Southern Illinois University

Low Rates of Clethodim for Control of a Failed Corn Stand.

Project Code: 06-4-W60 Location: Belleville Research Center
Investigator: Bryan Young

Investigator: Bryan Young, Associate Professor, Southern Illinois University

City State Zip Country: Belleville IL 62221 USA
Trial Status: Final **Updated:** 12-4-06

Objective:
Evaluate the use of clethodim as a POST to control RR2 corn.

Crop 1: ZEAMX corn, field **Variety:** 33K44
Planting Method: Seeded **Planting Date:** 4-13-06
Rate: 28000 S/A **Depth:** 1.5 IN
Row Spacing: 30 IN

Plot Width, Unit: 10 FT **Plot Length, Unit:** 35 FT **Reps:** 4
Tillage Type: Reduced-Till **Study Design:** Randomized complete block
Previous Crop, Year: GLXMA, 2005
Field Prep./Maintenance: N 150 LB/A, P2O5 50 LB/A, K2O 150 LB/A

Soil Name: Weir **% OM:** 1.6 **pH:** 6 **CEC:** 7
Texture: Silt loam **Fert. Level:** P1: 85 LB/A, K: 323 LB/A

APPLICATION DESCRIPTION

	A	B
Application Date:	5-3-06	5-22-06
Time of Day:	15:00	16:30
Application Method:	Spray	Spray
Application Timing:	V1-2	V4-5
Applic. Placement:	BROFOL	BROFOL
Air Temp., Unit:	76 F	76 F
% Relative Humidity:	94	38
Wind Velocity, Unit:	3-5 MPH	1-2 MPH
Soil Moisture:	ABONOR	NORMAL

CROP STAGE AT EACH APPLICATION

	A	B
Crop 1 Code, Stage:	ZEAMX V2	ZEAMX V5
Height, Unit:	3-5 IN	10-12 IN

APPLICATION EQUIPMENT

	A	B
Appl. Equipment:	CO2 sprayer	CO2 sprayer
Operating Pressure:	40 PSI	40 PSI
Nozzle Type:	Flat fan	Flat fan
Nozzle Size:	8002	8002
Boom Length, Unit:	7.5 FT	7.5 FT
Spray Volume, Unit:	20 GPA	20 GPA

NOTES:

12-12-06 (06-4-W60)

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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	ZEAMX Chloro Percent 7 DAT	ZEAMX Chloro Percent 14 DAT	ZEAMX Chloro Percent 21 DAT	ZEAMX Necrosis Percent 7 DAT	ZEAMX Necrosis Percent 14 DAT	ZEAMX Necrosis Percent 21 DAT
1	NO HERBICIDE							V1-2	A	0	0	0	0	0	0
1	PRIME OIL COC	100	LIQ	1.0	qt/a	1	qt/a	V1-2	A						
2	SELECT MAX	0.97	EC	0.015	lb ai/a	2.0	oz/a	V1-2	A	29	0	0	0	79	95
2	PRIME OIL COC	100	LIQ	1.0	qt/a	1	qt/a	V1-2	A						
3	SELECT MAX	0.97	EC	0.03	lb ai/a	4.0	oz/a	V1-2	A	28	0	0	0	87	97
3	PRIME OIL COC	100	LIQ	1.0	qt/a	1	qt/a	V1-2	A						
4	SELECT MAX	0.97	EC	0.06	lb ai/a	8.0	oz/a	V1-2	A	33	0		0	90	100
4	PRIME OIL COC	100	LIQ	1.0	qt/a	1	qt/a	V1-2	A						
5	NO HERBICIDE							V4-5	B	10	5	0	0	0	0
5	PRIME OIL COC	100	LIQ	1.0	qt/a	1	qt/a	V4-5	B						
6	SELECT MAX	0.97	EC	0.015	lb ai/a	2.0	oz/a	V4-5	B	45	68	41	4	13	14
6	PRIME OIL COC	100	LIQ	1.0	qt/a	1	qt/a	V4-5	B						
7	SELECT MAX	0.97	EC	0.03	lb ai/a	4.0	oz/a	V4-5	B	63	88	9	9	31	94
7	PRIME OIL COC	100	LIQ	1.0	qt/a	1	qt/a	V4-5	B						
8	SELECT MAX	0.97	EC	0.06	lb ai/a	8.0	oz/a	V4-5	B	91	90		78	98	100
8	PRIME OIL COC	100	LIQ	1.0	qt/a	1	qt/a	V4-5	B						
LSD (P=.05)										4.8	4.8	3.1	7.6	17.4	3.0
Replicate F										6.014	0.214	2.000	0.708	0.859	0.178
Replicate Prob(F)										0.0040	0.8857	0.1573	0.5580	0.4774	0.9098
Treatment F										320.916	693.943	261.400	109.685	52.626	2201.779
Treatment Prob(F)										0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

Trial Comments

1. Protocol: Monsanto.
2. Ratings: Rate chlorosis and necrosis at 7, 14, + 21 DAT.
3. Wait 5-7 days after frost or artificial damage to make POST treatments.
4. Artificial damage: mower over top to simulate hail or treating with CO2 or fetilizer to simulate frost damage.
   (Artificial damage was 32% N applied at 20 GPA on 4-26-06.)
5. Collect soil and air temperature at planting and at POST.
6. % chlorosis - evaluate the plants that are not dead. Evaluate as a percent of the original stand.
   % necrosis - % dead plants as compared to stand at treatment date. Evaluate by counting plants and entering percentages.
   When you complete the two evaluations, the number should reflect the % chlorotic of the original and the % dead of the original.
7. Chloro = Chlorosis. DAT = Days after treatment.
   Ratings at 7 DAT were taken on 5-10-06 and 5-29-06 for the V1-2 and V4-5 applications, respectively.
   Ratings at 14 DAT were taken on 5-17-06 and 6-5-06 for the V1-2 and V4-5 applications, respectively.
   Ratings at 21 DAT were taken on 5-24-06 and 6-12-06 for the V1-2 and V4-5 applications, respectively.
8. Blanket PRE application of Degree Xtra at 3 qt/A to entire study area (10 ft boom) on 4-13-06.
9. Not harvested.