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Seed Treatment Division



Seed Treatment

Oh Sh#*!
Moments

Worth 1000.com



Seed Treatment





Worth 1000.com



Seed Treatment



Seed Treatment



Seed Treatment





Seed Treatment

Wireworm Damage on Beans

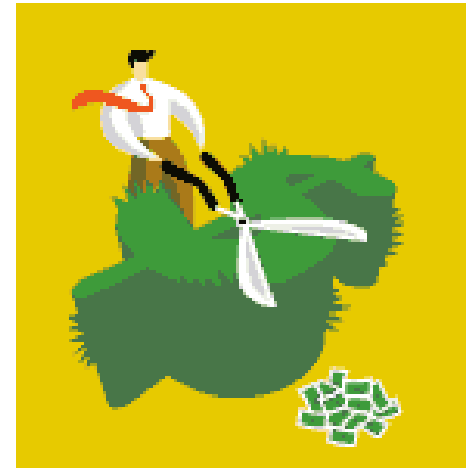


Cruiser
Seed Treatment

Untreated

The Most Common Yield Robbing Seedling Diseases of Beans

- Pythium Spp.
- Rhizoctonia
- Fusarium Spp.
- They Are All Root Pruners



Seed Treatment

Pythium Spp.



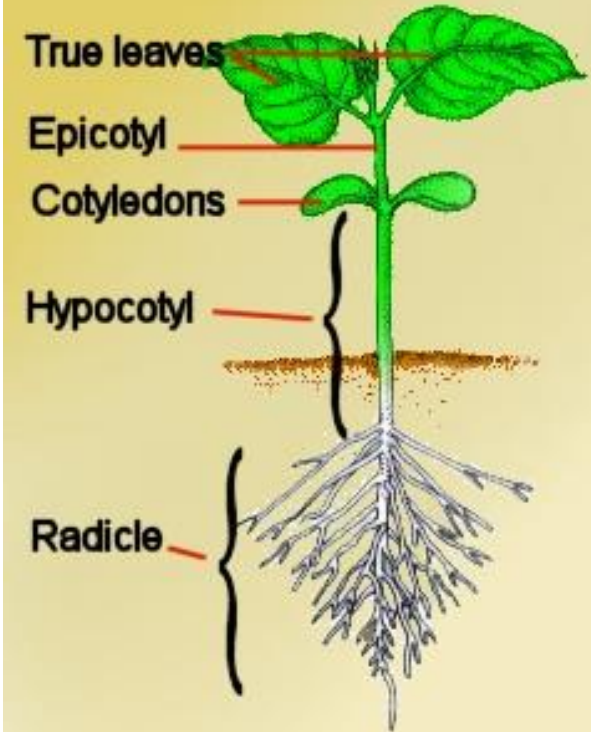
Seed Treatment

Rhizoctonia Solani



Seed Treatment

Fusarium Spp.



Seed Treatment

5359560

2013 Dry and Garden Bean Research

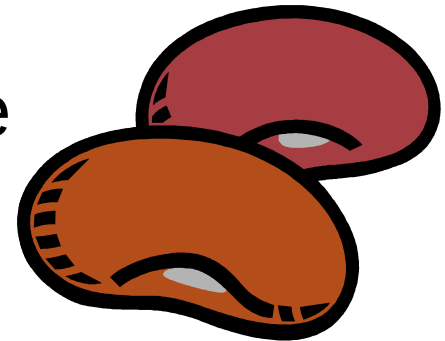
- Miller Research, Rupert ID
 - Seed Treatment - Bill Z Pinto
 - Seed Treatment – **HyStyle Garden Bean – IBC**
 - Biostimulant – Othello Pinto
- Jemmett Consulting, Parma, ID
 - Seed Treatment – ~~T9905 Navy Bean~~
- NDSU, Perham, MN
 - Seed Treatment – Montcalm DRK
- Central Lakes College, Stanton, MN
 - Seed Treatment – ~~Montcalm DRK~~
 - Fusarium!! Rhizoctonia Pythium



Seed Treatment

2013 Dry and Garden Bean Research Highlights

- Vibrance
- Mertect
- Rancona
- EverGol Energy
- Rizolex
- AP2
- ST-Methyl 540FS
- Captan 4 Flowable
- Thiram
- Vitavax 34



Seed Treatment



Trial Site is in Fusarium Hotbed
Typical Rotation: Potatoes, Rye
(cover crop), Beans, Cereal Crop
or Potatoes (2-3yr Rotation)

