
9	0.00	0.00	0.15	0.00	1.46	0.02	49	27	56	38	77	49	75	56	70	58	62	38
10	0.00	0.00	0.17	1.22	0.00	0.00	53	30	62	36	66	49	85	62	83	58	70	40
11	0.00	0.1	1.2	0.03	0.81	2.46	49	29	51	27	60	48	82	62	76	61	64	55
12	0.00	0.00	0.88	0.00	0.80	0.00	49	29	64	40	60	47	88	56	70	63	68	48
13	0.00	0.00	0.1	0.00	0.00	0.10	46	24	64	40	71	51	73	58	84	56	74	48
14	0.00	0.00	0.00	0.00	0.00	0.32	52	28	52	30	69	50	80	55	84	59	65	49
15	0.00	0.04	0.42	0.00	0.00	0.00	57	32	70	33	79	49	91	57	84	48	62	42
16	0.00	0.00	0.00	0.13	0.00	0.00	73	42	74	42	79	49	88	58	82	60	75	47
17	0.00	0.00	0.00	0.35	0.00	0.00	54	27	85	44	74	52	80	59	85	61	79	46
18	0.00	0.00	0.00	0.00	0.00	0.00	61	27	74	37	80	55	79	56	88	60	76	47
19	0.00	0.12	0.00	0.00	0.00	0.05	66	30	67	47	82	55	80	61	84	58	82	55
20	0.00	0.00	0.00	0.00	0.00	0.00	65	35	67	39	83	57	74	62	87	62	86	48
21	0.00	0.00	0.00	0.00	0.00	0.00	66	44	67	34	81	55	81	61	84	62	73	51
22	0.21	0.00	0.00	0.00	0.00	0.24	51	27	71	43	81	55	82	58	84	67	81	59
23	0.00	0.00	0.00	0.00	0.00	0.06	62	31	76	50	81	55	83	61	84	56	81	59
24	0.30	0.00	0.00	0.12	0.00	0.05	53	30	77	47	81	59	76	64	72	44	76	46
25	0.00	0.32	0.12	0.00	0.00	0.00	54	29	77	42	87	62	87	65	75	51	67	49
26	0.33	0.00	0.00	0.00	0.00	0.00	31	27	78	44	83	60	82	52	80	54	80	55
27	0.00	0.00	0.70	0.00	0.00	0.00	30	26	55	35	85	55	85	55	79	51	80	41
28	0.00	0.00	0.35	0.00	0.15	0.00	45	23	67	44	66	55	85	61	69	48	64	45
29	0.00	0.00	0.00	0.00	0.00	0.00	48	29	71	55	78	55	85	65	72	48	68	42
30	0.00	0.75	0.00	0.00	0.00	0.00	56	33	64	55	76	55	84	57	80	55	56	36
31		0.00		0.10	0.00				69	51			82	63	88	62		
Total/Avg	1.16	2.1	3.26	3.44	3.34	6.2	66	29	67	39	74	53	82	58	81	56	72	47

CLIMATIC DATA, 2008, Crookston MN																		
Date	Precipitation						April		May		June		July		August		Sept	
	April	May	June	July	Augus	Sept	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
1	0.00	0.00	0.00	0.00	0.00	0.75	40	23	58	37	81	48	89	55	80	58	89	54
2	0.00	0.00	0.00	0.00	0.00	1.53	49	25	59	25	70	51	70	43	78	63	62	43
3	0.00	0.00	0.25	0.00	0.00	0.00	53	25	60	28	58	48	74	54	81	55	63	41
4	0.00	0.00	0.00	0.00	0.00	0.30	57	29	63	22	62	52	80	60	80	51	63	47
5	0.00	0.00	0.2	0.00	0.07	0.23	42	27	62	34	64	55	86	62	80	53	60	43
6	0.00	0.04	1.33	0.00	0.00	0.00	63	25	73	33	65	51	80	56	82	50	69	45
7	0.00	0.00	0.00	0.62	0.00	0.00	47	23	58	29	77	49	71	54	81	50	63	37
8	0.00	0.00	0.00	0.00	0.00	0.00	51	26	57	39	75	52	70	48	75	53	60	40
9	0.00	0.00	0.11	0.01	0.00	0.00	52	28	57	31	66	50	82	56	84	55	68	42
10	0.00	0.10	0.00	0.07	0.00	0.40	49	27	51	26	58	47	79	60	79	60	67	56
11	0.05	0.00	0.43	0.00	1.50	0.42	42	28	63	36	57	48	87	55	71	60	70	46
12	0.00	0.05	0.23	0.00	0.50	0.00	49	21	56	39	70	53	69	56	78	52	74	51
13	0.00	0.01	0.00	0.04	0.00	0.40	53	26	53	27	69	51	76	55	84	56	63	48
14	0.00	0.00	0.18	0.00	0.00	0.11	55	44	70	41	77	50	88	52	85	56	61	40
15	0.00	0.00	0.03	0.00	0.00	0.00	65	39	73	37	60	45	87	52	83	58	75	40
16	0.02	0.00	0.00	0.05	0.00	0.00	61	22	80	39	74	46	81	60	81	60	75	42
17	0.00	0.00	0.00	0.00	0.00	0.00	60	30	70	33	80	48	74	48	91	65	73	48
18	0.00	0.00	0.00	0.00	0.00	0.00	68	33	64	41	82	50	79	53	83	55	81	55
19	0.00	0.02	0.00	0.00	0.00	0.00	64	32	55	35	83	53	70	60	87	61	82	43
20	0.00	0.00	0.00	0.00	0.00	0.00	65	28	61	32	79	52	80	56	85	68	65	45
21	0.37	0.00	0.00	0.00	0.00	0.00	51	26	67	41	80	50	81	53	85	64	80	53
22	0.00	0.00	0.00	0.00	1.27	0.02	56	30	68	40	79	52	83	61	73	52	76	64
23	0.00	0.00	0.00	0.54	0.01	0.37	50	46	73	38	81	60	76	66	70	49	69	47
24	0.26	0.00	0.00	0.00	0.00	0.00	54	30	77	55	84	64	79	53	72	43	68	47
25	0.00	0.00	0.00	0.00	0.00	0.00	34	26	80	42	83	52	82	55	80	57	75	55
26	0.3	0.00	0.25	0.00	0.00	0.01	31	26	56	31	83	59	85	59	81	52	67	43
27	0.00	0.00	0.15	0.00	0.22	0.00	45	21	65	37	75	52	85	59	70	46	64	42
28	0.00	0.00	0.45	0.00	0.03	0.00	46	21	72	52	69	55	82	62	72	52	66	40
29	0.00	0.32	0.00	0.82	0.00	0.00	55	33	71	55	79	51	82	58	80	47	53	32
30	0.02	0.15	0.00	0.00	0.00	0.00	57	43	69	44	86	61	81	61	87	73	64	34
31		0.21		0.00	0.00				77	47			84	49	89	73		
Total/Avg	1.02	0.9	3.61	2.15	3.6	4.54	52	29	65	37	74	52	80	56	80	56	69	45

