

Wild Proso Millet Control in Field Corn

Trial ID: 98wipm                      Investigator:  
 Location: Elgin, MN                      Study Dir.: Fritz Breitenbach

**GENERAL TRIAL INFORMATION**

**Study Director:** Fritz Breitenbach                      **Title:** IPM Specialist  
**Affiliation:** University of Minnesota Extension Service    **Postal Code:** 55904

**Other Investigator:** Many                      **Title:**  
**Affiliation:** University of Minnesota                      **Postal Code:**

**Trial Status:** Active                      **Initiation Date:** May-05-98    **Country:** USA  
**City:** Elgin                      **State/Prov.:** Minnesota                      **Postal Code:** 55932

**CROP AND PEST DESCRIPTION**

Weed 1.Wipm    wild proso mill 2.Colq    C. lambsquarters 3.Vele    velvetleaf  
 4.                      5.                      6.  
 7.                      8.                      9.

**Crop 1: ZEAMX**                      **Variety:** DK 477 IMI                      **Planting Date:** May-05-98  
**Planting Method:** SEEDED                      **Rate:** 32000    P/A                      **Depth:** 2.5 in  
**Perennial Age:**                      **Row Spacing:** 30 in                      **Seed Bed:** MEDIUM  
**Soil Temperature:**                      **Soil Moisture:** DRY                      **Emergence Date:**

**Crop 2: ZEAMX**                      **Variety:** DK 493 GR                      **Planting Date:** May-05-98  
**Planting Method:**                      **Rate:**                      **Depth:**  
**Perennial Age:**                      **Row Spacing:**                      **Seed Bed:**  
**Soil Temperature:**                      **Soil Moisture:**                      **Emergence Date:**

**Crop 3: ZEAM**                      **Variety:** DK 493 RR                      **Planting Date:** May-05-98  
**Planting Method:**                      **Rate:**                      **Depth:**  
**Perennial Age:**                      **Row Spacing:**                      **Seed Bed:**  
**Soil Temperature:**                      **Soil Moisture:**                      **Emergence Date:**

**Plot Width, Unit:** 10    FT    **Plot Length, Unit:** 30    FT    **Reps:** 4  
**Site Type:**  
**Tillage Type:** Conventional                      **Study Design:** SPLIT-BLOCK  
**Field Prep./Maintenance:** 2X Field Cultivator  
**Trial Initiation Comments:**

**Previous: Crops**                      **Pesticides**                      **Year**  
 1. Sweet Corn                      Frontier/Laddock                      97  
 2.  
 3.

**SOIL DESCRIPTION**

**Texture:** Silt Loam                      **% OM:**                      **% Sand:**                      **% Silt:**                      **% Clay:**  
**pH:**                      **CEC:**                      **Soil Name:** Floyd Silt Loam                      **Fertility Level:** GOOD

**MOISTURE CONDITIONS**

On: Date	Time	Amount	Unit	Type	Interval	Unit
1.May-05-98		1.43	in	Rainfall total	7	day
2.May-12-98		0.71	in			
3.May-19-98		0.73	in			
4.May-26-98		0.41	in			
5.Jun-02-98		0.23	in			
6.Jun-09-98		1.53	in			
7.Jun-16-98		1.02	in			
8.Jun-23-08		2.62	in			
9.Jun-30-98		1.07	in			
10.Jul-07-98		0.63	in			
11.Jul-14-98		1.47	in			

**APPLICATION DESCRIPTION**

	A	B	C	D	E	F
<b>Application Date:</b>	May-06-98	May-26-98	Jun-10-98			
<b>Time of Day:</b>	3:00p		7:30p			
<b>Application Method:</b>	SPRAY	SPRAY	SPRAY			
<b>Application Timing:</b>	PREPRE	E-POST	POST			
<b>Applic. Placement:</b>	BROSIO	BROFOL	BROFOL			
<b>Air Temp., Unit:</b>	75 f	73 f	64 F			
<b>% Relative Humidity:</b>	31	42	84			
<b>Wind Velocity, Unit:</b>	12 mph	8 mph	8 MPH			
<b>Dew Presence (Y/N):</b>	N	n	N			
<b>Water Hardness:</b>						
<b>Soil Temp., Unit:</b>						
<b>Soil Moisture:</b>	INADEQUAT	ADEQUATE	EXCESSIVE			
<b>% Cloud Cover:</b>	0	0	60			