Planted June 3, 2013

Juan Osorno
Dry Bean Breeder



Julie Pasche
Pathologist



Seed Treatment



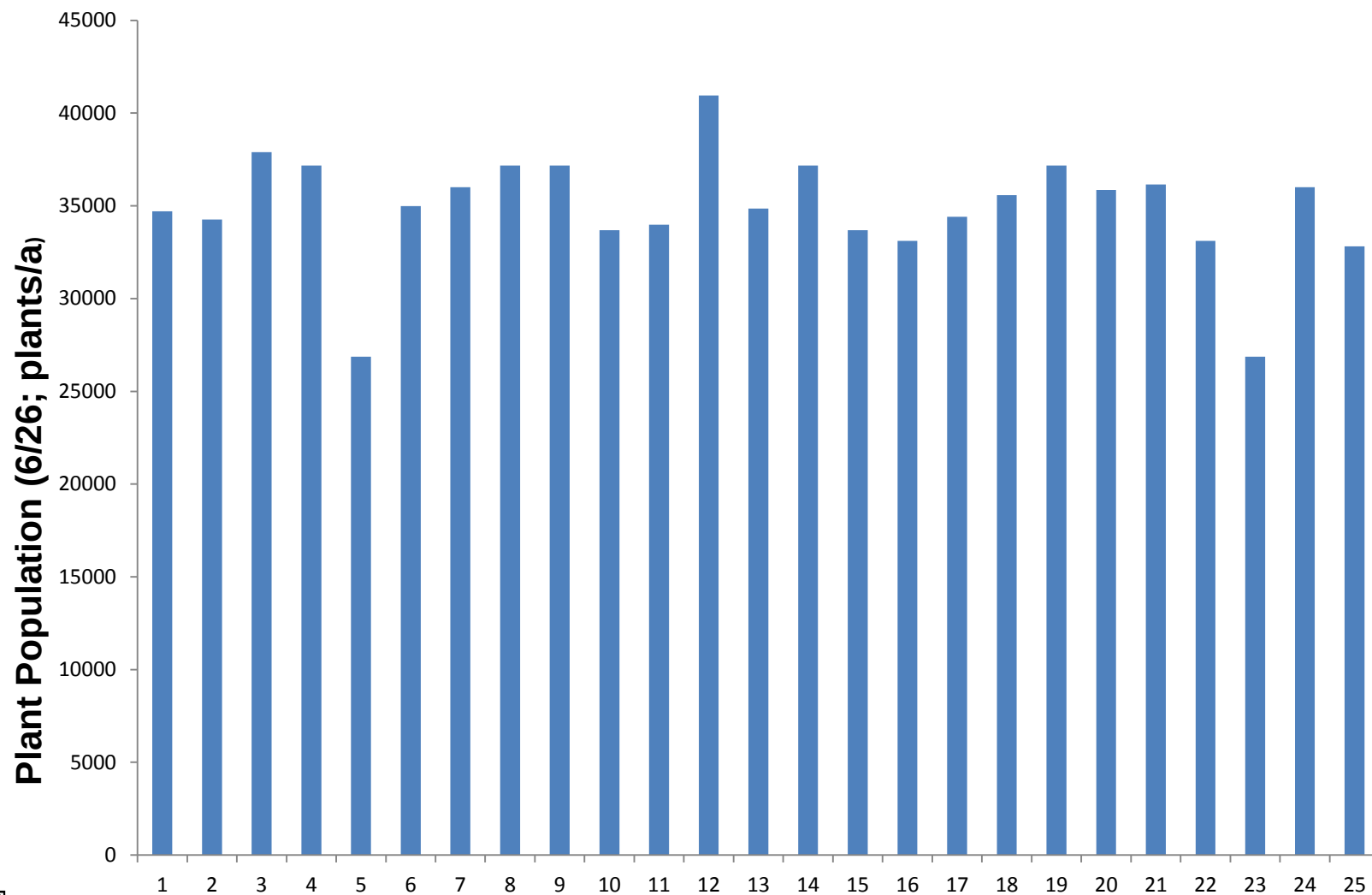
NDSU - 25 Treatments Targeting Fusarium, Rhizoctonia, and Pythium Control Perham, MN 2013 Montcalm DRK

