

Ohio State University  
Horticulture and Crop Science

DETERMINE THE EFFICACY & SELECTIVITY OF CHA 023 AND CHA 024 WHEN APPLIED POST

Title No. 2: HZEAMXRIM0901

Trial ID: 09POC1                      Protocol ID: 09POC1  
Location: Western Branch F-8 M      Study Director: Anthony F. Dobbels  
Project ID:                              Investigator: Dr. Mark M. Loux  
Sponsor Contact: James Barrentine, Cheminova

**Crop Description**

**Crop 1:** ZEAMX    Zea mays                      Corn  
                  **Variety:** Dekalb 61-19                      **Description:** RR  
                  **BBCH Scale:** BCOR                      **Planting Date:** Apr-26-2009  
                  **Planting Method:** SEEDED    seeded                      **Rate, Unit:** 32097 S/A  
                  **Depth, Unit:** 1.5    IN  
**Row Spacing, Unit:** 30    IN  
                  **Seed Bed:** SMOOTH    smooth  
                  **Soil Moisture:** NORMAL    normal

**Pest Description**

- Pest 1 Type:** W    **Code:** SETFA    *Setaria faberi*  
**Common Name:** Giant foxtail
- Pest 2 Type:** W    **Code:** CHEAL    *Chenopodium album*  
**Common Name:** Common lambsquarters
- Pest 3 Type:** W    **Code:** POLPY    *Polygonum pensylvanicum*  
**Common Name:** Pennsylvania smartweed
- Pest 4 Type:** W    **Code:** AMBTR    *Ambrosia trifida*  
**Common Name:** Giant ragweed
- Pest 5 Type:** W    **Code:** AMBEL    *Ambrosia artemisiifolia*  
**Common Name:** Common ragweed
- Pest 6 Type:** W    **Code:** AMARE    *Amaranthus retroflexus*  
**Common Name:** Redroot pigweed
- Pest 7 Type:** W    **Code:** DATST    *Datura stramonium*  
**Common Name:** Jimsonweed
- Pest 8 Type:** W    **Code:** ABUTH    *Abutilon theophrasti*  
**Common Name:** Velvetleaf
- Pest 9 Type:** W    **Code:** HIBTR    *Hibiscus trionum*  
**Common Name:** Venice mallow

**Site and Design**

**Plot Width, Unit:** 6.67 FT                      **Site Type:** FIELD    field  
**Plot Length, Unit:** 30 FT                      **Experimental Unit:** 1    PLOT plot  
**Plot Area, Unit:** 200.1 FT2                      **Tillage Type:** CONTIL    conventional-till  
**Replications:** 3                      **Study Design:** RACOB    Randomized Complete Block (RCB)  
**Untreated Arrangement:** INCLUDED    single control randomized in each block

**Application Description**

**A**  
**Application Date:** May-30-2009  
**Time of Day:** 8:00 AM  
**Application Method:** SPRAY  
**Application Timing:** POST  
**Application Placement:** BROFOL  
**Air Temperature, Unit:** 62 F  
**% Relative Humidity:** 60  
**Wind Velocity, Unit:** 2 MPH  
**Wind Direction:** E  
**Dew Presence (Y/N):** N no  
**Soil Temperature, Unit:** 62 F  
**Soil Moisture:** DRY  
**% Cloud Cover:** 2

**Crop Stage At Each Application****A**

**Crop 1 Code, BBCH Scale:** ZEAMX BCOR  
**Stage Scale Used:** BBCH  
**Stage Majority, Percent:** 13 100  
**Height, Unit:** 6 IN  
**Height Minimum, Maximum:** 5 6

**Pest Stage At Each Application****A**

**Pest 1 Code, Type, Scale:** SETFA W  
**Stage Majority, Percent:** 14 100  
**Height, Unit:** 9 in  
**Height Minimum, Maximum:** 7 9  
**Pest 2 Code, Type, Scale:** CHEAL W  
**Stage Majority, Percent:** 14 100  
**Height, Unit:** 4 in  
**Height Minimum, Maximum:** 2 4  
**Pest 3 Code, Type, Scale:** POLPY W  
**Stage Majority, Percent:** 13 100  
**Height, Unit:** 5 in  
**Height Minimum, Maximum:** 3 5  
**Pest 4 Code, Type, Scale:** AMBTR W  
**Stage Majority, Percent:** 19 100  
**Height, Unit:** 10 in  
**Height Minimum, Maximum:** 7 10  
**Pest 5 Code, Type, Scale:** AMBEL W  
**Stage Majority, Percent:** 19 100  
**Height, Unit:** 4 in  
**Height Minimum, Maximum:** 2 4  
**Pest 6 Code, Type, Scale:** AMARE W  
**Stage Majority, Percent:** 16 100  
**Height, Unit:** 5 in  
**Height Minimum, Maximum:** 4 5  
**Pest 7 Code, Type, Scale:** DATST W  
**Stage Majority, Percent:** 13 100  
**Height, Unit:** 4 in  
**Height Minimum, Maximum:** 3 4  
**Pest 8 Code, Type, Scale:** ABUTH W  
**Stage Majority, Percent:** 13 100  
**Height, Unit:** 4 in  
**Height Minimum, Maximum:** 3 4  
**Pest 9 Code, Type, Scale:** HIBTR W  
**Stage Majority, Percent:** 14 100  
**Height, Unit:** 3 in  
**Height Minimum, Maximum:** 2 3

