

Oregon State University

Seedling Carrot Injury Following Spring Wheat COARC, Dogwood Ln, Madras, Jefferson County, Oregon, 2009-2010

Trial ID: wheat-carrot_2nd year Protocol ID: wheat-carrot rotation
Location: COARC-Madras Study Director: Richard Affeldt

General Trial Information

Study Director: Richard Affeldt
Affiliation: Oregon State University, Central Oregon Ag Research Ctr
Postal Code: 97741 **E-mail:** rich.affeldt@oregonstate.edu
Investigator: Marvin Butler

Objectives:

1. Investigate whether or not wheat herbicides like Harmony Extra[®] are carrying over to injure seed carrot
2. Investigate if allelopathy from wheat straw plays a role in seed carrot injury.

Crop Description

Crop 1: TRZAS Triticum aestivum (spring) Spring wheat
Variety: Yecora rojo
BBCH Scale: BCER **Planting Date:** 4/22/2009

Site and Design

Plot Width, Unit: 10 FT
Plot Length, Unit: 25 FT
Replications: 4 **Study Design:** Randomized Complete Block

Application Description

	A
Application Date:	5/27/2009
Time of Day:	1:30
Application Method:	spray
Application Placement:	broadcast
Applied By:	Affeldt, R.
Air Temperature, Unit:	72 F
% Relative Humidity:	23
Wind Velocity, Unit:	5 MPH
Wind Direction:	NW
Dew Presence (Y/N):	N
Soil Temperature, Unit:	65 F
Soil Moisture:	dry
% Cloud Cover:	0
Next Rain Occurred On:	5/28/2009

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	TRZAS BCER
Stage Scale Used:	DESC
Stage Majority, Percent:	3-4 tilr 70
Stage Minimum, Percent:	2 tilr 15
Stage Maximum, Percent:	5 tilr 15

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Application Equipment

	A
Appl. Equipment:	BACKPACK
Operating Pressure, Unit:	40 PSI
Nozzle Type:	FLAT FAN
Nozzle Size:	AM 11002
Nozzle Spacing, Unit:	20 IN
Boom Length, Unit:	120 IN
Ground Speed, Unit:	3 MPH
Carrier:	WATER
Spray Volume, Unit:	20 GPA
Propellant:	CO2

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Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Growth Stage	Appl Code	Appl Description	Plot No. By Rep				Notes
									1	2	3	4	
1	Fallow								101	214	301	408	
2	Fallow Harmony GT R-11	75	DF L	0.267	oz wt/a 2 pt/100 gal	Pstemer	A A	as per Harmony Extra	102	201	310	405	
3	Fallow Express R-11	75	DF L	0.25	oz wt/a 2 pt/100 gal	Pstemer	A A	as per Express	103	206	312	414	
4	Fallow Harmony Extra R-11	75	DF L	0.4	oz wt/a 2 pt/100 gal	Pstemer	A A	as per Harmony Extra	104	213	303	406	
5	Fallow Huskie R-11	2.1	EC L	11	fl oz/a 2 pt/100 gal	Pstemer	A A		105	215	309	404	
6	Spring wheat Burn							prior to carrots	106	202	311	403	
7	Spring wheat Harmony GT R-11 Burn	75	DF L	0.267	oz wt/a 2 pt/100 gal	Pstemer	A A	as per Harmony Extra prior to carrots	107	209	315	410	
8	Spring wheat Express R-11 Burn	75	DF L	0.25	oz wt/a 2 pt/100 gal	Pstemer	A A	as per Express prior to carrots	108	211	302	413	
9	Spring wheat Harmony Extra R-11 Burn	75	DF L	0.4	oz wt/a 2 pt/100 gal	Pstemer	A A	as per Harmony Extra prior to carrots	109	212	304	402	
10	Spring wheat Huskie R-11 Burn	2.1	EC L	11	fl oz/a 2 pt/100 gal	Pstemer	A A		110	203	314	412	
11	Spring wheat No-till							prior to carrots	111	208	307	401	
12	Spring wheat Harmony GT R-11 No-till	75	DF L	0.267	oz wt/a 2 pt/100 gal	Pstemer	A A	as per Harmony Extra prior to carrots	112	207	313	407	
13	Spring wheat Express R-11 No-till	75	DF L	0.25	oz wt/a 2 pt/100 gal	Pstemer	A A	as per Express prior to carrots	113	204	308	411	
14	Spring wheat Harmony Extra R-11 No-till	75	DF L	0.4	oz wt/a 2 pt/100 gal	Pstemer	A A	as per Harmony Extra prior to carrots	114	205	306	415	
15	Spring wheat Huskie R-11 No-till	2.1	EC L	11	fl oz/a 2 pt/100 gal	Pstemer	A A		115	210	305	409	

Sort Order: Replicate 1

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Trial Comments

7/16/09

Finished watering spring wheat

7/20/09

Collected soil samples for nematodes

7/21/09

Collected root samples for nematodes, 5 to 6 plants per rep.