**CROP STAGE AT EACH APPLICATION**

	A	B	C	D	E	F
Crop 1 ZEAMX Stage:	NA	2 collar	5 collar			
Stage Scale:						
Height, Unit:		3.5 inch	9 inch			
Crop 2 ZEAMX Stage:	NA					
Stage Scale:						
Height, Unit:						
Crop 3 ZEAM Stage:	NA					
Stage Scale:						
Height, Unit:						

**WEED STAGE AT EACH APPLICATION**

	A	B	C	D	E	F
Weed 1 Wipm Stage:	NA	2-3	5-6			
Stage Scale:		inch	inch			
Density, Unit:		31 sqft				
Weed 2 Colq Stage:	NA	2-6	5-12			
Stage Scale:		inch	inch			
Density, Unit:		8 sqft				
Weed 3 Vele Stage:	NA	1-2	2-5			
Stage Scale:		inch	inch			
Density, Unit:		5 sqft				

**APPLICATION EQUIPMENT**

	A	B	C	D	E	F
Appl. Equipment:	Tractor	Tractor	Tractor			
Operating Pressure:	32 PSI	32 PSI	32 PSI			
Nozzle Type:	Drift grd	Drift grd	Drift grd			
Nozzle Size:	11002	11002	11002			
Nozzle Spacing, Unit:	15 inch	15 inch	15 inch			
Nozzles/Row:	2	2	2			
Band Width, Unit:						
Boom Length, Unit:	10 ft	10 ft	10 ft			
Boom Height, Unit:	11 in	11 in	11 in			
Ground Speed, Unit:	3.5 mph	3.5 mph	3.5 mph			
Incorporation Equip.:						
Hours to Incorp.:						
Incorp. Depth, Unit:						
Carrier:	water	water	water			
Spray Volume, Unit:	20 gpa	20 gpa	20 gpa			
Spray pH:						
Propellant:	Comp air	Comp air	Comp air			
Tank Mix (Y/N):	y	y	y			

Trt No	Treatment Application Comment
1	Corn varieties DK 477 IMI, DK 493 GR, DK 493 RR, DK 493 SR