2013 McGregor Co. Product Development Trial - Dry Bean										NDSU - Perham, MN										Montcalm DRK										
Treatment			Rate			Rate			Rate			Rate			Rate			Rate			Rate			Rate			Rate			
Number	Company	Product	oz/cwt	+	Product	oz/cwt	+	Product	oz/cwt	+	Product	oz/cwt	+	Product	oz/cwt	+	Product	oz/cwt	+	Product	oz/cwt	+	Product	oz/cwt	+	Product	oz/cwt	+	Product	oz/cwt
1	McGregor	VTC																												
2	MCG 1	Aaron XL	0.320	+	Maxim 4FS	0.160	+	Rancona 3.8FS	0.085	+	Vibrance	0.160	+	Cruiser SFS	1.280	+	Thiabendazole 4L ST	2.000	+	Captan 4F	2.500	+	Thiram 480 DP	2.000						
3	MCG 2	Aaron XL	0.320	+	Maxim 4FS	0.160	+	Rancona 3.8FS	0.085	+	Vibrance	0.160	+	Cruiser SFS	1.280	+	Thiabendazole 4L ST	2.000	+	Captan 4F	2.500	+	Thiram 480 DP	2.000	Heads Up	55gm				
4	MCG 3	Aaron XL	0.320	+	Maxim 4FS	0.160	+	Rancona 3.8FS	0.085	+	Vibrance	0.160	+	Cruiser SFS	1.280	+	ST Methyl 540 FS	0.280	+	Captan 4F	2.500	+	Thiram 480 DP	2.000						
5	MCG 4	Evergol Energy	1.000	+	Alleience	0.550	+	Thiabendazole 4L ST	2.000	+	Captan 4F	2.500	+	Thiram 480 DP	2.000	+	Attendant 480	4.000												
6	Albaugh	AgriStar #1																												
7	Albaugh	AgriStar #2																												
8	Albaugh	AgriStar #3																												
9	Albaugh	AgriStar #4																												
10	Albaugh	AgriStar #5																												
11	Albaugh	AgriStar #6																												
12	Bayer	Evergol Energy	1.000	+	Villegence	0.550	+	Proline	4.7ml		Gaucha 500	2.500																		
13	Chemtura	Rancona 3.8FS	0.085	+	Vitavax 34	3.000	+	Thiram 480 DP	2.000	+	Belmont 2.7FS	0.750	+	Attendant 480	2.000															
14	Heads Up	Heads Up	0.560																											
15	Heads Up	Heads Up	0.560	+	Evergol Energy	1.000	+	Maxim 4FS	0.080	+	Stamina	0.400	+	Merect	1.500	+	Cruiser SFS	1.280												
16	Heads Up	Heads Up	0.560	+	Evergol Energy	1.000	+	Maxim 4FS	0.160	+	Stamina	0.800	+	Merect	2.000	+	Cruiser SFS	1.280												
17	Nufarm	Soltrato 480FS	0.080	+	Sebring 318FS	0.375																								
18	Nufarm	Soltrato 480FS	0.080	+	Sebring 318FS	0.375	+	ST-Methyl 540FS	0.280																					
19	Nufarm	Stamina	0.400	+	Sebring 318FS	0.375																								
20	Nufarm	Stamina	0.400	+	Sebring 318FS	0.375	+	ST-Methyl 540FS	0.280																					
21	Nufarm	Sigmet 480FS	2.000		Sebring 318FS	0.375	+	ST-Methyl 540FS	0.280																					
22	Syngenta	Aaron XL	0.320	+	Maxim 4FS	0.160	+	Vibrance	0.160	+	Cruiser SFS	1.280	+	Rancona 3.8FS	0.085															
23	Syngenta	Aaron XL	0.320	+	Maxim 4FS	0.160	+	Vibrance	0.160	+	Cruiser SFS	1.280	+	Merect 340F	1.56															
24	Valent	Riolex	0.300	+	AP2	0.300	+	Sebring 318FS	0.100																					
25	Valent	Riolex	0.300	+	AP2	0.300	+	Sebring 318FS	0.100	+	Spirato 480FS	0.160																		