CLIMATIC DATA, 2008, Fargo, ND																		
	Precipitation						April		May		June		July		August		Sept	
Date	April	May	June	July	Augus	Sept	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
1	0.00	0.00	0.00	0.00	0.00	2.47	42	26	62	44	84	52	91	62	85	53	92	67
2	0.00	0.52	0.03	0.00	0.15	0.33	52	29	55	35	63	50	70	54	85	64	67	47
3	0.00	0.00	0.67	0.00	0.02	0.00	55	32	62	30	54	50	74	47	84	67	68	42
4	0.00	0.00	0.00	0.00	0.00	0.00	60	30	69	34	67	52	82	56	83	59	61	49
5	0.00	0.00	0.78	0.00	0.00	0.00	44	31	66	29	64	53	88	66	82	58	61	48
6	0.02	0.21	0.69	0.00	0.00	0.03	34	29	78	44	70	56	87	64	82	59	69	44
7	0.00	0.00	0.00	0.31	0.00	0.14	46	25	61	36	77	57	80	64	80	53	61	43
8	0.00	0.00	0.26	0.00	0.51	0.00	49	25	56	36	75	50	74	57	73	59	64	40
9	0.00	0.00	0.13	0.06	0.00	0.00	54	30	62	38	68	49	85	57	83	62	71	42
10	0.06	0.10	0.00	0.70	0.00	0.32	48	32	48	31	62	52	82	62	80	62	65	57
11	0.04	0.00	2.16	0.00	2.53	0.89	37	30	63	26	62	49	91	62	70	61	68	54
12	0.00	0.00	0.05	0.02	0.15	0.00	47	28	63	48	71	49	75	57	84	62	74	50
13	0.00	0.00	0.00	0.00	0.00	0.10	52	25	58	35	69	52	79	58	86	57	63	54
14	0.00	0.03	0.23	0.00	0.99	0.09	55	32	70	31	79	51	91	57	83	61	62	45
15	0.00	0.02	0.00	0.00	0.00	0.00	69	40	74	49	62	48	86	59	82	60	75	44
16	0.00	0.00	0.00	0.39	0.00	0.00	59	37	83	44	73	48	81	64	86	64	78	50
17	0.00	0.00	0.00	0.00	0.00	0.00	62	28	72	42	80	50	74	59	88	65	76	46
18	0.00	0.00	0.00	0.00	0.00	0.00	65	34	65	34	84	53	81	56	84	60	82	59
19	0.00	0.01	0.00	0.00	0.00	0.01	65	31	63	45	84	56	74	65	88	61	87	58
20	0.00	0.00	0.00	0.00	0.00	0.00	67	41	63	40	81	56	82	63	84	64	73	49
21	0.23	0.00	0.00	0.00	0.00	0.00	52	34	68	32	82	54	82	61	84	66	81	56
22	0.00	0.00	0.00	0.00	0.00	0.38	62	28	74	43	81	52	83	56	79	56	79	62
23	0.01	0.00	0.00	0.08	0.00	0.13	54	32	75	52	82	54	77	65	72	51	72	53
24	0.17	0.33	0.08	0.02	0.00	0.00	57	32	75	51	88	62	87	67	75	44	68	47
25	0.00	0.00	0.00	0.00	0.00	0.00	32	29	80	59	84	63	83	60	80	57	80	53
26	0.13	0.00	0.72	0.00	0.05	0.01	40	26	61	38	85	61	85	54	80	60	73	52
27	0.00	0.00	0.19	0.00	0.13	0.00	43	24	67	32	75	57	85	66	71	55	65	40
28	0.00	0.00	0.40	0.00	0.00	0.00	45	21	71	53	68	56	84	67	73	49	68	47
29	0.00	0.71	0.00	0.05	0.00	0.00	55	31	64	57	78	57	85	64	80	56	56	37
30	0.00	0.16	0.00	0.00	0.00	0.00	60	41	69	55	85	56	81	57	88	56	70	35
31		0.09		0.03	0.00				78	51			85	65	90	68		
Total/Avg	0.66	2.18	6.38	1.67	4.52	4.90	52	30	67	41	75	54	82	60	81	59	71	49

CLIMATIC DATA, 2008, Hettinger, ND

Date	Precipitation						April		May		June		July		August		Sept	
	April	May	June	July	Augus	Sept	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
1	0.00	1.74	0.27	0.06	0.00	0.07	44	8	49	33	80	45	94	53	94	61	63	48
2	0.00	0.22	0.07	0.00	0.00	0.04	52	19	51	29	68	52	71	55	92	69	60	35
3	0.00	0.00	0.15	0.00	0.09	0.07	54	16	57	28	71	48	77	52	85	61	69	32
4	0.00	0.00	0.07	0.00	0.64	0.09	60	23	66	33	71	45	86	54	81	57	67	41
5	0.00	0.00	1.96	0.00	0.00	0.00	48	25	73	36	56	47	93	62	85	50	67	37
6	0.00	0.03	0.05	0.19	0.00	0.00	44	20	68	40	69	47	88	58	88	53	69	33
7	0.00	0.00	0.00	0.00	0.00	0.00	44	16	64	33	66	45	86	56	89	58	62	33
8	0.00	0.24	0.00	0.00	0.00	0.00	42	32	50	41	66	40	80	49	93	65	66	36
9	0.19	0.00	0.00	0.00	0.01	0.00	47	30	50	41	64	42	88	43	80	66	76	37
10	0.01	0.43	0.55	0.00	0.65	0.00	44	35	51	31	64	36	96	57	82	65	71	50
11	0.00	0.00	0.35	0.00	0.00	0.00	52	33	68	31	53	41	77	50	83	58	71	49
12	0.00	0.01	0.02	0.00	0.00	0.00	51	28	59	43	55	36	77	48	87	50	77	44
13	0.00	0.03	0.01	0.00	0.00	0.07	59	18	58	41	70	45	87	41	89	46	67	42
14	0.00	0.00	0.00	0.00	0.21	0.00	77	37	64	41	77	44	95	49	68	50	68	37
15	0.02	0.00	0.00	0.00	0.00	0.00	77	42	67	42	69	40	96	53	77	45	80	40
16	0.23	0.00	0.00	0.06	0.00	0.00	53	30	78	46	72	37	85	62	84	50	89	42
17	0.00	0.00	0.05	0.16	0.00	0.00	58	26	75	44	77	52	85	58	90	56	86	47
18	0.00	0.00	0.00	0.26	0.00	0.00	69	29	84	37	80	50	83	61	91	54	91	47
19	0.00	0.00	0.01	0.00	0.00	0.00	69	41	72	46	78	48	88	57	88	59	89	43
20	0.00	0.00	0.00	0.00	0.00	0.00	63	28	73	38	78	48	89	50	90	63	83	53
21	0.00	0.00	0.00	0.00	0.00	0.00	47	21	63	44	81	47	88	58	93	62	77	56
22	0.00	0.03	0.00	0.00	0.00	0.18	58	30	60	46	79	48	90	65	69	45	69	48
23	0.33	0.05	0.00	0.00	0.00	0.00	44	26	58	47	81	58	94	65	79	36	63	39
24	0.05	1.09	0.00	0.00	0.00	0.00	36	29	59	47	88	55	89	56	88	54	70	34
25	0.02	0.00	0.00	0.00	0.00	0.00	42	26	60	44	82	51	86	52	90	61	88	37
26	0.02	0.00	0.27	0.00	0.00	0.00	42	21	52	37	82	53	88	62	82	58	78	47
27	0.00	0.00	0.17	0.65	0.00	0.00	53	20	53	38	73	54	93	58	66	37	72	40
28	0.00	0.00	0.00	0.00	0.00	0.00	57	26	60	37	75	51	90	62	77	42	64	38
29	0.00	0.01	0.00	0.00	0.00	0.00	76	31	69	50	79	46	90	53	84	49	70	32
30	0.00	0.00	0.00	0.00	0.00	0.00	70	46	77	47	87	54	95	61	99	56	78	34
31		0.00		0.00	0.03				75	49			86	57	96	62		
Total/Avg	0.88	3.89	4.01	1.38	1.63	0.53	54	27	63	40	73	47	87	55	85	55	73	41

CLIMATIC DATA, 2008, Langdon, ND																		
	Precipitation						April		May		June		July		August		Sept	
Date	April	May	June	July	Augus	Sept	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
1	0.00	0.00	0.00	0.00	0.00	0.68	38	17	57	34	72	46	85	57	82	47	76	51
2	0.00	0.00	0.00	0.00	0.18	0.09	44	28	47	26	67	44	67	49	73	58	52	44
3	0.00	0.00	0.06	0.00	0.01	0.00	49	26	59	22	60	47	73	44	72	56	69	39
4	0.00	0.00	0.01	0.00	0.08	0.10	42	28	57	23	64	47	81	53	72	51	59	48
5	0.00	0.00	0.00	0.07	0.00	0.07	30	17	62	23	65	44	86	59	75	52	62	47
6	0.00	0.00	1.24	0.00	0.06	0.00	34	19	61	36	55	48	75	53	77	52	66	39
7	0.00	0.00	0.00	1.58	0.00	0.00	44	20	55	32	70	46	71	52	79	47	58	40
8	0.00	0.00	0.29	0.00	0.00	0.00	49	25	56	27	74	44	68	52	76	53	60	37
9	0.00	0.00	0.16	0.01	0.00	0.00	46	29	50	31	60	46	73	48	80	53	68	40
10	0.00	0.00	0.01	0.02	0.13	0.00	48	30	49	27	60	47	73	55	78	55	71	46
11	0.00	0.00	1.02	0.04	0.92	0.00	42	30	62	24	52	45	75	56	68	59	66	49
12	0.00	0.45	0.03	0.07	0.29	0.00	45	27	50	36	64	46	60	54	78	58	75	47
13	0.00	0.04	0.06	0.00	0.00	0.31	55	23	53	35	65	47	75	53	82	52	62	47
14	0.00	0.00	0.00	0.00	0.00	0.00	62	32	65	34	70	47	77	54	79	58	59	40
15	0.00	0.00	0.07	0.00	0.00	0.00	74	40	69	37	61	44	75	49	82	57	69	46
16	0.00	0.00	0.00	0.01	0.00	0.00	55	30	77	41	72	45	80	52	83	54	71	48
17	0.00	0.00	0.00	0.00	0.00	0.00	58	25	66	37	77	47	73	54	89	59	71	44
18	0.00	0.00	0.53	0.00	0.00	0.00	65	33	63	33	81	56	76	49	78	55	84	51
19	0.00	0.08	0.00	0.00	0.00	0.00	66	36	54	41	76	51	71	56	87	55	73	44
20	0.00	0.00	0.00	0.00	0.00	0.00	58	37	58	32	73	53	77	55	84	65	60	39
21	0.23	0.00	0.00	0.00	0.38	0.13	48	29	63	29	75	50	77	53	82	64	79	43
22	0.00	0.00	0.00	0.00	0.45	0.62	52	26	63	36	78	53	80	54	71	53	71	59
23	0.35	0.00	0.35	0.28	0.00	1.34	46	25	72	43	79	54	69	61	66	46	68	50
24	0.00	0.00	0.00	0.00	0.00	0.00	32	26	74	42	79	51	80	64	73	39	63	45
25	0.03	0.13	0.00	0.00	0.00	0.00	30	23	70	38	77	56	76	56	82	54	74	50
26	0.03	0.02	0.31	0.00	0.11	0.00	38	25	55	35	75	51	80	51	81	56	65	41
27	0.00	0.00	0.01	0.00	0.00	0.00	42	25	62	29	68	51	80	51	66	46	58	34
28	0.00	0.00	0.11	0.19	0.01	0.00	47	23	70	36	70	50	79	58	70	47	62	42
29	0.00	0.00	0.00	0.01	0.00	0.00	59	31	66	50	76	52	74	54	73	48	56	35
30	0.00	0.01	0.00	0.00	0.00	0.00	56	34	65	46	85	54	78	52	87	49	64	35
31		0.00		0.03	0.00				75	46			77	53	91	69		
Total/Avg	0.64	0.73	4.26	2.31	2.62	3.34	49	27	61	34	70	49	76	54	78	54	66	44

