

Winter Annual Grass Burndown with Corvus - 1.

Trial ID: 09-ARC-9-M110 Location: Agronomy Res. Center

Investigator: Bryan Young, Professor, Southern Illinois University, bgyoung@siu.edu
 City State Zip Country: Carbondale IL 62901 USA
 Trial Status: FINAL Initiation Date: 04-04-09

Objectives: Determine the efficacy of Corvus and Corvus tank-mixtures for foliar burndown activity on winter annual grass species compared with commercial standards.

Crop 1: YACKR Arable land Variety: NON-CROP

Pest 1 Type: W	Code: POAAN	Poa annua L.	bluegrass, annual
Pest 2 Type: W	Code: STEME	Stellaria media (L.) Vill.	chickweed, common
Pest 3 Type: W	Code: LAMPU	Lamium purpureum L.	deadnettle, purple
Pest 4 Type: W	Code: TRZAX	Triticum aestivum L.	wheat, volunteer

Plot Width, Unit: 10	FT	Site Type: FIELD
Plot Length, Unit: 22	FT	Tillage Type: NO-TILL
Replications: 4		Study Design: Randomized Complete Block

Prior Crops, Year
 1. ZEAMD 2008

Field Prep./Maintenance: N 0 LB/A, P205 0 LB/A, K20 0 LB/A

% OM: 1.6	Texture: SILT LOAM
pH: 6.2	Soil Name: ST0Y
CEC: 7.4	Fert. Level: P1: 66 LB/A, K: 274 LB/A

Application Description

A
 Application Date: 04-04-09
 Time of Day: 11:00
 Application Method: Spray
 Application Timing: 3-4"BD
 Application Placement: BROFOL
 Applied By: DKT
 Air Temperature, Unit: 65 F
 % Relative Humidity: 26
 Wind Velocity, Unit: 3 MPH
 Wind Direction: E
 Dew Presence (Y/N): N
 Soil Temperature, Unit: 53 F
 Soil Moisture: ABONOR

04-04-09
 Crop stage at application: NA

Pest Stage At Each Application

Application Date: 04-04-09
 Weed Code: POANN
 Stage Majority (leaves): 25
 Stage Min, Max: 15 40
 Height Majority: 2 IN
 Height Min, Max: 1 4
 Density, Unit: 5 FT2
 Weed Code: STEME
 Stage Majority (leaves): 50
 Stage Min, Max: 30 60
 Height Majority: 6 IN
 Height Min, Max: 4 10
 Density, Unit: 3 FT2
 Weed Code: LAMPU
 Stage Majority (leaves): 8
 Stage Min, Max: 6 10
 Height Majority: 6 IN
 Height Min, Max: 4 8
 Density, Unit: 1 FT2
 Weed Code: TRZAX
 Stage Majority (leaves): 4
 Stage Min, Max: 3 10
 Height Majority: 7 IN
 Height Min, Max: 5 8
 Density, Unit: 16 FT2

Application Equipment

Appl. Equipment: CO2 sprayer
 Operating Pressure: 30 PSI
 Nozzle Type: Flat fan
 Nozzle Size: XR 8002
 Boom Length, Unit: 7.5 FT
 Spray Volume, Unit: 15 GPA