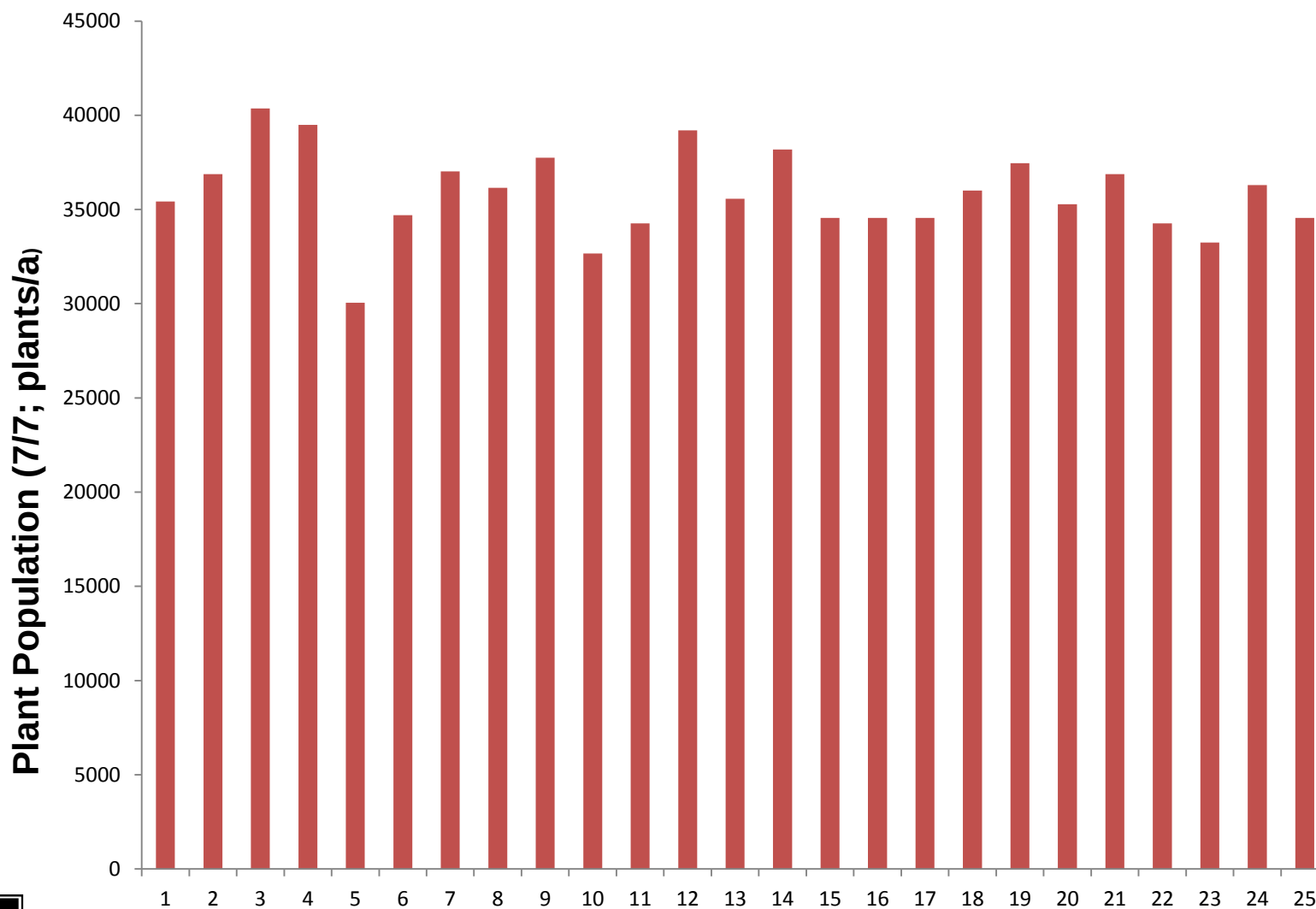
Seed Treatment

McGregor Co. Product Development Trial, Perham MN 2013



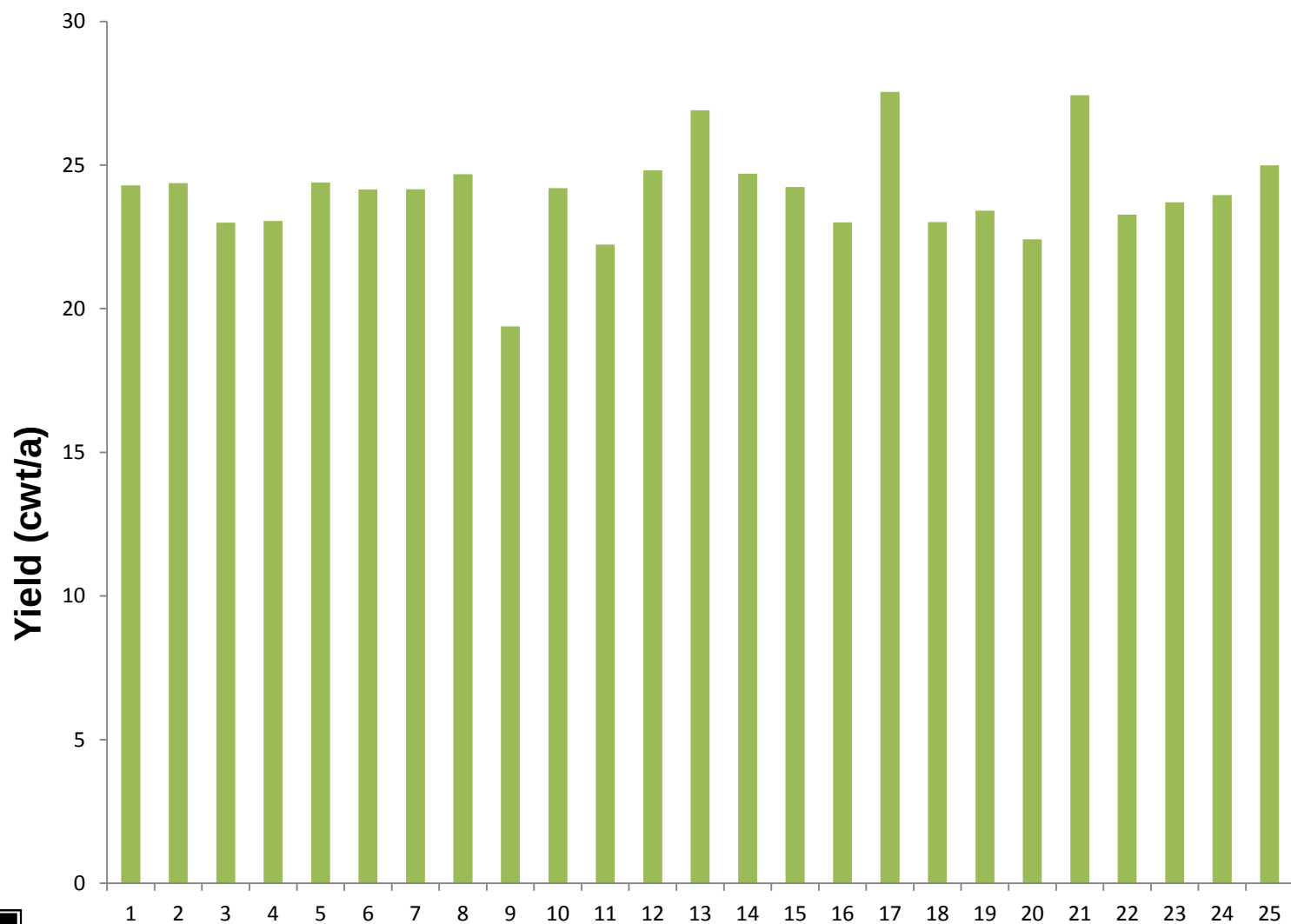
Seed Treatment

McGregor Co. Product Development Trial 2013 Perham, MN



Seed Treatment

McGregor Co. Product Development Trial 2013 Perham, MN



Seed Treatment

2013 McGregor Co. Product Development Trial, Perham, MN

Replication #1 was deleted was the analysis; $\alpha = 0.10$

Trt	Product	Rate (oz/cwt)	Plant Population* (6/26)	Plant Population* (7/7)	Yield (cwt/a)
1	Non-treated		34701.1b	35427.0 b-e	24.3a
2	Apron XL	0.32	34265.5b	36878.9 a-e	24.4a
	Maxim 4FS	0.16			
	Rancona 3.8FS	0.085			
	Vibrance	0.16			
	Cruiser 5FS	1.28			
	Thiabendazole 4L ST	2.0			
	Captan 4F	2.6			
	Thiram 480 DP	2.0			
3	Apron XL	0.32	37895.3ab	40363.6 a	23.0a
	Maxim 4FS	0.16			
	Rancona 3.8FS	0.085			
	Vibrance	0.16			
	Cruiser 5FS	1.28			
	Thiabendazole 4L ST	2.0			
	Captan 4F	2.6			
	Thiram 480 DP	2.0			
	Heads Up	.56gm			
4	Apron XL	0.32	37169.3ab	39492.4 ab	23.1a
	Maxim 4FS	0.16			
	Rancona 3.8FS	0.085			
	Vibrance	0.16			
	Cruiser 5FS	1.28			
	ST Methyl 540 FS	0.28			
	Captan 4F	2.6			
	Thiram 480 DP	2.0			



Seed Treatment

2013 McGregor Co. Product Development Trial, Perham, MN

Replication #1 was deleted was the analysis; $\alpha = 0.10$

Trt	Product	Rate (oz/cwt)	Plant Population* (6/26)	Plant Population* (7/7)	Yield (cwt/a)
5	Evergol Energy	1.0	26860.6 c	30054.9 f	24.4 a