CLIMATIC DATA, 2008, Minot, ND																		
	Precipitation						April		May		June		July		August		Sept	
Date	April	May	June	July	Augus	Sept	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
1	0.00	0.00	0.00	0.00	0.12	0.35	46	20	57	39	78	52	89	62	92	54	57	48
2	0.00	0.00	0.00	0.00	0.20	0.24	50	22	53	26	68	47	70	50	79	65	55	43
3	0.00	0.00	0.51	0.00	0.46	0.00	54	19	65	23	57	47	78	48	79	58	67	40
4	0.00	0.00	0.00	0.00	0.00	0.48	54	28	69	25	69	47	83	58	79	56	55	48
5	0.00	0.00	0.00	0.00	0.00	0.02	38	17	73	32	63	52	90	61	81	55	62	42
6	0.00	0.78	0.63	0.00	0.00	0.00	44	13	56	42	65	50	83	57	80	54	65	41
7	0.00	0.00	0.02	0.00	0.00	0.00	55	15	61	42	71	50	83	57	84	53	60	40
8	0.00	0.00	0.09	0.00	0.00	0.00	56	24	63	37	72	43	77	48	87	59	64	37
9	0.04	0.47	0.07	0.00	0.00	0.00	58	23	44	32	59	49	80	50	80	61	72	45
10	0.00	0.25	0.00	0.08	0.79	0.00	51	34	53	29	60	42	86	59	82	61	63	46
11	0.00	0.08	2.30	0.00	0.98	0.00	50	29	64	33	51	45	76	55	76	57	71	50
12	0.00	0.22	0.07	0.00	0.00	0.00	52	28	54	40	60	43	72	53	82	55	78	48
13	0.00	0.00	0.07	0.00	0.00	0.53	60	21	55	38	64	47	83	49	79	54	58	47
14	0.00	0.00	0.12	0.00	0.00	0.00	77	40	66	40	74	45	81	52	74	53	65	37
15	0.00	0.00	0.00	0.01	0.00	0.00	68	43	70	41	63	44	77	56	83	55	72	47
16	0.00	0.00	0.00	0.01	0.00	0.00	56	31	80	51	74	42	86	57	86	55	76	51
17	0.00	0.00	0.00	0.00	0.00	0.00	62	29	74	49	79	52	77	52	92	61	79	50
18	0.00	0.00	0.50	0.00	0.00	0.00	71	38	74	41	81	55	82	51	84	57	85	45
19	0.00	0.00	0.29	0.00	0.00	0.00	72	44	65	47	78	55	72	60	92	58	80	52
20	0.00	0.00	0.00	0.00	0.00	0.00	64	37	65	46	76	51	83	52	92	66	69	42
21	0.02	0.00	0.00	0.00	0.29	0.10	46	24	67	40	78	50	86	52	90	62	84	44
22	0.00	0.00	0.00	0.00	0.31	0.01	55	26	68	38	79	51	90	58	65	53	78	55
23	0.14	0.00	0.00	1.04	0.00	0.07	48	19	73	44	82	54	90	65	71	46	65	47
24	0.06	0.59	0.44	0.00	0.00	0.00	33	29	60	45	80	51	81	60	81	45	65	42
25	0.06	0.13	0.00	0.00	0.00	0.00	43	26	62	37	78	55	82	58	90	58	82	50
26	0.00	0.00	0.10	0.00	0.00	0.00	46	26	56	36	77	56	84	53	83	55	61	40
27	0.00	0.00	0.09	0.00	0.00	0.00	46	24	58	30	69	53	86	59	66	43	67	34
28	0.00	0.00	0.05	1.11	0.00	0.00	55	23	68	43	76	54	82	62	75	48	66	46
29	0.00	0.00	0.00	0.00	0.00	0.00	70	37	67	50	80	55	81	55	81	46	64	38
30	0.00	0.16	0.00	0.12	0.00	0.00	66	39	73	54	85	57	86	54	97	60	74	42
31		0.00		0.00	0.00				73	52			80	56	97	56		
Total/Avg	0.32	2.68	5.37	2.37	3.15	1.81	55	28	64	39	71	50	82	56	83	55	69	45

CLIMATIC DATA, 2008, Oakes ND

Date	Precipitation						April		May		June		July		August		Sept	
	April	May	June	July	Augus	Sept	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
1	0.00	0.31	0.00	0.00	0.00	0.00	43	22	59	44	84	48	93	58	84	55	90	60
2	0.00	0.34	0.00	0.00	0.01	0.68	53	26	52	35	65	53	73	53	81	64	62	45
3	0.00	0.00	0.55	0.00	0.02	0.00	57	26	62	28	65	51	77	47	86	64	67	38
4	0.00	0.00	0.00	0.00	0.00	0.08	61	23	70	37	74	57	83	50	82	59	65	46
5	0.00	0.00	1.23	0.00	0.00	0.02	48	27	74	35	60	53	88	62	85	56	64	47
6	0.00	0.00	0.01	0.00	0.00	0.08	30	27	77	41	69	55	92	62	86	54	71	43
7	0.00	0.00	0.00	0.03	0.00	0.01	51	17	66	35	75	54	87	62	80	56	64	44
8	0.00	0.00	0.31	0.00	0.00	0.00	50	23	56	43	74	49	80	56	86	58	64	36
9	0.00	0.00	0.15	0.00	0.00	0.00	55	22	60	41	66	50	87	54	81	63	73	35
10	0.16	0.21	0.17	0.01	0.00	0.13	44	31	50	31	63	51	91	62	85	63	67	54
11	0.02	0.00	1.03	0.00	2.32	0.55	35	29	63	27	61	50	91	56	71	63	72	51
12	0.00	0.00	0.12	0.00	0.00	0.00	45	28	68	45	70	46	77	50	86	60	74	45
13	0.00	0.00	0.00	0.00	0.00	0.20	54	21	51	34	69	50	81	55	85	59	69	52
14	0.00	0.04	0.10	0.00	0.09	0.05	61	28	70	32	81	51	93	54	82	62	63	40
15	0.00	0.00	0.00	0.00	0.00	0.00	74	44	72	43	70	50	86	59	82	58	76	40
16	0.01	0.00	0.00	0.13	0.00	0.00	60	34	83	43	74	46	75	63	86	60	82	44
17	0.00	0.00	0.00	0.03	0.00	0.00	62	26	74	41	80	48	78	61	86	60	79	47
18	0.00	0.00	0.03	0.00	0.00	0.00	64	26	68	35	82	52	78	52	84	58	82	58
19	0.00	0.00	0.00	0.29	0.00	0.01	64	28	77	40	81	56	80	62	86	58	89	55
20	0.00	0.00	0.00	0.00	0.00	0.00	62	37	65	38	81	56	86	61	82	65	76	50
21	0.02	0.00	0.00	0.12	0.00	0.46	58	34	70	34	81	54	84	61	82	67	82	54
22	0.00	0.00	0.00	0.00	0.00	0.00	64	23	75	47	82	53	84	61	78	58	79	65
23	0.28	0.00	0.00	0.01	0.00	0.12	56	31	75	51	80	52	77	66	76	50	74	46
24	0.20	0.09	0.52	0.00	0.00	0.00	60	31	72	51	88	57	90	66	79	45	70	42
25	0.00	0.00	0.00	0.00	0.00	0.05	33	28	76	55	82	62	85	57	81	55	82	52
26	0.02	0.00	0.00	0.00	0.09	0.00	49	29	56	40	86	61	86	53	83	61	80	51
27	0.00	0.00	0.00	0.90	0.01	0.00	45	25	62	35	80	58	82	64	70	51	67	41
28	0.00	0.00	0.08	0.00	0.16	0.00	48	19	67	47	75	54	84	63	74	44	71	44
29	0.00	0.22	0.00	0.00	0.00	0.00	60	32	63	54	80	56	85	62	82	47	61	39
30	0.00	0.02	0.00	0.00	0.00	0.00	67	38	73	56	85	52	85	57	91	51	77	36
31		0.00		2.16	0.00				81	53			84	64	91	71		
Total/Avg	0.71	1.24	4.30	3.67	2.71	2.44	54	28	67	41	75	53	84	59	82	58	73	47