**Application Equipment****A**

**Appl. Equipment:** BACKPACK  
**Equipment Type:** SPRBAC  
**Operating Pressure, Unit:** 53 PSI  
**Nozzle Type:** TEEJET DG  
**Nozzle Size:** 11002  
**Nozzle Spacing, Unit:** 18 IN  
**Boom Length, Unit:** 10 FT  
**Boom Height, Unit:** 20 IN  
**Ground Speed, Unit:** 3 MPH  
**Carrier:** WATER  
**Spray Volume, Unit:** 20 GPA  
**Mix Size, Unit:** 3 L  
**Propellant:** CO2

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Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Form Unit	Rate Rate	Other Unit	Other Unit	Growth Stage	Appl Code	Plot No.			Notes
											Rep. 1	2	3	
1	CHA-023	25	WDG	0.0078	lb ai/a	0.5	oz /a		2-4 "	WE A	101	208	306	
	NIS	100	SL	0.25	% v/v	0.25	% v/v		2-4 "	WE A				
	N-PAK AMS	100	L	3	% v/v	3	% v/v		2-4 "	WE A				
2	CHA-023	25	WDG	0.0156	lb ai/a	1	oz/a		2-4 "	WE A	102	210	301	
	NIS	100	SL	0.25	% v/v	0.25	% v/v		2-4 "	WE A				
	N-PAK AMS	100	L	3	% v/v	3	% v/v		2-4 "	WE A				
3	CHA-023	25	WDG	0.0313	lb ai/a	2	oz/a		2-4 "	WE A	103	209	310	
	NIS	100	SL	0.25	% v/v	0.25	% v/v		2-4 "	WE A				
	N-PAK AMS	100	L	3	% v/v	3	% v/v		2-4 "	WE A				
4	RESOLVE 0.5 oz	25	SG	0.0078	lb ai/a	0.5	oz/a		2-4 "	WE A	104	203	304	
	Rimsulfuron	25	SG	0.125	oz ai/a	0.5	oz/a		2-4 "	WE A				
	Isoxadifen-Ethyl	50	WG	0.0625	oz ai/a	0.125	oz/a		2-4 "	WE A				
	NIS	100	SL	0.25	% v/v	0.25	% v/v		2-4 "	WE A				
	N-PAK AMS	100	L	3	% v/v	3	% v/v		2-4 "	WE A				
5	RESOLVE	25	SG	0.0156	lb ai/a	1	oz/a		2-4 "	WE A	105	206	309	
	Rimsulfuron	25	SG	0.25	oz ai/a	1	oz/a		2-4 "	WE A				
	Isoxadifen-Ethyl	50	WG	0.125	oz ai/a	0.25	oz/a		2-4 "	WE A				
	NIS	100	SL	0.25	% v/v	0.25	% v/v		2-4 "	WE A				
	N-PAK AMS	100	L	3	% v/v	3	% v/v		2-4 "	WE A				
6	RESOLVE	25	SG	0.0313	lb ai/a	2	oz/a		2-4 "	WE A	106	204	303	
	Rimsulfuron	25	SG	0.5	oz ai/a	2	oz/a		2-4 "	WE A				
	Isoxadifen-Ethyl	50	WG	0.25	oz ai/a	0.5	oz/a		2-4 "	WE A				
	NIS	100	SL	0.25	% v/v	0.25	% v/v		2-4 "	WE A				
	N-PAK AMS	100	L	3	% v/v	3	% v/v		2-4 "	WE A				
7	CHA-024	2	OD	0.018	lb ai/a	1.15	fl oz/a		2-4 "	WE A	107	201	307	
	NIS	100	SL	0.25	% v/v	0.25	% v/v		2-4 "	WE A				
	N-PAK AMS	100	L	3	% v/v	3	% v/v		2-4 "	WE A				
8	CHA-024	2	OD	0.035	lb ai/a	2.24	fl oz/a		2-4 "	WE A	108	202	305	
	NIS	100	SL	0.25	% v/v	0.25	% v/v		2-4 "	WE A				
	N-PAK AMS	100	L	3	% v/v	3	% v/v		2-4 "	WE A				
9	STEADFAST	75	WG	0.018	lb ai/a	0.384	oz/a		2-4 "	WE A	109	207	308	
	NIS	100	SL	0.25	% v/v	0.25	% v/v		2-4 "	WE A				
	N-PAK AMS	100	L	3	% v/v	3	% v/v		2-4 "	WE A				
10	STEADFAST	75	WG	0.035	lb ai/a	0.75	oz/a		2-4 "	WE A	110	205	302	
	NIS	100	SL	0.25	% v/v	0.25	% v/v		2-4 "	WE A				
	N-PAK AMS	100	L	3	% v/v	3	% v/v		2-4 "	WE A				

Sort Order: Replicate 1