	Allegience	0.55			
	Thiabendazole 4L ST	2.0			
	Captan 4F	2.6			
	Thiram 480 DP	2.0			
	Attendant 480	4.0			
6	Agristar #1		34991.4 b	34701.1 cde	24.1 a
7	Agristar #2		36007.8 ab	37024.1 a-d	24.2 a
8	Agristar #3		37169.3 ab	36153.0 a-e	24.7 a
9	Agristar #4		37169.3 ab	37750.1 abc	19.4 a
10	Agristar #5		33684.7 b	32668.4 ef	24.2 a
11	Agristar #6		33975.1 b	34265.5 c-f	22.2 a
12	Evergol Energy	1.0	40944.3 a	39202.0 ab	24.8 a
	Allegience	0.55			
	Proline	4.7ml			
	Gaucha 600	2.5			
13	Rancona 3.8FS	0.085	34846.2 b	35572.2 b-e	26.9 a
	Vitavax 34	3.0			
	Thiram 480 DP	2.0			
	Belmont 2.7FS	0.75			
	Attendant 480	2.0			



Seed Treatment

2013 McGregor Co. Product Development Trial, Perham, MN

Replication #1 was deleted was the analysis; $\alpha = 0.10$

Trt	Product	Rate (oz/cwt)	Plant Population* (6/26)	Plant Population* (7/7)	Yield (cwt/a)
14	Heads Up	0.56	37169.3 ab	38185.7 abc	24.7 a
15	Heads Up	0.56	33684.7 b	34555.9 cde	24.2 a
	Evergol Energy	1.0			
	Maxim 4FS	0.08			
	Stamina	0.4			
	Mertect	1.5			
	Cruiser 5FS	1.28			
16	Heads Up	0.56	33103.9 b	34555.9 cde	23.0 a
	Evergol Energy	1.0			
	Maxim 4FS	0.16			
	Stamina	0.8			
	Mertect	2.0			
	Cruiser 5FS	1.28			
17	Spirato 480FS	0.08	34410.7 b	34555.9 cde	27.5 a
	Sebring 318FS	0.375			
18	Spirato 480FS	0.08	35572.2 b	36007.8 b-e	23.0 a
	Sebring 318FS	0.375			
	ST-Methyl 540FS	0.28			
19	Stamina	0.4	37169.3 ab	37459.7 a-d	23.4 a
	Sebring 318FS	0.375			