CLIMATIC DATA, 2008, Prosper, ND																		
Date	Precipitation						April		May		June		July		August		Sept	
	April	May	June	July	Augus	Sept	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
1	0.0	0.00	0.00	0.00	0.00	2.23	42	26	61	41	84	50	89	56	84	50	89	63
2	0.0	0.09	0.04	0.00	0.39	0.25	51	29	57	35	61	50	71	52	85	59	63	44
3	0.0	0.00	1.10	0.00	0.03	0.00	55	31	64	31	54	49	74	46	84	63	68	41
4	0.0	0.00	0.00	0.00	0.00	0.05	59	30	71	31	66	52	80	48	81	56	60	44
5	0.0	0.00	0.64	0.00	0.00	0.00	41	31	68	27	63	51	85	61	82	52	62	44
6	0.0	0.03	1.09	0.00	0.00	0.13	32	28	78	37	64	55	86	63	82	54	70	39
7	0.0	0.00	0.00	1.14	0.00	0.02	47	26	64	34	76	53	79	61	79	53	63	42
8	0.0	0.00	0.13	0.00	0.29	0.00	49	28	56	32	73	46	73	56	72	52	64	39
9	0.0	0.00	0.15	0.23	0.02	0.00	51	29	63	37	67	47	82	53	82	59	71	36
10	0.1	0.06	0.00	0.84	0.00	2.45	46	32	51	32	61	51	81	61	78	60	65	54
11	0.1	0.00	1.82	0.00	1.50	0.86	36	29	66	24	62	48	87	59	70	60	68	51
12	0.0	0.00	0.30	0.04	0.61	0.00	47	31	63	45	70	46	73	54	85	59	74	46
13	0.0	0.00	0.00	0.00	0.00	0.43	51	28	53	34	69	51	78	56	85	56	65	52
14	0.0	0.02	0.15	0.00	0.00	0.14	54	30	71	28	79	51	88	51	84	58	63	43
15	0.0	0.03	0.00	0.00	0.00	0.00	67	38	73	39	61	49	86	56	82	56	77	41
16	0.0	0.00	0.00	0.41	0.00	0.00	60	35	85	40	73	48	78	61	88	59	80	46
17	0.0	0.00	0.00	0.00	0.00	0.00	62	29	73	41	81	48	75	57	90	59	77	43
18	0.0	0.00	0.00	0.00	0.00	0.00	65	30	67	35	83	54	82	53	85	59	83	53
19	0.0	0.03	0.00	0.00	0.00	0.00	65	30	65	44	84	55	74	62	88	56	88	54
20	0.0	0.00	0.00	0.00	0.00	0.00	65	39	65	40	79	55	80	60	86	62	72	47
21	0.2	0.00	0.00	0.00	0.00	0.01	51	34	70	34	81	55	81	58	85	64	82	49
22	0.0	0.00	0.00	0.00	0.00	0.38	62	29	75	40	81	52	82	55	80	56	79	62
23	0.0	0.00	0.00	0.18	0.00	0.12	52	33	75	46	81	54	75	61	73	47	73	50
24	0.3	0.21	0.04	0.05	0.00	0.00	56	31	75	47	87	56	87	65	76	41	69	47
25	0.0	0.00	0.00	0.00	0.00	0.00	32	29	80	56	82	61	81	57	81	50	80	48
26	0.0	0.00	0.25	0.00	0.03	0.03	40	28	59	37	84	57	85	52	80	58	67	50
27	0.0	0.00	0.48	0.00	0.16	0.00	45	27	66	34	74	56	84	57	70	51	65	41
28	0.0	0.00	0.25	0.00	0.00	0.00	47	26	71	48	69	55	82	58	73	46	69	44
29	0.0	0.74	0.00	0.00	0.00	0.00	55	31	64	57	78	57	84	61	82	49	58	36
30	0.0	0.27	0.00	0.00	0.00	0.00	60	39	68	55	83	53	81	54	89	47	73	33
31		0.00		0.05	0.00				79	51			83	60	91	66		
Total/Avg	0.91	1.48	6.44	2.94	3.03	7.10	51	31	68	39	74	52	81	57	82	55	71	46

CLIMATIC DATA, 2008, St Thomas, ND																		
	Precipitation						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	0.00	0.00	0.88	41	24	60	38	78	48	88	59	81	51	77	56
2	0.00	0.00	0.00	0.00	0.04	0.00	49	32	51	32	71	43	72	49	75	61	58	47
3	0.00	0.00	0.08	0.00	0.05	0.00	52	31	57	30	62	48	75	45	75	56	69	40
4	0.00	0.00	0.00	0.00	1.37	0.10	43	29	52	28	64	46	82	52	77	56	59	46
5	0.00	0.00	0.05	0.00	0.00	0.02	35	23	64	26	68	44	86	56	76	55	62	51
6	0.00	0.00	1.47	0.00	0.03	0.05	36	24	65	37	60	53	74	55	78	56	69	43
7	0.00	0.00	0.00	1.64	0.00	0.00	45	27	58	33	74	50	68	52	80	51	60	46
8	0.00	0.00	0.16	0.00	0.00	0.00	50	29	57	26	77	46	69	54	75	53	61	40
9	0.00	0.00	0.76	0.00	0.00	0.00	47	27	55	33	67	52	77	52	82	51	72	39
10	0.00	0.02	0.00	0.00	0.00	0.00	49	31	52	31	63	48	78	55	79	54	70	51
11	0.00	0.00	0.91	0.05	1.07	0.00	46	33	64	25	56	47	75	60	69	59	71	51
12	0.00	0.37	0.08	0.00	0.29	0.00	47	30	55	39	69	51	65	58	77	57	79	46
13	0.00	0.02	0.02	0.00	0.00	0.00	55	29	55	38	68	50	78	58	82	52	69	53
14	0.00	0.00	0.00	0.00	0.22	0.12	61	33	69	34	76	50	80	54	78	58	64	41
15	0.00	0.00	0.02	0.00	0.00	0.00	71	39	72	37	63	46	79	51	83	55	73	45
16	0.00	0.00	0.00	0.00	0.00	0.00	58	36	80	42	76	48	78	50	87	61	75	47
17	0.00	0.00	0.00	0.00	0.00	0.00	59	31	70	42	81	50	75	55	91	59	73	42
18	0.00	0.00	0.00	0.00	0.00	0.00	66	33	64	35	81	51	77	54	81	57	86	50
19	0.00	0.05	0.00	0.00	0.00	0.00	66	34	55	45	82	49	70	54	87	51	77	49
20	0.00	0.00	0.00	0.00	0.00	0.00	62	36	62	37	78	53	79	53	86	64	64	42
21	0.12	0.00	0.00	0.00	0.31	0.02	51	32	67	34	80	55	80	53	87	66	82	43
22	0.00	0.00	0.00	0.00	0.49	1.84	56	29	67	37	82	54	82	51	74	57	73	60
23	0.07	0.00	0.00	0.26	0.00	0.80	47	31	75	45	79	50	71	60	69	49	69	54
24	0.33	0.14	0.19	0.00	0.00	0.00	39	31	79	44	83	57	84	65	72	42	65	51
25	0.00	0.07	0.07	0.00	0.00	0.00	33	27	76	43	81	59	79	60	83	49	72	48
26	0.00	0.01	0.66	0.00	0.12	0.01	38	29	57	39	78	54	84	56	82	57	62	46
27	0.00	0.00	0.05	0.00	0.00	0.00	44	29	65	33	73	54	82	54	70	51	60	40
28	0.00	0.00	0.37	0.58	0.06	0.00	50	29	72	36	72	54	78	52	74	50	62	42
29	0.00	0.01	0.00	0.01	0.00	0.00	60	31	67	50	78	59	77	59	78	48	54	38
30	0.00	0.00	0.00	0.00	0.00	0.00	60	35	69	51	87	53	79	58	86	47	63	36
31		0.00		0.01	0.00				79	46			80	58	92	67		
Total/Avg	0.52	0.69	4.89	2.55	4.06	3.85	51	30	64	37	74	51	77	55	80	55	68	46

