

# University of Nebraska

## Valor Burndown in Corn

Trial ID: L0723  
Location: Havelock

Study Dir.: Kevin Horky  
Investigator: Dr. Mark Bernards

### GENERAL TRIAL INFORMATION

**Study Director:** Kevin Horky **Title:** Research Technician  
**Affiliation:** University of Nebraska Lincoln  
**Postal Code:** 68583  
**Investigator:** Dr. Mark Bernards **Title:** Ext. Weed Specialist  
**Affiliation:** University of Nebraska Lincoln  
**Postal Code:** 68583

### TRIAL LOCATION

**City:** Lincoln  
**State/Prov.:** NE  
**Postal Code:** 68583  
**Country:** 68583

**Conducted Under GLP (Y/N):** N

**Conducted Under GEP (Y/N):** N

### CROP AND WEED DESCRIPTION

Weed	Code	Common Name	Scientific Name
1.	LAMAM	Henbit	Lamium amplexicaule
2.	CAPSS	Shepherdspurse	Capsella sp.
3.	DESSS	Tansymustard	Descurainia sp.
4.	ALOCA	Foxtail, Carolina	Alopecurus carolinianus
5.	HELAN	Common sunflower	Helianthus annuus
6.	AMAPA	Amaranth, Palmer	Amaranthus palmeri
7.	SETVI	Green foxtail	Setaria viridis
8.	ABUTH	Velvetleaf	Abutilon theophrasti

**Crop 1:** ZEAMX CORN, FIELD **Variety:** Dekalb 6019 RR  
**Planting Date:** 17/May/2007 **Planting Method:** planted  
**Rate:** 21000 seeds/acre **Depth:** 1.5 in  
**Row Spacing:** 30 in **Seed Bed:** medium/trashy  
**Soil Temperature:** 14 C **Soil Moisture:** good **Emergence Date:** 22/May/2007

### SITE AND DESIGN

**Plot Width, Unit:** 10 FT **Plot Length, Unit:** 30 FT **Reps:** 3  
**Site Type:** field  
**Tillage Type:** no-till **Study Design:** RANDOMIZED COMPLETE BLOCK

### MAINTENANCE

**Field Prep./Maintenance:** Field had anhydrous ammonia applied at rate of 120 lbs nitrogen/acre.

### SOIL DESCRIPTION

**% Sand:** 6 **% OM:** 3.1 **Texture:** Silty clay loam  
**% Silt:** 65 **pH:** 6.6 **Soil Name:** sharpesburg  
**% Clay:** 29 **CEC:** 30 **Fert. Level:** good

### APPLICATION DESCRIPTION

	A	B
<b>Application Date:</b>	2/May/2007	22/Jun/2007
<b>Time of Day:</b>	6:00 pm	12:30 pm
<b>Application Method:</b>	Spray	Spray
<b>Application Timing:</b>	epp	mpost
<b>Applic. Placement:</b>	BROFOL	BROFOL
<b>Air Temp., Unit:</b>	70 F	87 F
<b>% Relative Humidity:</b>	31	50
<b>Wind Velocity, Unit:</b>	8 mph	5 mph
<b>Dew Presence (Y/N):</b>	n	n
<b>Soil Temp., Unit:</b>	12 C	18 C
<b>Soil Moisture:</b>	good	good
<b>% Cloud Cover:</b>	30	50

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## CROP STAGE AT EACH APPLICATION

	A	B
Crop 1 Code, Stage:	ZEAMX	ZEAMX
Stage Scale:	pre	V6
Height, Unit:	26	in

## WEED STAGE AT EACH APPLICATION

	A	B
Weed 1 Code, Stage:	LAMAM	LAMAM
Stage Scale:	5 in	
Density, Unit:	50 m2	
Weed 2 Code, Stage:	CAPSS	CAPSS
Stage Scale:	18 in	
Density, Unit:	4 m2	
Weed 3 Code, Stage:	DESSS	DESSS
Stage Scale:	18 in	
Density, Unit:	6 m2	
Weed 4 Code, Stage:	ALOCA	ALOCA
Stage Scale:	8 in	
Density, Unit:	15 m2	
Weed 5 Code, Stage:	HELAN	HELAN
Stage Scale:	2 in	10 in
Density, Unit:	2 m2	5 m2
Weed 6 Code, Stage:	AMAPA	AMAPA
Stage Scale:		8 in
Density, Unit:		10 m2
Weed 7 Code, Stage:	SETVI	SETVI
Stage Scale:		8 in
Density, Unit:		10 m2
Weed 8 Code, Stage:	ABUTH	ABUTH
Stage Scale:		10 in
Density, Unit:		5 m2