Seed Treatment

2013 McGregor Co. Product Development Trial, Perham, MN

Replication #1 was deleted was the analysis; $\alpha = 0.10$

Trt	Product	Rate (oz/cwt)	Plant Population* (6/26)	Plant Population* (7/7)	Yield (cwt/a)
20	Stamina	0.4	35862.6ab	35281.8 b-e	22.4 a
	Sebring 318FS	0.375			
	ST-Methyl 540FS	0.28			
21	Signet 480FS	2.0	36153.0ab	36878.9 a-e	27.4 a
	Sebring 318FS	0.375			
	ST-Methyl 540FS	0.28			
22	Apron XL	0.32	33103.9b	34265.5 c-f	23.3 a
	Maxim 4FS	0.16			
	Vibrance	0.16			
	Cruiser 5FS	1.28			
	Rancona 3.8FS	0.085			
23	Apron XL	0.32	26860.6c	33249.1 def	23.7 a
	Maxim 4FS	0.16			
	Vibrance	0.16			
	Cruiser 5FS	1.28			
	Mertect 340F	1.56			
24	Rizolex	0.3	36007.8ab	36298.2 a-e	24.0 a
	AP2	0.3			
	Sebring 318FS	0.1			
25	Rizolex	0.3	32813.5b	34555.9 cde	25.0 a
	AP2	0.3			
	Sebring 318FS	0.1			
	Spirato 480FS	0.16			