CLIMATIC DATA, 2008, Tappen, ND																		
	Precipitation						April		May		June		July		August		Sept	
Date	April	May	June	July	Augus	Sept	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
1	0.00	0.00	0.02	0.00	0.00	0.49	46	17	55	40	83	44	90	63	87	56	80	55
2	0.00	0.00	0.24	0.00	0.00	0.13	52	24	53	26	63	50	71	49	83	64	57	43
3	0.00	0.00	0.27	0.00	0.20	0.00	55	23	62	19	61	47	74	46	82	59	67	39
4	0.00	0.00	0.00	0.00	0.12	0.46	60	22	69	28	73	52	80	54	79	57	61	50
5	0.00	0.00	0.44	0.00	0.00	0.01	42	27	71	35	60	52	88	60	80	56	64	44
6	0.00	0.03	0.93	0.00	0.00	0.23	34	19	70	35	65	50	86	58	83	52	68	40
7	0.00	0.00	0.00	0.55	0.00	0.01	53	12	62	30	74	50	82	59	82	53	60	40
8	0.00	0.00	0.29	0.00	0.00	0.00	54	17	53	39	65	47	78	51	82	63	62	36
9	0.00	0.00	0.02	0.10	0.57	0.00	54	22	56	33	61	45	84	53	79	62	71	42
10	0.00	0.02	0.31	0.53	0.00	0.00	48	33	48	30	62	50	85	59	81	59	66	51
11	0.00	0.00	1.67	0.00	0.07	0.00	46	27	64	28	59	48	81	55	75	62	67	49
12	0.00	0.04	0.05	0.00	0.00	0.00	50	21	59	42	64	43	72	53	82	56	75	46
13	0.00	0.00	0.01	0.00	0.00	0.28	57	18	50	34	69	48	78	50	87	52	71	48
14	0.00	0.03	0.05	0.00	0.00	0.01	66	35	69	34	79	45	92	57	77	55	61	44
15	0.00	0.00	0.00	0.00	0.00	0.00	85	48	71	35	64	45	84	53	84	52	72	42
16	0.01	0.00	0.00	1.52	0.00	0.00	58	31	83	45	72	41	82	59	86	57	77	47
17	0.00	0.00	0.00	0.00	0.00	0.00	60	27	75	44	78	47	77	58	90	61	77	46
18	0.00	0.00	0.12	0.00	0.00	0.00	66	37	70	33	80	55	80	56	85	58	86	57
19	0.00	0.00	0.00	0.01	0.00	0.00	65	40	75	40	80	51	79	62	89	61	86	46
20	0.00	0.00	0.00	0.01	0.00	0.00	62	42	65	36	77	52	84	58	86	66	73	45
21	0.43	0.00	0.00	0.00	0.00	0.13	52	28	68	32	78	48	83	57	86	66	79	55
22	0.00	0.00	0.00	0.00	0.01	0.93	59	25	71	43	80	48	84	61	75	55	74	60
23	0.00	0.00	1.21	0.43	0.00	0.15	50	26	73	48	78	56	81	66	74	47	69	45
24	0.11	0.04	0.57	0.00	0.00	0.00	42	30	67	49	84	54	82	66	82	45	66	41
25	0.00	0.00	0.00	0.00	0.00	0.00	34	26	69	44	79	57	79	58	83	60	78	44
26	0.00	0.00	0.17	0.00	0.55	0.00	46	26	57	35	83	60	84	53	85	59	74	46
27	0.00	0.00	0.08	0.00	0.04	0.00	45	22	60	31	71	54	83	63	66	47	64	35
28	0.00	0.00	0.04	0.00	0.01	0.00	51	17	67	44	75	50	82	63	72	48	62	41
29	0.00	0.04	0.00	0.00	0.00	0.00	64	33	67	54	79	49	82	54	81	53	62	34
30	0.00	0.01	0.00	0.00	0.00	0.00	65	37	74	53	83	55	85	54	91	55	73	39
31		0.00		0.17	0.00				79	48			80	59	91	72		
Total/Avg	0.55	0.21	6.49	3.32	1.57	2.83	54	27	65	38	73	50	82	57	82	57	70	45

CLIMATIC DATA, 2008, Wahpeton ND																		
	Precipitation						April		May		June		July		August		Sept	
Date	April	May	June	July	Augus	Sept	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
1	0.00	0.72	0.00	0.00	0.00	1.73	43	26	62	41	84	50	91	58	86	53	92	69
2	0.00	1.92	0.16	0.00	0.11	0.37	48	27	49	35	64	54	71	51	85	62	69	49
3	0.00	0.00	0.11	0.00	0.00	0.00	55	30	59	30	59	53	74	46	87	64	68	42
4	0.00	0.00	0.00	0.00	0.00	0.00	61	28	69	35	69	53	82	51	84	58	63	48
5	0.15	0.00	1.09	0.00	0.00	0.00	52	29	70	34	65	55	88	66	87	55	62	45
6	0.04	0.03	0.70	0.00	0.00	0.02	33	27	78	41	68	58	88	62	84	54	70	43
7	0.00	0.00	0.00	0.11	0.00	0.03	43	23	64	38	76	57	82	62	81	53	65	42
8	0.00	0.00	0.11	0.00	0.36	0.00	46	26	58	35	71	52	74	56	74	54	64	39
9	0.00	0.00	0.08	0.00	0.02	0.00	50	28	64	41	68	48	85	52	83	61	72	38
10	0.18	0.23	0.23	1.32	0.00	0.25	44	30	51	33	63	53	84	61	80	59	68	58
11	0.07	0.00	0.65	0.00	3.92	1.05	34	30	61	29	61	52	93	58	72	61	69	53
12	0.00	0.00	0.00	0.04	0.00	0.00	43	29	68	46	71	47	75	56	86	62	74	47
13	0.00	0.00	0.02	0.00	0.00	0.12	49	24	52	35	68	53	79	57	86	59	68	56
14	0.00	0.00	0.24	0.00	0.02	0.03	50	28	73	30	80	51	92	53	85	61	62	44
15	0.00	0.00	0.00	0.00	0.00	0.00	69	39	77	50	68	50	86	60	82	59	76	41
16	0.02	0.00	0.00	0.69	0.00	0.00	58	34	88	41	72	49	80	65	88	61	81	45
17	0.00	0.00	0.00	0.04	0.00	0.00	61	26	76	42	80	49	76	60	87	61	78	45
18	0.00	0.00	0.00	0.00	0.00	0.00	64	27	68	36	82	52	79	53	86	59	84	56
19	0.00	0.10	0.00	0.01	0.00	0.00	65	26	66	43	83	55	75	62	88	64	85	58
20	0.00	0.00	0.00	0.00	0.00	0.00	64	39	66	39	80	56	82	63	84	63	76	51
21	0.15	0.00	0.00	0.01	0.00	0.00	53	34	70	32	80	53	83	62	84	66	84	56
22	0.00	0.00	0.00	0.00	0.00	0.19	63	28	76	44	81	51	83	57	82	58	81	64
23	0.17	0.00	0.00	0.00	0.00	0.10	62	30	76	51	83	53	80	63	74	49	73	51
24	0.05	0.40	0.77	0.00	0.00	0.00	60	32	78	52	88	61	87	68	77	43	70	47
25	0.00	0.00	0.00	0.00	0.00	0.41	32	28	81	57	80	62	82	59	80	54	81	54
26	0.03	0.00	0.00	0.00	0.09	0.00	38	24	59	43	86	60	86	51	80	59	80	56
27	0.00	0.00	0.00	0.00	0.26	0.00	41	20	66	40	76	56	84	62	71	53	67	43
28	0.00	0.00	0.46	0.00	0.01	0.00	43	19	72	51	68	56	86	64	76	47	71	45
29	0.00	0.62	0.00	0.00	0.00	0.00	53	27	65	56	78	57	85	62	81	50	59	37
30	0.00	0.02	0.00	0.00	0.00	0.00	62	38	69	54	85	55	83	55	89	52	76	34
31		0.00		0.10	0.00				80	50			85	62	91	69		
Total/Avg	0.86	4.04	4.62	2.32	4.79	4.30	51	29	68	42	75	54	83	59	83	58	73	49