## APPLICATION EQUIPMENT

	A	B
Appl. Equipment:	IH cub	IH cub
Operating Pressure:	30	30
Nozzle Type:	Turbo Tee	Turbo Tee
Nozzle Size:	110015	110015
Nozzle Spacing, Unit:	15 in	15 in
Nozzles/Row:	2	2
Boom Length, Unit:	10 ft	10 ft
Boom Height, Unit:	28 in	34 in
Ground Speed, Unit:	3 mph	3 mph
Carrier:	water	water
Spray Volume, Unit:	15 gpa	15 gpa
Propellant:	air	air

## Trial Comments

Valent protocol MD68.01

Data request

Crop Injury 28,42 DAT

Weed Control 28, 42 DAT

EPP 14days before planting. Mpost is when corn is 12 inches.

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					ABUTH ZEAMX CONTROL %	HELAN ZEAMX CONTROL %	AMAPA ZEAMX CONTROL %	SETVI ZEAMX CONTROL %	ZEAMX PHYGEN %
					21/Jun/2007	21/Jun/2007	21/Jun/2007	21/Jun/2007	21/Jun/2007
Trt No.	Treatment Name	Rate	Grow Unit	Plot	1	2	3	4	5
1	Check			101	0	0	0	0	0
				204	0	0	0	0	0
				306	0	0	0	0	0
				Mean =	0	0	0	0	0
2	Roundup Weathermax	22 oz/a	epp	102	0	0	0	0	0
	AMS	2.5 lb/a	epp	207	0	0	0	0	0
	Roundup Weathermax	22 oz/a	mpost	303	0	0	0	0	0
	AMS	2.5 lb/a	mpost						
				Mean =	0	0	0	0	0
3	Roundup Weathermax	22 oz/a	epp	103	85	80	80	30	0
	Valor SX	2 oz/a	epp	206	90	80	95	40	0
	AMS	2.5 lb/a	epp	302	60	85	40	30	0
	Roundup Weathermax	22 oz/a	mpost						
	AMS	2.5 lb/a	mpost						
				Mean =	78	82	72	33	0
4	Roundup Weathermax	22 oz/a	epp	104	75	85	85	30	0
	Valor SX	2 oz/a	epp	202	70	80	40	30	0
	Aatrex	1 lb ai/a	epp	305	90	80	90	30	0
	AMS	2.5 lb/a	epp						
	Roundup Weathermax	22 oz/a	mpost						
	AMS	2.5 lb/a	mpost						
				Mean =	78	82	72	30	0
5	Roundup Weathermax	22 oz/a	epp	105	85	95	70	70	0
	Bicep II Magnum	2.1 qt/a	epp	203	70	90	75	60	0
	AMS	2.5 lb/a	epp	301	90	95	80	80	0
	Roundup Weathermax	22 oz/a	mpost						
	AMS	2.5 lb/a	mpost						
				Mean =	82	93	75	70	0
6	Roundup Weathermax	22 oz/a	epp	106	85	95	70	40	0
	Valor SX	2 oz/a	epp	205	75	85	95	40	0
	AMS	2.5 lb/a	epp	307	80	90	85	40	0
	Aatrex	1 lb ai/a	mpost						
	Roundup Weathermax	22 oz/a	mpost						
	AMS	2.5 lb/a	mpost						
				Mean =	80	90	83	40	0
7	Roundup Weathermax	22 oz/a	epp	107	85	90	85	30	0
	Valor SX	2 oz/a	epp	201	50	60	65	50	0
	AMS	2.5 lb/a	epp	304	50	50	55	30	0
	Rource	3 oz/a	mpost						
	Roundup Weathermax	22 oz/a	mpost						
	AMS	2.5 lb/a	mpost						
				Mean =	62	67	68	37	0