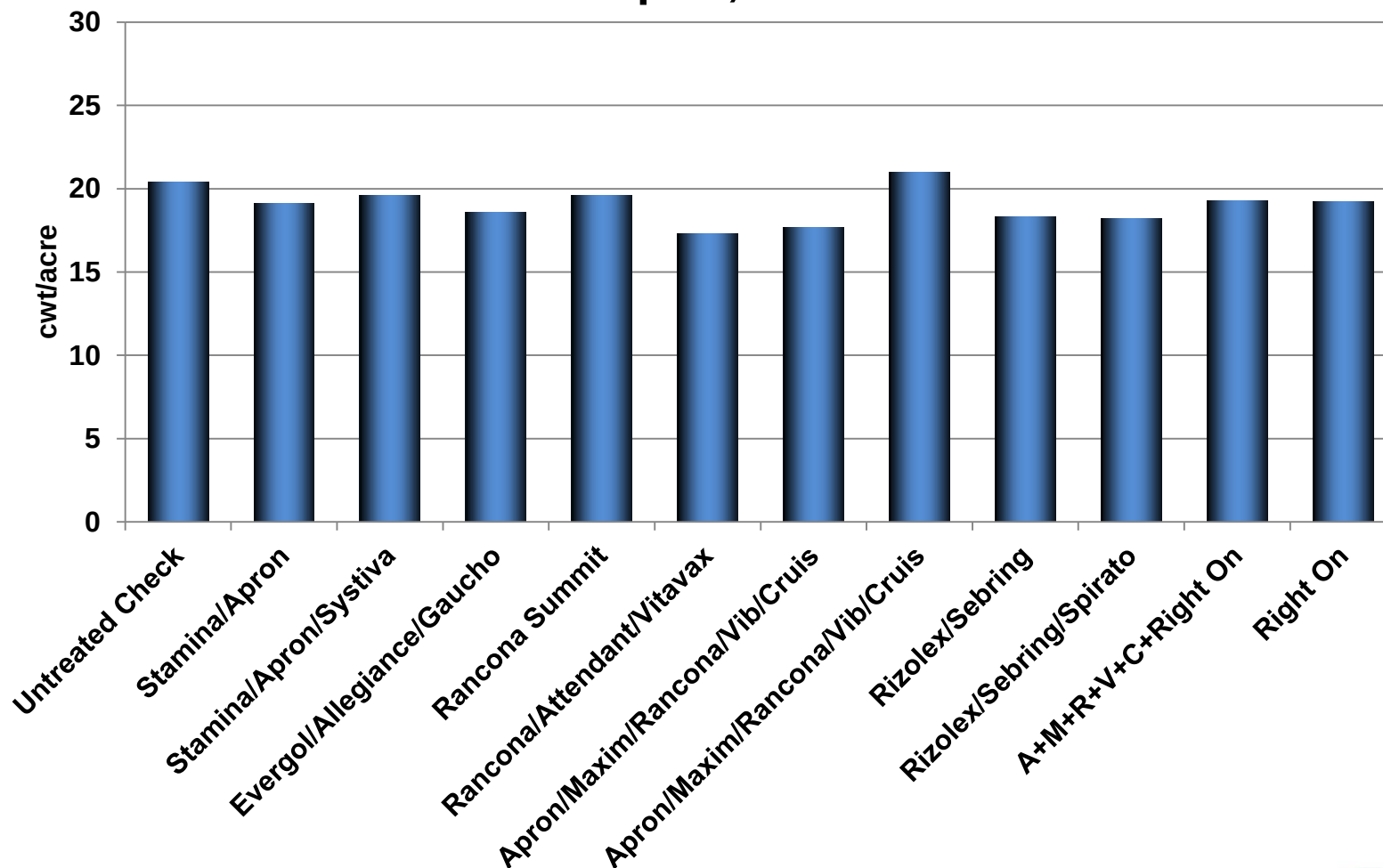


Seed Treatment

2013 McGregor Co. Product Development Trial, Perham, MN								
Replication #1 was deleted was the analysis; $\alpha = 0.10$								
		Rate (oz/cwt)			Yield (cwt/a)			
Trt	Product		Plant Population* (6/26)	Plant Population* (7/7)				
LSD _{P=0.10}			5354.1	4241.4	3.9			
Prob(F)			0.0402	0.0768	0.6157			
CV			11.2	8.6	11.6			



Effect of Seed Treatments on Dry Bean Yield Rupert, ID 2013



Seed Treatment



Rating Type				Stand (#/5 feet)				Yield (cwt/acre)	
Rating Date				June 6		June 10		August 27	
Days After Planting				10		14		92	
Trt	Treatment	Rate							
1	Untreated Check			20	a	23	a	20.4	a
2	Stamina	0.400	oz/cwt	18	a	21	a	19.1	a
	Apron XL	0.200	oz/cwt						
3	Stamina	0.400	oz/cwt	19	a	24	a	19.6	a
	Apron XL	0.200	oz/cwt						
	Systiva XS	0.240	oz/cwt						
4	Evergol Energy	1.000	oz/cwt	19	a	22	a	18.6	a
	Allegience FL	0.200	oz/cwt						
	Gaucho 600	2.500	oz/cwt						
5	Rancona Summit	4.000	oz/cwt	21	a	24	a	19.6	a
6	Rancona Summit	4.000	oz/cwt	17	a	22	a	17.3	a
	Attendant 480	2.000	oz/cwt						
	Vitavax 34	1.600	oz/cwt						
7	Apron XL	0.160	oz/cwt	19	a	24	a	17.7	a
	Maxim 4FS	0.040	oz/cwt						
	Rancona 3.8FS	0.051	oz/cwt						
	Vibrance	0.080	oz/cwt						
	Cruiser 5FS	1.280	oz/cwt						
8	Apron XL	0.320	oz/cwt	21	a	22	a	21.0	a
	Maxim 4FS	0.160	oz/cwt						
	Rancona 3.8FS	0.085	oz/cwt						
	Vibrance	0.160	oz/cwt						
	Cruiser 5FS	1.280	oz/cwt						



Seed Treatment

9	Rizolex	0.300	oz/cwt	20	a	23	a	18.3	a
	AP2	0.300	oz/cwt						
	Sebring 318FS	0.100	oz/cwt						
10	Rizolex	0.300	oz/cwt	18	a	23	a	18.2	a
	AP2	0.300	oz/cwt						
	Sebring 318FS	0.100	oz/cwt						
	Spirato 480FS	0.080	oz/cwt						
11	Apron XL	0.160	oz/cwt	20	a	21	a	19.3	a
	Maxim 4FS	0.040	oz/cwt						
	Rancona 3.8FS	0.051	oz/cwt						
	Vibrance	0.080	oz/cwt						
	Cruiser 5FS	1.280	oz/cwt						
	Right On	0.56	g/cwt						
12	Right On	0.56	g/cwt	19	a	22	a	19.2	a
LSD (P=.10)				3.5		2.5		2.37	
Standard Deviation				2.9		2.1		1.98	
CV				15.34		9.14		10.38	
Grand Mean				19.1		22.6		19.03	
Treatment Prob(F)				0.6857		0.3581		0.3467	



Seed Treatment

				Root Lesion			
Rating				Incidence		Severity	
Rating Date				July 15			
Trt	Treatment	Rate					
1	Untreated Check			100	a	52	a
2	Stamina	0.400	oz/cwt	100	a	41	a
	Apron XL	0.200	oz/cwt				
3	Stamina	0.400	oz/cwt	95	a	29	a
	Apron XL	0.200	oz/cwt				
	Systiva XS	0.240	oz/cwt				
4	Evergol Energy	1.000	oz/cwt	100	a	43	a
	Allegience FL	0.200	oz/cwt				
	Gaucha 600	2.500	oz/cwt				
5	Rancona Summit	4.000	oz/cwt	100	a	35	a
6	Rancona Summit	4.000	oz/cwt	100	a	34	a
	Attendant 480	2.000	oz/cwt				
	Vitavax 34	1.600	oz/cwt				
7	Apron XL	0.160	oz/cwt	95	a	35	a
	Maxim 4FS	0.040	oz/cwt				
	Rancona 3.8FS	0.051	oz/cwt				
	Vibrance	0.080	oz/cwt				
	Cruiser 5FS	1.280	oz/cwt				
8	Apron XL	0.320	oz/cwt	95	a	32	a
	Maxim 4FS	0.160	oz/cwt				
	Rancona 3.8FS	0.085	oz/cwt				
	Vibrance	0.160	oz/cwt				
	Cruiser 5FS	1.280	oz/cwt				