CLIMATIC DATA, 2008, Williston, ND																		
	Precipitation						April		May		June		July		August		Sept	
Date	April	May	June	July	Augus	Sept	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
1	0.00	0.03	0.00	0.00	0.00	0.30	42	17	54	40	79	56	90	59	100	58	53	46
2	0.00	0.00	0.00	0.00	0.10	0.35	48	22	55	27	63	50	75	54	90	67	59	45
3	0.00	0.00	0.05	0.00	0.48	0.10	53	22	63	26	71	48	84	56	81	60	68	38
4	0.00	0.00	0.00	0.00	0.02	0.04	54	29	69	38	69	45	94	60	79	59	57	44
5	0.00	0.00	0.00	0.00	0.00	0.09	39	22	73	42	64	48	90	65	84	51	66	40
6	0.00	0.00	0.00	0.03	0.00	0.18	48	16	63	49	72	49	90	58	84	58	60	42
7	0.00	0.00	0.00	0.00	0.00	0.00	59	23	65	45	71	46	79	56	89	57	59	41
8	0.00	0.00	0.34	0.00	0.00	0.00	56	26	64	35	60	43	79	52	88	67	67	42
9	0.07	0.66	0.01	0.01	0.00	0.00	59	29	49	34	63	49	89	55	84	63	76	48
10	0.06	0.00	0.00	0.00	0.12	0.00	47	38	54	32	60	45	94	62	89	63	69	48
11	0.06	0.04	1.00	0.00	0.00	0.00	52	35	69	35	53	43	72	59	81	57	71	47
12	0.00	0.03	0.08	0.00	0.00	0.00	51	30	58	43	56	39	76	52	82	55	79	46
13	0.00	0.00	0.00	0.00	0.00	0.37	63	28	61	39	69	48	87	49	82	52	60	44
14	0.00	0.00	0.18	0.00	0.40	0.00	81	42	70	46	75	49	86	54	67	54	67	35
15	0.00	0.00	0.00	0.00	0.00	0.00	63	41	73	43	64	45	82	62	82	53	77	47
16	0.00	0.00	0.00	0.00	0.00	0.00	52	33	79	54	77	44	82	63	88	55	79	49
17	0.00	0.00	0.00	0.00	0.00	0.00	62	30	77	51	83	54	81	58	93	63	84	51
18	0.00	0.00	0.01	0.03	0.00	0.00	71	40	85	46	83	60	87	54	89	64	86	52
19	0.00	0.00	0.00	0.02	0.00	0.00	75	38	71	49	81	53	82	56	97	64	86	48
20	0.00	0.00	0.00	0.00	0.00	0.00	59	28	69	39	80	51	87	54	97	62	76	47
21	0.00	0.00	0.00	0.00	0.05	0.38	46	18	66	47	81	53	89	56	86	62	78	58
22	0.00	0.00	0.00	0.00	0.13	0.02	52	25	69	46	84	53	97	68	63	49	73	50
23	0.00	0.00	0.00	0.00	0.00	0.03	47	16	75	46	80	59	89	67	76	43	57	46
24	0.01	0.41	0.14	0.00	0.00	0.00	34	29	64	48	79	59	80	57	86	52	67	39
25	0.00	0.21	0.00	0.00	0.00	0.00	51	27	55	39	85	51	84	52	97	61	82	46
26	0.00	0.00	0.32	0.00	0.00	0.00	38	25	58	37	78	58	90	60	79	50	63	46
27	0.00	0.00	0.00	0.00	0.00	0.00	54	19	60	35	70	54	89	67	69	43	73	42
28	0.00	0.00	0.00	0.66	0.00	0.00	64	27	69	38	77	54	88	59	76	46	66	45
29	0.00	0.00	0.00	0.00	0.00	0.00	78	37	70	48	83	50	86	56	82	49	69	33
30	0.00	0.00	0.00	0.03	0.00	0.00	67	47	77	47	93	57	94	61	97	60	77	43
31		0.00		0.00	0.00				76	50			82	58	79	53		
Total/Avg	0.20	1.38	2.13	0.78	1.30	1.86	55	29	67	42	73	50	86	58	84	57	70	45

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	1.6	6.7			
Buffalo, ND (Zollinger, Soybean)	Loam	3.6	7.5			
Buffalo, ND (Zollinger, Liberty Link Soybean)	Loam	3.5	6.7			
Cavalier, ND	Silty Clay Loam	6.2	6.4	91	35	780
Casselton, ND	Silty clay	4.0	7.9	Fertilized by test		
Casselton, ND (Zollinger)	Silty clay loam	5.4	7.8			
Crookston, MN	Silty clay loam	4.1	7.8	192	15	280
Dawson, MN	Sandy loam	7.7	2.6			
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			
Hillsboro, ND	Loam	4.1	7.7	132	7	210
Hawley, MN	Loam	2.2	8.5	3	4	105
Hettinger, ND	Silty loam	2.9	6.7	Fertilized by test		
Jamestown, ND (Pipestream Dam)	Loam	6.8	6.8	28	5	290
Kindred, ND	Loam	4.6	7.8			
Mapleton, ND	Silty clay loam	7.6-7.7	4.4-4.9			
Mayville, ND (Stachler / Zollinger)	Loam	2.3	6.8	24	11	70
Mayville, ND (Zollinger)	Sandy loam	3.1	7.2			
Minot, ND	Loam	2.7	7.0	Fertilized by test		
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 (Stachler)	Clay loam	4.4	6.9	109	40	225
Prosper, ND (Zollinger)	Silt loam	4.2-4.4	5.9-7.5			
St. Thomas, ND	Silty loam	5.4	7.9	112	18	230
Tappen, ND	Sandy loam	1.8	7.6			
Thompson, ND (Zollinger)	Silt loam	3.9	7.9			
Valley City, ND	Fine loam	8.2	6.7	11	15	640
Valley City, ND (wheat)	Sandy loam	7.3	6.1			
Valley City, ND (Zollinger, sunflower)	Loam	5.1	7.2			
Walcott, ND	Loamy sand	2.6	6.7			
Williston, ND	Loam	2.3	6.8	Fertilized by test		
Wynmere, ND	Loamy sand	1.9	5.7	Fertilized by test		

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	Mlgr = Mapleleaf goosefoot
Amar = Amaranth	Nabe = Navy bean
Barl, Bar = Barley	Nfcf = Nightflowering catchfly
Bdlf = Broadleaf	Oats = Tame oats
Biww = Biennial wormwood	Pagf = Pale goosefoot
Bubu = Buffalobur	Pest = Perennial sowthistle
Bygr = Barnyardgrass	Pesw = Pennsylvania smartweed
Cath = Canada thistle	Pibe = Pinto bean
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 (chenopodium quinoa)
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 = Sheperdspurge
Fach = False chamomile	Smwe = Annual smartweed
Fibw = Field bindweed	Soyb, Sobe = Soybean
Fipc = Field pennycress	Spss = Spotted spurge (prostrate spurge)
Fisb = Field sandbur	Sugb, Sgbr = 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	Wht = Volunteer wheat
KOCZ = Kochia	Wibw = Wild buckwheat
Lath = Ladysthumb	Wigr = witchgrass
Lent = Lentils	Wimu = Wild mustard
Llsa = Lanceleaf sage	Wioa = Wild oat
Mael = marshelder	Wipm = Wild-proso millet
Mesa = Meadow salsify	Yeft = Yellow foxtail

METHODS

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

FORMULATION

ACS = Aqueous capsule suspension	WBF = Water-based flowable
DF = Dry Flowable	WP = Wettable powder
E, EC = Emulsifiable concentrate	WG, WDG = Water dispersible granules
FL, F = Flowable	WSP, SP = Water Soluble powder
L = Liquid flowable	G = Granules or gallon/A
ME = Micro-encapsulated	S = Solution
	SG = Soluble granules