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Weed Code					ABUTH	HELAN	AMAPA	SETVI	ZEAMX	
Crop Code					ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	
Rating Data Type					CONTROL	CONTROL	CONTROL	CONTROL	PHYGEN	
Rating Unit					%	%	%	%	%	
Rating Date					26/Jul/2007	26/Jul/2007	26/Jul/2007	26/Jul/2007	26/Jul/2007	
Trt	Treatment	Rate	Grow							
No.	Name	Rate	Unit	Stg	Plot	6	7	8	9	10
1	Check				101	0	0	0	0	0
					204	0	0	0	0	0
					306	0	0	0	0	0
					Mean =	0	0	0	0	0
2	Roundup Weathermax	22 oz/a	epp		102	99	99	99	99	0
	AMS	2.5 lb/a	epp		207	99	99	99	99	0
	Roundup Weathermax	22 oz/a	mpost		303	99	99	99	99	0
	AMS	2.5 lb/a	mpost							
					Mean =	99	99	99	99	0
3	Roundup Weathermax	22 oz/a	epp		103	99	99	99	99	0
	Valor SX	2 oz/a	epp		206	99	99	99	99	0
	AMS	2.5 lb/a	epp		302	99	99	99	99	0
	Roundup Weathermax	22 oz/a	mpost							
	AMS	2.5 lb/a	mpost							
					Mean =	99	99	99	99	0
4	Roundup Weathermax	22 oz/a	epp		104	99	99	99	99	0
	Valor SX	2 oz/a	epp		202	99	99	99	99	0
	Aatrex	1 lb ai/a	epp		305	99	99	99	99	0
	AMS	2.5 lb/a	epp							
	Roundup Weathermax	22 oz/a	mpost							
	AMS	2.5 lb/a	mpost							
					Mean =	99	99	99	99	0
5	Roundup Weathermax	22 oz/a	epp		105	99	99	99	99	0
	Bicep II Magnum	2.1 qt/a	epp		203	99	99	99	99	0
	AMS	2.5 lb/a	epp		301	99	99	99	99	0
	Roundup Weathermax	22 oz/a	mpost							
	AMS	2.5 lb/a	mpost							
					Mean =	99	99	99	99	0
6	Roundup Weathermax	22 oz/a	epp		106	99	99	99	99	0
	Valor SX	2 oz/a	epp		205	99	99	99	99	0
	AMS	2.5 lb/a	epp		307	99	99	99	99	0
	Aatrex	1 lb ai/a	mpost							
	Roundup Weathermax	22 oz/a	mpost							
	AMS	2.5 lb/a	mpost							
					Mean =	99	99	99	99	0
7	Roundup Weathermax	22 oz/a	epp		107	99	99	99	99	0
	Valor SX	2 oz/a	epp		201	99	99	99	99	0
	AMS	2.5 lb/a	epp		304	99	99	99	99	0
	Rource	3 oz/a	mpost							
	Roundup Weathermax	22 oz/a	mpost							
	AMS	2.5 lb/a	mpost							
					Mean =	99	99	99	99	0

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Weed Code				ABUTH	HELAN	AMAPA	SETVI	ZEAMX	
Crop Code				ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	
Rating Data Type				CONTROL	CONTROL	CONTROL	CONTROL	PHYGEN	
Rating Unit				%	%	%	%	%	
Rating Date				21/Jun/2007	21/Jun/2007	21/Jun/2007	21/Jun/2007	21/Jun/2007	
Trt	Treatment	Rate	Grow						
No.	Name	Rate	Unit	Stg	1	2	3	4	5
1	Check				0 b	0 c	0 b	0 c	0 a
2	Roundup Weathermax	22 oz/a	epp		0 b	0 c	0 b	0 c	0 a
	AMS	2.5 lb/a	epp						
	Roundup Weathermax	22 oz/a	mpost						
	AMS	2.5 lb/a	mpost						
3	Roundup Weathermax	22 oz/a	epp		78 a	82 ab	72 a	33 b	0 a
	Valor SX	2 oz/a	epp						
	AMS	2.5 lb/a	epp						
	Roundup Weathermax	22 oz/a	mpost						
	AMS	2.5 lb/a	mpost						
4	Roundup Weathermax	22 oz/a	epp		78 a	82 ab	72 a	30 b	0 a
	Valor SX	2 oz/a	epp						
	Aatrex	1 lb ai/a	epp						
	AMS	2.5 lb/a	epp						
	Roundup Weathermax	22 oz/a	mpost						
	AMS	2.5 lb/a	mpost						
5	Roundup Weathermax	22 oz/a	epp		82 a	93 a	75 a	70 a	0 a
	Bicep II Magnum	2.1 qt/a	epp						
	AMS	2.5 lb/a	epp						
	Roundup Weathermax	22 oz/a	mpost						
	AMS	2.5 lb/a	mpost						
6	Roundup Weathermax	22 oz/a	epp		80 a	90 a	83 a	40 b	0 a
	Valor SX	2 oz/a	epp						
	AMS	2.5 lb/a	epp						
	Aatrex	1 lb ai/a	mpost						
	Roundup Weathermax	22 oz/a	mpost						
	AMS	2.5 lb/a	mpost						
7	Roundup Weathermax	22 oz/a	epp		62 a	67 b	68 a	37 b	0 a
	Valor SX	2 oz/a	epp						
	AMS	2.5 lb/a	epp						
	Rource	3 oz/a	mpost						
	Roundup Weathermax	22 oz/a	mpost						
	AMS	2.5 lb/a	mpost						
LSD (P=.05)					20.1	14.1	31.9	11.5	0.0
Standard Deviation					11.3	7.9	17.9	6.5	0.0
CV					20.86	13.39	33.9	21.62	0.0
Grand Mean					54.29	59.05	52.86	30.0	0.0
Bartlett's X2					3.33	12.932	5.121	0.861	0.0
P(Bartlett's X2)					0.504	0.012*	0.275	0.65	.
Replicate F					1.087	1.733	0.178	0.340	0.000
Replicate Prob(F)					0.3683	0.2181	0.8391	0.7187	1.0000
Treatment F					33.220	81.505	12.388	42.264	0.000
Treatment Prob(F)					0.0001	0.0001	0.0002	0.0001	1.0000