Wild Proso Millet Control in Field Corn

Trial ID: 98wipm  
Location: Elgin, MN

Investigator:  
Study Dir.: Fritz Breitenbach

Weed Code Crop Code Part Rated Rating Data Type Rating Unit Rating Date Footnote Number Trt-Eval Interval PRM Data Type # Subsamples, Dec.	wipm ZEAMX PHYGEN percent May-26-98	wipm ZEAMX ORGDEA CONTRO percent May-26-98	wipm ZEAMX ORGDEA CONTRO percent Jun-10-98	colq ZEAMX ORGDEA CONTRO percent Jun-10-98	vele ZEAMX ORGDEA CONTRO percent Jun-10-98	wipm ZEAMX ORGDEA CONTRO percent Jul-14-98	colq ZEAMX ORGDEA CONTRO percent Jul-14-98	vele ZEAMX ORGDEA CONTRO percent Jul-14-98	wipm ZEAMX ORGDEA CONTRO percent Aug-13-98	colq ZEAMX ORGDEA CONTRO percent Aug-13-98	vele ZEAMX ORGDEA CONTRO percent Aug-13-98
1 Balance 75 WG 2.0 OZ/A PRE	5.8	93.0	87.5	100.0	100.0	88.8	96.3	100.0	82.5	100.0	100.0
2 Surpass 6.4 E 3.0 PT/A PRE	0.0	96.8	91.3	85.0	73.8	88.8	90.0	80.0	78.8	86.3	81.3
3 Balance 3 Atrazine 75 WG 90 DF 2.0 OZ/A 1.1 LB/A PRE PRE	1.3	94.8	90.0	100.0	100.0	87.5	100.0	100.0	87.5	100.0	100.0
4 Balance 4 Surpass 75 WG 6.4 E 2.0 OZ/A 1.25 PT/A PRE PRE	0.8	98.8	94.8	100.0	100.0	95.0	97.5	100.0	90.0	98.8	100.0
5 Harness 5 Balance 7 E 75 WG 2.48 PT/A 1.41 OZ/A PRE PRE	0.0	100.0	96.0	100.0	100.0	95.0	100.0	100.0	93.8	100.0	100.0
6 Axiom 6 Balance 68 DF 75 DF 13.0 OZ/A 1.5 OZ/A PRE PRE	-0.2	91.2	86.0	99.2	99.8	84.8	99.5	100.0	72.6	99.5	100.2
7 Balance 7 Surpass 7 Accent 7 COC 7 28% N 75 WG 6.4 E 75 WG L L 2.0 OZ/A 1.25 PT/A 0.5 OZ/A 1.0 % V/V 2.0 QT/A PRE PRE POST POST POST	3.3	98.8	92.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
8 Surpass 8 Accent 8 Homet 8 COC 8 28% N 6.4 E 75 WG 85.6 WG L L 2.0 PT/A 0.5 OZ/A 2.40 OZ/A 1.0 % V/V 2.0 QT/A PRE POST POST POST POST	0.0	95.0	85.8	68.8	68.8	100.0	100.0	95.0	100.0	98.8	91.3
9 Surpass 9 Accent 9 Homet 9 COC 9 28% N 6.4 E 75 WG 85.6 WG L L 1.00 PT/A 0.667 OZ/A 2.40 OZ/A 1.0 % V/V 2.0 QT/A PRE POST POST POST POST	0.0	90.5	77.5	45.0	50.0	100.0	98.8	98.8	100.0	98.8	97.5
10 Surpass 10 Accent 10 Clarity 10 COC 10 28% N 6.4 E 75 WG 4 E L L 1.00 PT/A 0.667 OZ/A 4.0 OZ/A 1.0 % V/V 2.0 QT/A PRE POST POST POST POST	0.0	90.0	81.3	60.0	55.0	100.0	100.0	93.8	100.0	100.0	85.0
11 Surpass 11 Accent 11 NIS 11 28% N 6.4 E 75 WG L L 1.00 PT/A 0.667 OZ/A 0.25 % V/V 2.0 QT/A PRE POST POST POST	0.0	89.3	77.5	50.0	58.3	100.0	85.0	82.5	100.0	80.0	76.3
12 Surpass 12 Accent 12 Aim 12 Atrazine 12 NIS 6.4 E 75 WG 40 DF 90 DF L 1.00 PT/A 0.667 OZ/A 0.32 OZ/A 0.80 LB/A 0.25 % V/V PRE POST POST POST POST	0.0	87.3	75.0	67.5	52.5	100.0	100.0	100.0	100.0	100.0	100.0
13 Surpass 13 Accent Gold 13 Clarity 13 COC 13 28% N 6.4 E 83.8 WG 4 L L L 1.00 PT/A 2.9 OZ/A 2.0 OZ/A 1.0 % V/V 2.0 QT/A PRE POST POST POST POST	0.0	88.8	74.5	57.5	42.5	98.8	100.0	100.0	97.5	100.0	100.0
14 Untreated Check	0.0	0.0	0.5	0.2	-0.9	-0.1	0.1	0.1	-0.3	0.2	-0.1
15 Balance 15 Surpass 15 Atrazine 75 WG 6.4 E 90 DF 2.0 OZ/A 1.25 PT/A 1.1 LB/A PRE PRE PRE	7.0	98.8	95.0	100.0	100.0	96.3	100.0	100.0	95.0	100.0	100.0
16 Balance 16 Dual II Mag 75 WG 7.64 E 2.0 OZ/A 0.835 PT/A PRE PRE	3.3	96.3	91.3	100.0	100.0	93.8	98.8	100.0	90.0	100.0	100.0
17 Dual II Mag 17 Northstar 17 Accent 17 COC 17 28% N 7.64 E 47.4 WG 75 WG L L 1.34 PT/A 5.0 OZ/A 0.33 OZ/A 1.0 % V/V 2.0 QT/A PRE POST POST POST POST	0.0	91.3	82.5	52.5	55.0	98.8	98.8	95.0	96.3	95.0	91.3
18 Dual II Mag 18 Northstar 18 Accent 18 COC 18 28% N 7.64 E 47.4 WG 75 WG L L 1.34 PT/A 5.0 OZ/A 0.50 OZ/A 1.0 % V/V 2.0 QT/A PRE POST POST POST POST	0.0	89.3	83.3	55.0	55.0	100.0	100.0	98.8	100.0	100.0	97.5