MISCELLANEOUS

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

Herbicide Spray Adjuvants

Surfactants				Basic pH Blend			
Activate Plus	Winfield	\$19.50 gal	0.25 to 0.5% v/v	Linkage	West Central	\$16.50 gal	1% v/v
Activator 90	Loveland	\$17.00 gal	0.25 to 0.5% v/v	Mycrimix Plus	J.R. Simplot	\$18.00 gal	1% v/v
APSA-80	Amway	\$26.00 gal	0.25 to 0.5% v/v	Quad 7	Loveland	\$17.00 gal	1% v/v
ChemSurf 90	Unit. Suppliers	\$20.00 gal	0.25 to 0.5% v/v	Transactive	Helena	\$15.75 gal	1% v/v
Cmbit Premier 90	West Central	\$19.00 gal	0.25 to 0.5% v/v	Petroleum Oil Concentrates			
Liberate LechiTech	Loveland	\$26.50 gal	0.25 to 0.5% v/v	Agri-Dex	Helena	\$7.00 gal	2 to 4 pt/A
Nutryx	Precision Labs	\$79.95 gal	0.25% v/v	Exchange	Precision Labs	\$12.50 gal	2 to 4 pt/A
Pen-A-trate II	Precision Labs	\$19.25 gal	0.25 to 0.5% v/v	Herbimax	Loveland	\$8.50 gal	2 to 4 pt/A
Preference	Winfield	\$19.50 gal	0.25 to 0.5% v/v	Ortech	Rosens	\$7.00 gal	2 to 4 pt/A
Purity 100	Rosens	\$21.00 gal	0.25 to 0.5% v/v	Premium Crop Oil	Unit. Suppliers	\$7.00 gal	2 to 4 pt/A
R-11	Wilbur-Ellis	\$19.00 gal	0.25 to 0.5% v/v	Premium COC	West Central	\$7.00 gal	2 to 4 pt/A
Tradition 93	Rosens	\$19.00 gal	0.25 to 0.5% v/v	Prime Oil	Winfield	\$7.50 gal	2 to 4 pt/A
Translate	Unit. Suppliers	\$24.95 gal	0.25 to 0.5% v/v	ROC Crop Oil	Wilbur-Ellis	\$8.00 gal	2 to 4 pt/A
Wet-Sol 99	Schaeffers	\$24.75 gal	0.25 to 0.5% v/v	R-Way	Rosens	\$7.00 gal	2 to 4 pt/A
				Vigor	Precision Labs	\$7.25 gal	2 to 4 pt/A

NIS Approved for use in Water

Surfactants approved for use in bodies of water are:

Activate Plus	AgriDex	Class Act NG	
Induce	Liberate L-Tech	LI-700 Lechi-Tech	
Preference	R-11	Widespread	X-77

Surfactants & Silicone

Kinetic	Helena	\$95.00 gal	0.75 to 2 pt/100 gal
Silkin	Winfield	\$95.50 gal	0.75 to 2 pt/100 gal
Silwet L-77	Loveland	\$41.50 qt	0.38 to 1 pt/100 gal
Speed	Precision Labs	\$90.95 gal	0.25 to 2 pt/100 gal
Sur-Plus	Unit. Suppliers	\$80.00 gal	0.5 to 2 pt/100 gal
Sylgard 309	Wilbur-Ellis	\$90.00 gal	0.75 to 2 pt/100 gal

Surfactants & Fertilizer

AMSurf	Unit. Suppliers	\$0.75 lb	20 lb/100 gal
Bronc PlusDryEDT	Wilbur-Ellis	\$0.50 lb	10 lb/100 gal
Class Act NG	Winfield	\$7.25 gal	2.5% v/v
Deliver	Precision Labs	\$8.40 gal	2.5% v/v
Impressive DB	Rosens	\$0.70 lb	2.25 lb/A
Powerhouse	Rosens	\$6.70 gal	5 to 10 qt/100 gal
Solis	Precision Labs	\$0.56 lb	20 to 22 lb/100 gal
Surfate	Loveland	\$16.00 gal	1% v/v
Ultra Surf AMS	Unit. Suppliers	\$6.90 gal	2.5% v/v

Surfactants & Water Conditioning Agents

Bronc Total	Wilbur-Ellis	\$21.20 gal	0.75% v/v
Enact	Rosens	\$18.00 gal	0.25 to 0.5% v/v
Fastrack	Unit. Suppliers	\$17.25 gal	0.75% v/v
Flame	Loveland	\$33.00 gal	0.25 to 0.5% v/v
N-Tense	West Central	\$24.00 gal	0.25 to 0.75% v/v

AMS Replacements / Water Conditioning Agents

Alliance	Winfield	\$9.00 gal	1.25% v/v
Bronc Max	Wilbur-Ellis	\$17.95 gal	0.5% v/v
Choice W-master	Loveland	\$17.50 gal	0.5% v/v
Citron	Farm Direct	\$2.25 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	Unit. Suppliers	\$17.25 gal	0.5% v/v
Transport	Precision Labs	\$19.50 gal	0.5% v/v

Oil Based Surfactants

Trophy Gold	West Central	\$28.00 gal	1 qt/100 gal
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High Surfactant Oil Concentrates

Between (PO)	Unit. Suppliers	\$ - gal	1 to 2 pt/A
Diplomat	Rosens	\$11.50 gal	3 to 4 pt/100
Superb HC (PO)	Winfield	\$12.00 gal	1 to 2 pt/A
Destiny HC (MSO)	Winfield	\$ - gal	0.75 to 2 pt/A

Methylated Seed Oils (MSO)

Adigor	Syngenta	w/Axial	9.6 fl oz/A
Destiny	Winfield	\$15.00 gal	1 to 2 pt/A
MSO Lechi-Tech	Loveland	\$15.00 gal	1 to 2 pt/A
Persist Ultra	J.R. Simplot	\$18.00 gal	1 to 2 pt/A
Scoil	AGSCO	\$16.00 gal	1 to 2 pt/A
Soy-Stik	West Central	\$16.00 gal	1 to 2 pt/A
Succeed	United Suppl.	\$16.00 gal	1 to 2 pt/A
Sundance II	Rosens	\$16.00 gal	1 to 2 pt/A
Superspread MSO	Wilbur-Ellis	\$15.00 gal	1 to 2 pt/A

MSO Basic pH Blend

Base	West Central	\$17.00 gal	1 to 2 pt/A
Entro	Winfield	\$17.00 gal	1 to 2 pt/A
Renegade	Wilbur-Ellis	\$19.00 gal	1 to 2 pt/A
Z-64	AGSCO	\$17.00 gal	1 to 2 pt/A

MSO & Water Conditioning Agent

SuperCharge	Syngenta	w/Achieve	0.5% v/v
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MSO & Organosilicone Surfactant

Air Force	Unit. Suppliers	\$33.00 gal	4 to 6 fl oz/A
Dyne-Amic	Helena	\$43.00 gal	4 to 6 fl oz/A
Rivet	Winfield	\$44.00 gal	4 to 6 fl oz/A
Syl-tac	Wilbur-Ellis	\$49.50 gal	4 to 6 fl oz/A

Fertilizer

AMS (Dry)	Various	\$0.25 lb	2 to 4 lb/A
AMS (liquid)	Various	\$3.50 gal	2 to 4 qt/A
28% UAN	Various	\$3.50 gal	2 to 4 qt/A
28% UAN (bulk)	Various	\$3.50 gal	2 to 4 qt/A

AMS & Drift Retardant

AMS 20/10	Unit. Suppliers	\$0.90 lb	10 lb/100 gal
Corral AMS Dry	Winfield	\$1.50 lb	10 to 17 lb/100 gal

AMS & Defoamer

Am-Stik	West Central	\$4.00 gal	2 to 4 qt/100 gal
Omnix LDF	Precision Labs	\$4.60 gal	2.5 to 5% v/v

AMS & Deposition & Water Conditioner			
onc Max EDT	Wilbur-Ellis	\$28.25 gal	2 to 4 qt/100 gal

AMS & Deposition & Defoamer			
MS 2000	Unit. Suppliers	\$0.75 lb	10 to 17 lb/100 gal
nSol Plus	Unit. Suppliers	\$5.00 gal	2.5 gal/100 gal
row Four	Winfield	\$16.50 gal	2 to 4 qt/100 gal
ombelt Dri-Gard	West Central	\$1.25 lb	9 lb/100 gal
nbt Gardian Plus	West Central	\$5.50 gal	2.5 gal/100 gal
uble Down	Unit. Suppliers	\$6.00 gal	2.5 gal/100 gal
ift Guard	Rosens	\$1.32 lb	9 lb/100 gal

AMS & Deposition & Retention & Defoamer			
ray	Rosens	\$1.60 lb	9 to 14 lbs/100 gal
order Xtra DF	Precision Labs	\$1.10 lb	18 lb/100 gal
order Xtra 4L	Precision Labs	\$4.70 gal	5% v/v
order Xtra 8L	Precision Labs	\$7.25 gal	2.5% v/v