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									POAAN	POAAN	POAAN	STEME	STEME	STEME
Pest Code									04-18-09	05-02-09	05-02-09	04-18-09	05-02-09	05-02-09
Crop Code									Control	Control	Plants	Control	Control	Plants
Rating Date									Percent	Percent	0.5 m2	Percent	Percent	0.5 m2
Rating Data Type														
Rating Unit														
Rating Timing														
Trt-Eval Interval									14 DA-A	28 DA-A	28 DA-A	14 DA-A	28 DA-A	28 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
1	CORVUS	2.62	SC	0.0614	lb ai/a	3.0	fl oz/a	3-4"BD	A	28 c	33 f	3.1 bc	10 d	94 b
1	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	3-4"BD	A					0.1 ab
1	AMS	100	SG	5	% v/v	5	% v/v	3-4"BD	A					
2	CORVUS	2.62	SC	0.115	lb ai/a	5.6	fl oz/a	3-4"BD	A	30 c	33 f	3.0 bc	10 d	96 ab
2	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	3-4"BD	A					0.0 b
2	AMS	100	SG	5	% v/v	5	% v/v	3-4"BD	A					
3	CORVUS	2.62	SC	0.0614	lb ai/a	3.0	fl oz/a	3-4"BD	A	30 c	38 ef	3.8 b	28 c	97 ab
3	AATREX NINE-O	90	WG	1	lb ai/a	1.11	lb/a	3-4"BD	A					0.1 ab
3	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	3-4"BD	A					
3	AMS	100	SG	5	% v/v	5	% v/v	3-4"BD	A					
4	CORVUS	2.62	SC	0.115	lb ai/a	5.6	fl oz/a	3-4"BD	A	30 c	43 e	2.6 bc	33 c	99 a
4	AATREX NINE-O	90	WG	1	lb ai/a	1.11	lb/a	3-4"BD	A					0.0 b
4	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	3-4"BD	A					
4	AMS	100	SG	5	% v/v	5	% v/v	3-4"BD	A					
5	CORVUS	2.62	SC	0.0614	lb ai/a	3.0	fl oz/a	3-4"BD	A	33 c	38 ef	3.4 bc	35 c	99 a
5	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	3-4"BD	A					0.0 b
5	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	3-4"BD	A					
5	AMS	100	SG	5	% v/v	5	% v/v	3-4"BD	A					
6	CORVUS	2.62	SC	0.115	lb ai/a	5.6	fl oz/a	3-4"BD	A	30 c	55 d	3.8 b	30 c	99 a
6	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	3-4"BD	A					0.0 b
6	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	3-4"BD	A					
6	AMS	100	SG	5	% v/v	5	% v/v	3-4"BD	A					
7	CORVUS	2.62	SC	0.0614	lb ai/a	3.0	fl oz/a	3-4"BD	A	55 b	74 c	2.5 bc	50 b	99 a
7	CORNERSTONE	3	SL	0.56	lb ae/a	24	fl oz/a	3-4"BD	A					0.0 b
7	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	3-4"BD	A					
7	AMS	100	SG	5	% v/v	5	% v/v	3-4"BD	A					
8	CORVUS	2.62	SC	0.115	lb ai/a	5.6	fl oz/a	3-4"BD	A	60 b	76 bc	2.8 bc	60 b	99 a
8	CORNERSTONE	3	SL	0.56	lb ae/a	24	fl oz/a	3-4"BD	A					0.0 b
8	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	3-4"BD	A					
8	AMS	100	SG	5	% v/v	5	% v/v	3-4"BD	A					
9	CORVUS	2.62	SC	0.0614	lb ai/a	3.0	fl oz/a	3-4"BD	A	86 a	89 a	2.9 bc	84 a	99 a
9	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"BD	A					0.0 b
9	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	3-4"BD	A					
9	AMS	100	SG	5	% v/v	5	% v/v	3-4"BD	A					
10	CORVUS	2.62	SC	0.115	lb ai/a	5.6	fl oz/a	3-4"BD	A	85 a	86 a	2.8 bc	88 a	99 a
10	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"BD	A					0.0 b
10	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	3-4"BD	A					
10	AMS	100	SG	5	% v/v	5	% v/v	3-4"BD	A					
11	CORNERSTONE	3	SL	0.56	lb ae/a	24	fl oz/a	3-4"BD	A	38 c	45 e	2.1 c	30 c	99 a
11	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	3-4"BD	A					0.0 b
11	AMS	100	SG	5	% v/v	5	% v/v	3-4"BD	A					
12	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"BD	A	84 a	85 ab	2.0 c	88 a	99 a
12	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	3-4"BD	A					0.0 b
12	AMS	100	SG	5	% v/v	5	% v/v	3-4"BD	A					
13	GRAMOXONE INTEON	2	SL	0.625	lb ai/a	2.5	pt/a	3-4"BD	A	90 a	90 a	2.8 bc	91 a	99 a
13	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	3-4"BD	A					0.0 b
13	AMS	100	SG	5	% v/v	5	% v/v	3-4"BD	A					
14	NONTREATED									0 d	0 g	14.6 a	0 d	0 c
LSD (P=.05)										10.4	8.8	1.39	13.0	4.1
Replicate F										1.852	3.365	0.516	0.742	2.864
Replicate Prob(F)										0.1537	0.0281	0.6739	0.5332	0.0490
Treatment F										60.560	81.153	42.797	47.932	340.072
Treatment Prob(F)										0.0001	0.0001	0.0001	0.0001	0.0866

Means followed by same letter do not significantly differ (P=.05, LSD)

