Entomology Appendix A.: Agronomic and Rainfall Information for Research Sites

Location:	**St. Thomas, ND (Pembina County) – Pete Carson Farm**	
Sugarbeet Variety:	VDH 46519	Planting-time & postemergence granules & liquids study Counter formulations Seed Treatment Studies I and II Replanting test Thimet timing and rate trial Postemergence liquids test
	Hilleshog	Experimental Seed Treatment Study II
Plot Size:	Six 35-ft long rows, 4 center rows treated	
Experimental Design:	Randomized complete block, 4 replicates	
Soil Name:	Neche Silty Clay Loam	
Soil Test:	Organic Matter = 3.1%; pH = 8.3	
Previous Crop:	Dry edible beans - 2007	
Soil Preparation:	Field cultivator	
Herbicide:	Betamix (8 fl oz/A) + UpBeet (1/8 oz/A) + Stinger (1.3 fl oz/A) + MSO (1.5%), June 3, 2008 Betamix (12 fl oz/A) + UpBeet (1/8 oz/A) + Stinger (1.3 fl oz/A) + Select Max (3 fl oz/A) + MSO (1.5%), June 21, 2008 Betanex (12 fl oz/A) + UpBeet (1/4 oz/A) + Stinger (1.3 fl oz/A) + Select Max (3 fl oz/A) + MSO (1.5%), June 30, 2008 Betamix Ulta (9 fl oz/A) + UpBeet (1/4 oz/A) + Select Max (3 fl oz/A) + MSO (1.5%) + Outlook (21 fl oz/A), July 9, 2008	
Planting Depth:	1.25"	
Postemergence Trts.:	June 16, 2008	Thimet; Thimet timing and rate trial (8-day pre-peak) Thimet & Counter; Seed Treatment Study I (8-day pre-peak)
	June 19, 2008	Thimet; Thimet timing and rate trial (5-day pre-peak)
	June 20, 2008	Lorsban 4E; Thimet timing and rate trial (4-day pre-peak) Lorsban 4E, Vydate, & GF-2153; Post liquids test (4-day pre-peak) Lorsban 4E; Replanting test (4-day pre-peak) Lorsban 4E & Vydate; Seed Treatment Study I study (4 day pre-peak) Lorsban 75WG; Planting-time & postemergence granules & liquids study (4-day pre-peak)
	June 26, 2008	Lorsban 4E & Vydate; Postemergence liquids test (2-day post-peak)

Rainfall:	May 19, 2008	0.05"
	May 24, 2008	0.14"
	May 25, 2008	0.09"
	Total/May	**0.28"**
	June 03, 2008	0.08"
	June 06, 2008	1.52"
	June 08, 2008	0.16"
	June 09, 2008	0.76"
	June 11, 2008	0.91"
	June 12, 2008	0.12"
	June 24, 2008	0.19"
	June 25, 2008	0.07"
	June 26, 2008	0.66"
	June 28, 2008	0.42"
	Total/June	**4.89"**
	July 07, 2008	1.64"
	July 11, 2008	0.05"
	July 23, 2008	0.26"
	July 28, 2008	0.60"
	Total/July	**2.55"**
	Total/August	**4.05"**
	Total/September	**1.17"**

Harvest Sample Size: 2 center rows x 35' long - 70' total

Location:	**Prosper, ND (Cass County) – NDSU Experiment Farm**	
Sugarbeet Variety:	VDH 46519	
Plot Size:	Six rows 35-ft long, 4 center rows treated	
Experimental Design:	Randomized complete block, 4 replicates	
Soil Name:	Clay Loam	
Soil Test:	Organic Matter = 4.4%; pH = 6.9	
Previous Crop:	Wheat - 2007	
Soil Preparation:	Field cultivator, rolling basket on back	
Herbicide:	Betamix (8.0 fl oz/A) + UpBeet (1/8 oz/A) + Stinger (1.3 fl oz/A) + Select Max (3 fl oz/A) + MSO (1.5%), June 18, 2008	
	Betamix (12 fl oz/A) + UpBeet (1/8 oz/A) + Stinger (1.3 fl oz/A) + Select Max (6 fl oz/A) + MSO (1.5%), June 25, 2008	
Planting Depth:	1.25"	
Rainfall:	May 24, 2008	0.21"
	May 29, 2008	0.74"
	May 30, 2008	0.27"
	Total/May	**1.22"**
	June 03, 2008	1.14"
	June 05, 2008	0.64"
	June 06, 2008	1.09"
	June 08, 2008	0.13"
	June 09, 2008	0.15"
	June 11, 2008	1.82"
	June 12, 2008	0.30"
	June 14, 2008	0.15"
	June 26, 2008	0.29"
	June 27, 2008	0.48"
	June 28, 2008	0.25"
	Total/June	**6.44"**
	July 07, 2008	1.14"
	July 09, 2008	0.23"
	July 10, 2008	0.88"
	July 16, 2008	0.41"
	July 23, 2008	0.28"
	Total/July	**2.94"**
	Total/August	**3.03"**
	Total/September	**7.10"**
Harvest Sample Size:	2 rows x 35' long - 70' total & 2 center rows x 35' long - 70' total	

Entomology Appendix B. 0 to 9 Scale for Rating Sugarbeet Root Maggot Feeding Injury

Treatment performance in preventing sugarbeet root maggot feeding injury was quantified for all root maggot control trials by rating beets on the 0 to 9 root injury rating scale of Campbell et al. (2000). Criteria for respective points on the scale are as follows:

0 = no scars

1 = 1 to 4 small (pin head size) scars

2 = 5 to 10 small scars

3 = 3 large scars or scattered small scars

4 = few large scars and /of numerous small scars

5 = several large scars and/or heavy feeding on laterals

6 = up to 1/4 root scarred

7 = 1/4 to 1/2 of root blackened by scars

8 = 1/2 to 3/4 root blackened by scars

9 = more than 3/4 of root area blackened