

Fall-Applied Valor for Winter Annual Control in Fields Going to Corn

Trial ID: WA Fall Valor

Study Dir.:

Location: Parker South #3

Investigator: David L Regehr

CROP AND WEED DESCRIPTION

Weed	Code	Common Name	Scientific Name
1.	LAMAM	HENBIT	LAMIUM AMPLEXICAULE L.
2.	LACSE	LETTUCE, PRICKLY	LACTUCA SERRIOLA L./TORN.
3.	THLAR	PENNYCRESS, FIELD	THLASPI ARVENSE L.
4.	CONCA	HORSEWEED	CONYZA CANADENSIS (L.) CRONQ.
5.	BROTE	BROME, DOWNY	BROMUS TECTORUM L.

SITE AND DESIGN

Plot Width, Unit: 6.7 FT Plot Length, Unit: 25 FT Reps: 4

Site Type: cropland

Tillage Type: long-term no-till

Study Design: RANDOMIZED COMPLETE BLOCK

	Previous Crops	Previous Pesticides	Year
1.	soybean	various	2002

SOIL DESCRIPTION

% Sand: 21 % OM: 3.0 Texture: silt loam
 % Silt: 58 pH: 6.4 Soil Name: Kahola
 % Clay: 21 CEC: 18 Fert. Level: good

Overall Moisture Conditions: good

APPLICATION DESCRIPTION

	A
Application Date:	16/Dec/2002
Time of Day:	2 PM
Application Method:	spray
Application Timing:	fall
Applic. Placement:	leaf/soil
Air Temp., Unit:	66 F
% Relative Humidity:	40
Wind Velocity, Unit:	4 N
Dew Presence (Y/N):	N
Water Hardness:	city
Soil Temp., Unit:	39 F
Soil Moisture:	good
% Cloud Cover:	0

WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code, Stage:	LAMAM .
Stage Scale:	2 inch
Density, Unit:	70 % cov
Weed 2 Code, Stage:	LACSE .
Stage Scale:	2-4" rose
Density, Unit:	5 #/plt
Weed 3 Code, Stage:	THLAR .
Stage Scale:	2-4" rose
Density, Unit:	5 #/plt
Weed 4 Code, Stage:	CONCA .
Stage Scale:	1-3" rose
Density, Unit:	3 #/plt
Weed 5 Code, Stage:	BROTE
Stage Scale:	tillered
Density, Unit:	spot .

APPLICATION EQUIPMENT

	A
Appl. Equipment:	CO2 bkpk
Operating Pressure:	26 psi
Nozzle Type:	turbo tee
Nozzle Size:	11002
Nozzle Spacing, Unit:	20 inch
Boom Length, Unit:	80 inch
Boom Height, Unit:	15 inch
Carrier:	water
Spray Volume, Unit:	20 gpa
Propellant:	CO2

Trial Comments

Control of winter annual weeds is critical to no-till farming. This no-till site was dominated by henbit (LAMAM), with field pennycress (THLAR) and prickly lettuce (LACSE) present in some areas.

When applied alone, Valor at 2 oz/A (tmt #8) and Clarity at 0.5 pt/A (tmt #12 & 13) had very little activity on these broadleaf weeds. Basis at 0.33 oz/A (tmt #14) and 2,4-D LV4 at 1 pt/A (tmt # 9 & 10) showed fair activity on henbit and better activity on field pennycress and prickly lettuce.

Depending on the species of winter annuals present, atrazine plus 2,4-D (tmt #1) or glyphosate plus 2,4-D (tmt # 17) appear to be more effective and less costly treatments for winter annual weed management.

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Weed Code					LAMAM	BROTE	THLAR	LAMAM	THLAR	LACSE
Rating Date					1/Apr/2003	1/Apr/2003	1/Apr/2003	28/Apr/2003	28/Apr/2003	28/Apr/2003
Trt-Eval Interval					106 DA-A	106 DA-A	106 DA-A	133 DA-A	133 DA-A	133 DA-A
Trt No.	Treatment Name	Product Rate	Product Rate Unit	Grow Stg	1	2	3	4	5	6
1	AAtrex 2,4-D LV4 Crop Oil Conc	1.11 1 1	lb/a pt/a pt/a	fall fall fall	94 ab	62 a	99 a	98 a	99 a	99 a
2	Untreated				0 e			0 f	0 d	0 c
3	Valor 2,4-D LV4 Crop Oil Conc	1.96 1 1	oz/a pt/a pt/a	fall fall fall	80 abc	10 a		90 abc	99 a	99 a
4	Valor Roundup Ultra Max Am Sulfate	1.96 12.8 2.5	oz/a fl oz/a lb/a	fall fall fall	74 bc	99 a	99 a	68 c	91 a	93 a
5	Valor Clarity Crop Oil Conc	1.96 0.5 1	oz/a pt/a pt/a	fall fall fall	64 c		25 a	45 d	55 b	55 b
6	Valor AAtrex 2,4-D LV4 Crop Oil Conc	1.96 1.11 1 1	oz/a lb/a pt/a pt/a	fall fall fall fall	96 a	75 a	99 a	98 a	99 a	99 a
7	Valor Basis Crop Oil Conc	1.96 0.33 1	oz/a oz/a pt/a	fall fall fall	78 abc	97 a		82 abc	84 a	99 a
8	Valor Crop Oil Conc	1.96 1	oz/a pt/a	fall fall	29 d	0 a	30 a	33 de	30 c	18 c
9	2,4-D LV4	1	pt/a	fall	75 abc	3 a	90 a	83 abc	92 a	97 a
10	2,4-D LV4 Crop Oil Conc	1 1	pt/a pt/a	fall fall	84 ab	0 a		90 abc	99 a	99 a
11	Roundup Ultra Max Am Sulfate	12.8 2.5	fl oz/a lb/a	fall fall	87 ab			76 abc	94 a	79 a
12	Clarity	0.5	pt/a	fall	31 d			23 e		
13	Clarity Crop Oil Conc	0.5 1	pt/a pt/a	fall fall	35 d		50 a	30 de	25 c	25 c
14	Basis Nonionic Surfactant	0.33 0.25	oz/a % v/v	fall fall	76 abc			70 bc	95 a	95 a
15	2,4-D LV4 Clarity	1 2	pt/a fl oz/a	fall fall	87 ab	90 a		92 abc	99 a	99 a
16	2,4-D LV4 Clarity	1 4	pt/a fl oz/a	fall fall	91 ab	25 a		95 ab	99 a	99 a
17	Roundup Ultra Max 2,4-D LV4 Am Sulfate	12.8 1 2.5	fl oz/a pt/a lb/a	fall fall fall	86 ab	99 a	99 a	94 abc	98 a	99 a
18	Roundup Ultra Max Clarity Am Sulfate	12.8 2 2.5	fl oz/a fl oz/a lb/a	fall fall fall	93 ab	99 a		88 abc	99 a	95 a
LSD (P=.05)					12.6	66.9	274.5	16.1	21.3	23.2
CV					12.75	54.15	35.81	16.33	18.65	20.49

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.