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Pest Code									LAMPU	LAMPU	LAMPU	TRZAX	TRZAX	TRZAX	
Crop Code									04-18-09	05-02-09	05-02-09	04-18-09	05-02-09	05-02-09	
Rating Date									Control	Control	Plants	Control	Control	Plants	
Rating Data Type									Percent	Percent	0.5 m2	Percent	Percent	0.5 m2	
Rating Unit															
Rating Timing															
Trt-Eval Interval									14 DA-A	28 DA-A	28 DA-A	14 DA-A	28 DA-A	28 DA-A	
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
1	CORVUS	2.62	SC	0.0614	lb ai/a	3.0	fl oz/a	3-4"BD	A	10 e	99 a	0.0 b	30 d	25 d	17.5 ab
1	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	3-4"BD	A						
1	AMS	100	SG	5	% v/v	5	% v/v	3-4"BD	A						
2	CORVUS	2.62	SC	0.115	lb ai/a	5.6	fl oz/a	3-4"BD	A	10 e	99 a	0.0 b	30 d	28 cd	16.0 b
2	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	3-4"BD	A						
2	AMS	100	SG	5	% v/v	5	% v/v	3-4"BD	A						
3	CORVUS	2.62	SC	0.0614	lb ai/a	3.0	fl oz/a	3-4"BD	A	43 cd	99 a	0.0 b	30 d	30 bc	17.5 ab
3	AATREX NINE-O	90	WG	1	lb ai/a	1.11	lb/a	3-4"BD	A						
3	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	3-4"BD	A						
3	AMS	100	SG	5	% v/v	5	% v/v	3-4"BD	A						
4	CORVUS	2.62	SC	0.115	lb ai/a	5.6	fl oz/a	3-4"BD	A	53 bc	99 a	0.0 b	38 cd	33 b	18.8 a
4	AATREX NINE-O	90	WG	1	lb ai/a	1.11	lb/a	3-4"BD	A						
4	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	3-4"BD	A						
4	AMS	100	SG	5	% v/v	5	% v/v	3-4"BD	A						
5	CORVUS	2.62	SC	0.0614	lb ai/a	3.0	fl oz/a	3-4"BD	A	53 bc	99 a	0.0 b	20 e	10 e	19.0 a
5	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	3-4"BD	A						
5	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	3-4"BD	A						
5	AMS	100	SG	5	% v/v	5	% v/v	3-4"BD	A						
6	CORVUS	2.62	SC	0.115	lb ai/a	5.6	fl oz/a	3-4"BD	A	48 cd	99 a	0.0 b	20 e	10 e	17.4 ab
6	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	3-4"BD	A						
6	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	3-4"BD	A						
6	AMS	100	SG	5	% v/v	5	% v/v	3-4"BD	A						
7	CORVUS	2.62	SC	0.0614	lb ai/a	3.0	fl oz/a	3-4"BD	A	45 cd	99 a	0.0 b	63 b	99 a	0.0 d
7	CORNERSTONE	3	SL	0.56	lb ae/a	24	fl oz/a	3-4"BD	A						
7	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	3-4"BD	A						
7	AMS	100	SG	5	% v/v	5	% v/v	3-4"BD	A						
8	CORVUS	2.62	SC	0.115	lb ai/a	5.6	fl oz/a	3-4"BD	A	63 b	99 a	0.0 b	68 b	99 a	0.0 d
8	CORNERSTONE	3	SL	0.56	lb ae/a	24	fl oz/a	3-4"BD	A						
8	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	3-4"BD	A						
8	AMS	100	SG	5	% v/v	5	% v/v	3-4"BD	A						
9	CORVUS	2.62	SC	0.0614	lb ai/a	3.0	fl oz/a	3-4"BD	A	88 a	99 a	0.0 b	30 d	28 cd	18.5 ab
9	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"BD	A						
9	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	3-4"BD	A						
9	AMS	100	SG	5	% v/v	5	% v/v	3-4"BD	A						
10	CORVUS	2.62	SC	0.115	lb ai/a	5.6	fl oz/a	3-4"BD	A	85 a	99 a	0.0 b	30 d	30 bc	17.4 ab
10	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"BD	A						
10	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	3-4"BD	A						
10	AMS	100	SG	5	% v/v	5	% v/v	3-4"BD	A						
11	CORNERSTONE	3	SL	0.56	lb ae/a	24	fl oz/a	3-4"BD	A	38 d	99 a	0.0 b	81 a	99 a	0.0 d
11	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	3-4"BD	A						
11	AMS	100	SG	5	% v/v	5	% v/v	3-4"BD	A						
12	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"BD	A	86 a	99 a	0.0 b	45 c	30 bc	17.9 ab
12	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	3-4"BD	A						
12	AMS	100	SG	5	% v/v	5	% v/v	3-4"BD	A						
13	GRAMOXONE INTEON	2	SL	0.625	lb ai/a	2.5	pt/a	3-4"BD	A	90 a	99 a	0.0 b	90 a	96 a	4.1 c
13	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	3-4"BD	A						
13	AMS	100	SG	5	% v/v	5	% v/v	3-4"BD	A						
14	NONTREATED									0 e	0 b	0.1 a	0 f	0 f	17.6 ab
LSD (P=.05)										12.4	0.0	0.10	9.7	3.7	2.62
Replicate F										0.669	0.000	1.000	1.070	3.382	1.516
Replicate Prob(F)										0.5764	1.0000	0.4031	0.3731	0.0276	0.2256
Treatment F										47.522	0.000	1.000	56.004	811.459	74.975
Treatment Prob(F)										0.0001	1.0000	0.4697	0.0001	0.0001	0.0001

Means followed by same letter do not significantly differ (P=.05, LSD)

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Location: Agronomy Res. Center

Trial Comments

1. Protocol: SIU(DT)/Bayer.
2. Ratings: WC at 14 and 28 DAT; Grass density (live plants) at 28 DAT.
3. Target annual bluegrass and wheat.
4. Plants 0.5 m² = Plants per 0.5 square meter.
By 5-2-09, LAMPU in the nontreated plots was senescing naturally.
5. Not harvested (non-crop).