Weed Code Crop Code Part Rated Rating Data Type Rating Unit Rating Date Footnote Number Tr-Eval Interval PRM Data Type # Subsamples, Dec.							wipm ZEAMX PHYGEN percent May-26-98	wipm ZEAMX ORGDEA CONTRO percent May-26-98	wipm ZEAMX ORGDEA CONTRO percent Jun-10-98	colq ZEAMX ORGDEA CONTRO percent Jun-10-98	vele ZEAMX ORGDEA CONTRO percent Jun-10-98	wipm ZEAMX ORGDEA CONTRO percent Jul-14-98	colq ZEAMX ORGDEA CONTRO percent Jul-14-98	vele ZEAMX ORGDEA CONTRO percent Jul-14-98	wipm ZEAMX ORGDEA CONTRO percent Aug-13-98	colq ZEAMX ORGDEA CONTRO percent Aug-13-98	vele ZEAMX ORGDEA CONTRO percent Aug-13-98
Trt No.	Treatment Name	Form Amt	Fm Ds	Rate	Unit	Grow Stg											
39	Marksman -Dicamba	3.2	F	3.5	PT/A	E-POST	0.0	0.0	90.0	100.0	100.0	98.8	100.0	100.0	93.8	100.0	100.0
	-Atrazine	2.1		2.297													
39	Poast Plus	1	E	0.375	PT/A	E-POST											
39	COC	L		1.25	% V/V	E-POST											
39	28% N	L		1.25	% V/V	E-POST											
39	Poast Plus	1	E	1.128	PT/A	POST											
39	COC	L		1.25	% V/V	POST											
39	28% N	L		1.25	% V/V	POST											
40	BAS 656 07H	6	E	17.5	OZ/A	PRE	0.0	93.8	88.8	60.0	60.0	100.0	97.5	97.5	100.0	95.0	96.3
40	Laddock S12	5	L	1.75	PT/A	POST											
40	Poast Plus	1	E	1.50	PT/A	POST											
40	COC	L		1.25	% V/V	POST											
40	28% N	L		1.25	% V/V	POST											
LSD (P= 10)				2.26			2.26	3.55	4.98	8.32	9.46	3.49	4.78	4.98	6.96	5.19	5.77
Standard Deviation				1.93			1.93	3.03	4.25	7.10	8.07	2.98	4.07	4.25	5.94	4.43	4.92
CV				259.17			259.17	3.94	5.46	9.24	10.74	3.24	4.41	4.67	6.66	4.83	5.47
Grand Mean				0.76			0.76	78.33	79.37	78.31	76.54	93.7	94.2	92.66	90.97	93.41	91.61
Bartlett's X2				7.955			7.955	14.792	27.285	18.9	15.762	13.779	28.401	21.622	39.092	31.513	10.065
P(Bartlett's X2)				0.539			0.539	0.994	0.747	0.126	0.398	0.615	0.005	0.087	0.014	0.005	0.757