AMS & Surfactant & Deposition & Retention & Defoamer			
re-Ap XL	West Central	\$1.50 lb	9 to 15 lbs/100 gal
ry Off Plus	Unit. Suppliers	\$1.10 lb	10 to 13 lb/100 gal
nith	Rosens	\$1.25 lb	1.5 to 2.25 lbs/A

Water Conditioning & Deposition & Defoamer			
ombelt Gardian	West Central	\$22.00 gal	1 to 3 qt/100 gal
rmula 1	Unit. Suppliers	\$22.00 gal	1 to 3 qt/100 gal
ansport Plus	Precision Labs	\$21.90 gal	1 to 3 qt/A

Water Conditioning & Deposition & Defoamer & Surfactant			
weather-Gard	Loveland	\$30.00 gal	1 to 2 qt/100 gal
omplete			

Deposition - Drift Retardants			
Affect GC	Unit. Suppliers	\$24.00 qt	1 to 2 fl oz/100 gal
Border EG 250	Precision Labs	8.80/10 oz	10 oz/100 gal
Corral Poly	Winfield	\$25.00 qt	4 to 12 fl oz/100 gal
Direct	Precision Labs	\$19.25 qt	1 to 4 oz/100 gal
Drift Down	Rosens	\$13.00 qt	4 to 8 fl oz/100 gal
In-Place	Wilbur-Ellis	\$32.00 gal	4 fl oz/pt-lb herbicide
InterLock	Winfield	\$42.00 gal	4 to 6 fl oz/A
Placement	Winfield	\$36.00 gal	4 fl oz/pt-lb herbicide
Shroud II	Unit. Suppliers	\$9.00 qt	10 to 12 oz/100 gal
Syndetic	West Central	\$13.00 qt	2 to 8 oz/100 gal

Deposition & Drift Retardant & Surfactant			
Powerlock	Winfield	\$36.00 gal	5 to 8 oz/AI

Drift Retardant & Defoamer			
Compadre	Loveland	\$45.00 gal	1 pt/100 gal
Sedate	West Central	\$45.00 gal	1 pt/100 gal

Acidifying Agents			
Complete	Winfield	\$35.00 gal	1 to 3 pt/100 gal
Indicate 5	Unit. Supplier	\$28.00 gal	2 to 4 pt/100 gal
LI-700 Lechi-Tech	Loveland	\$24.00 gal	2 to 4 pt/100 gal
New Balance	Precision Lab	\$28.00 gal	2 to 4 pt/100 gal

Compatibility Agents			
CompatibilityAgent	West Central	\$30.00 gal	1 to 3 pt/100 gal
Complete	Winfield	\$35.00 gal	1 to 3 pt/100 gal
Convert	Precision Labs	\$31.50 gal	1 to 6 pt/100 gal
Embrace	Wilbur-Ellis	\$32.00 gal	1 to 4 pt/100 gal
EZ-Mix	Loveland	\$30.00 gal	1 to 4 pt/100 gal
Mix-All	Rosens	\$33.00 gal	1 to 4 pt/100 gal
U.S. Compat. Plus	Unit. Suppliers	\$30.00 gal	1 to 2 pt/100 gal

Spray Tank Cleaners			
Tank Cleaner	Various	\$22-35 gal	1 to 2 qt/100 gal
Tank Cleaner	Various	\$5-7.00 lb	to 2 lb/100 gal

LIST OF HERBICIDES TESTED IN 2008				
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
Acifluorfen	Acif	BASF	2 E, S	Ultra Blazer
Ambicarbazon		Bayer	70 DF	
Aminocyclopyrachlor	DPX KJM44	Dupont	60 DF	
Aminopyralid + 2, 4-D	GF-1004 GF-750	Dow	0.33 + 2.67	Forefront
Aminopyralid	DE750	Dow	2SL	Milestone
Atrazine	Atra	Various	90 DF	Several
Bentazon	Bent, Bsgn	BASF	4 I S	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 + Flur	Dow		Starane NXT
Bromoxynil & Pyrasulfotole	Pyst	Bayer		Huskie
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
Chlorsulfuron		DuPont	75 WG	Telar / Glean
Clethodim	Clet	Valent Valent Agasco 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 + Flur	Dow/UAP		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, Several
Dicamba + diflufenzopyr + isoxadifin safener	BAS799	BASF	40 + 16 WDG	Status

Diflufenzopyr + Dicamba	Difl + Dica	BASF	50+ 20 WDG	Distinct, Overdrive
Difenzoquat	Dife	AMVAC	2 S	Avenge
Diflufenzopyr	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
Fenoxaprop-P	Fenx-P	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
Fluroxypyr	Flox	Dow	1.5 EC	Starane
Fluroxypyr + 2, 4-Dioe		Dow	0.75 + 3 lb/gal EC	Starane + Salvo
Fluroxypyr + MCPAioe		Dow	0.71 + 2.84 EC	Starane + Sword
Fluroxypyr + 2, 4-Ddma		Dow	0.5 + 2 EC	Starane, Saber
Fluroxypyr + 2, 4-De		Dow	3.75 EC	Starane + Esteron
Fluroxypyr + MCPAe		Dow	3.55 EC	Starane + MCPA
Florasulam		Syngenta		
Florasulam + MCPA		Syngenta	2.373L	Orion
Florasulam + Pyroxsulam + Fluroxypyr	GF-1848	Dow	0.838L	Goldsky
Fluthiacet-methyl		FMC	0.91 EC	Cadet
Fomesafen		Syngenta	2 EC	Reflex
Fomesafen + Adjuvant		Syngenta	1.88 EC	Flexstar
Foramsulfuron + Safener		Bayer	70 WDG	Option
Fosamine		DuPont	4 S	Krenite
Glufosinate	Gluf, Lbrty	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	Monsanto	75 DF	Permit / Sandea
Imazamethabenz	Immb	BASF	2.5 EC	Assert
Imazamox	Imam	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
Isoxaflutole		Bayer	4 SC, 2 SC	BalancePro / Balance Flexx
Isoxaflutole + thien carbazon + Safener		Bayer	2.63 SC	Corus
MCPA	MCPA	Various	4 EC, S	Several
Mesosulfuron + safener	Mess	Bayer	2 WG	Silverado
Mesosulfuron + Propoxycarbazone	Mess + Prop	Bayer	8.14 + 2.03 WDG	Rimfire
Mesotrione	Mest	Syngenta	4 SC	Callisto
Mesotrione + s-metolachlor		Syngenta	0.33 + 3.3 SC	Camix
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-meto + mesotrione + glyt		Syngenta	4.38 SC	Halex GT
Metribuzin	Metr	Bayer	4 F, 75 DF	Sencor
Metsulfuron	Mets	DuPont	60 DF	Ally, Escort, Cimarron
Nicosulfuron	Nico	DuPont	75 DF	Accent
Nicosulfuron + Rimsulfuron		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
Propoxycarbazone	Prcz	Bayer	70 WDG	Olympus
Pyrasulfotole + bromoxynil +Safener + Fenoxaprop		Bayer		Wolverine Twin Pack
Pyroxasulfone	KIH - 485	Kumiai	85 WG	KIH - 485
Pyraflufen	pyff	Nichino	0.21 EC	Ecopart / ET Herbicide
Pyroxsulam		Dow	7.5 WG	PowerFlex
Quinclorac		BASF	75 WP	Paramount
Quizalofop-P	Qufp-P	DuPont, Gowan	0.88 EC	Assure II, Targa

Rimsulfuron + Thifensulfuron	Rims + Thif, Bsis	DuPont	75 DF	Basis
Rimsulfuron		DuPont	25 DF	Matrix / Resolve
Saflufenacil	BAS 800 04	BASF	2.85 SC	Sharpen
Saflufenacil + dimethenamid	BAS 78102 H	BASF	5.57 EC	Integrity
Sethoxydim	Seth	BASF	1.5 EC	Poast
Sulfentrazone	Suen	DuPont/FMC	75 DF	Authority, Spartan, Payload
Sulfentrazone + Cloransulam		FMC	70 WDG	Authority First, Sonic
Sulfometuron	Sume	DuPont	75 DF	Oust
Sulfosulfuron		Monsanto	75 WG	Maverick, Outrider
Tebuthiuron		Dow	20 WG	Spike
Tembotrione + isoxadifen safener	AE172747	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	Thif, Pinn ,Pncl	DuPont	75 DF	Several
Topramezone		AmVac	2.8 SC	Impact
Tralkoxydim	Tral	Syngenta	40 DF	Achieve
Triallate	GWN 3040	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

*Abbreviations 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.