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Weed Code				ABUTH	HELAN	AMAPA	SETVI	ZEAMX
Crop Code				ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX
Rating Data Type				CONTROL	CONTROL	CONTROL	CONTROL	PHYGEN
Rating Unit				%	%	%	%	%
Rating Date				26/Jul/2007	26/Jul/2007	26/Jul/2007	26/Jul/2007	26/Jul/2007
Trt	Treatment	Rate	Grow					
No.	Name	Rate Unit	Stg	6	7	8	9	10
1	Check			0 b	0 b	0 b	0 b	0 a
2	Roundup Weathermax	22 oz/a	epp	99 a	99 a	99 a	99 a	0 a
	AMS	2.5 lb/a	epp					
	Roundup Weathermax	22 oz/a	mpost					
	AMS	2.5 lb/a	mpost					
3	Roundup Weathermax	22 oz/a	epp	99 a	99 a	99 a	99 a	0 a
	Valor SX	2 oz/a	epp					
	AMS	2.5 lb/a	epp					
	Roundup Weathermax	22 oz/a	mpost					
	AMS	2.5 lb/a	mpost					
4	Roundup Weathermax	22 oz/a	epp	99 a	99 a	99 a	99 a	0 a
	Valor SX	2 oz/a	epp					
	Aatrex	1 lb ai/a	epp					
	AMS	2.5 lb/a	epp					
	Roundup Weathermax	22 oz/a	mpost					
	AMS	2.5 lb/a	mpost					
5	Roundup Weathermax	22 oz/a	epp	99 a	99 a	99 a	99 a	0 a
	Bicep II Magnum	2.1 qt/a	epp					
	AMS	2.5 lb/a	epp					
	Roundup Weathermax	22 oz/a	mpost					
	AMS	2.5 lb/a	mpost					
6	Rounudup Weathermax	22 oz/a	epp	99 a	99 a	99 a	99 a	0 a
	Valor SX	2 oz/a	epp					
	AMS	2.5 lb/a	epp					
	Aatrex	1 lb ai/a	mpost					
	Roundup Weathermax	22 oz/a	mpost					
	AMS	2.5 lb/a	mpost					
7	Roundup Weathermax	22 oz/a	epp	99 a	99 a	99 a	99 a	0 a
	Valor SX	2 oz/a	epp					
	AMS	2.5 lb/a	epp					
	Rource	3 oz/a	mpost					
	Roundup Weathermax	22 oz/a	mpost					
	AMS	2.5 lb/a	mpost					
LSD (P=.05)				0.0	0.0	0.0	0.0	0.0
Standard Deviation				0.0	0.0	0.0	0.0	0.0
CV				0.0	0.0	0.0	0.0	0.0
Grand Mean				84.86	84.86	84.86	84.86	0.0
Bartlett's X2				0.0	0.0	0.0	0.0	0.0
P(Bartlett's X2)				.	.	.	.	.
Replicate F				0.000	0.000	0.000	0.000	0.000
Replicate Prob(F)				1.0000	1.0000	1.0000	1.0000	1.0000
Treatment F				0.000	0.000	0.000	0.000	0.000
Treatment Prob(F)				1.0000	1.0000	1.0000	1.0000	1.0000

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.