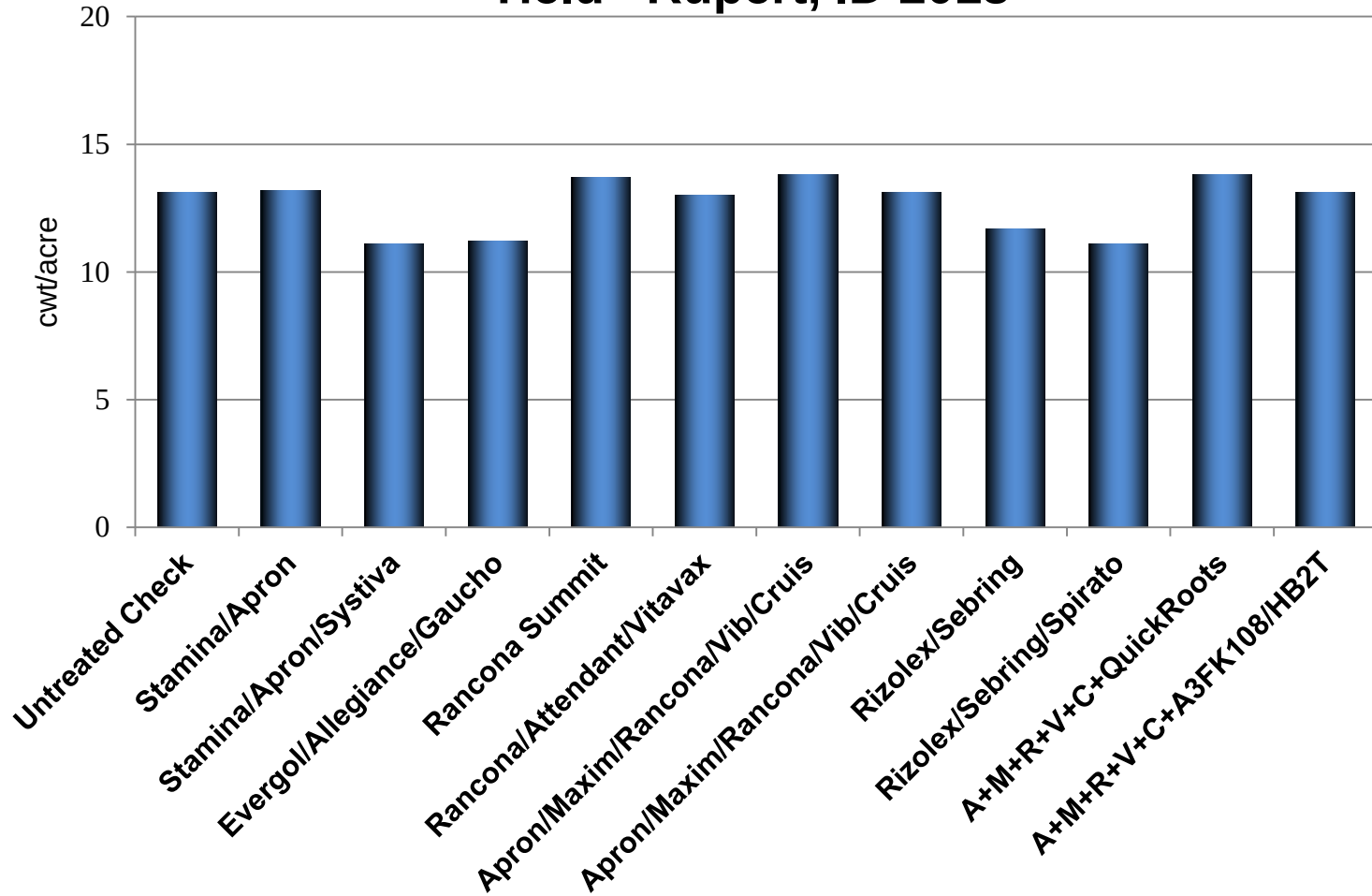
Seed Treatment

9	Rizolex	0.300	oz/cwt	95	a	46	a
	AP2	0.300	oz/cwt				
	Sebring 318FS	0.100	oz/cwt				
10	Rizolex	0.300	oz/cwt	100	a	52	a
	AP2	0.300	oz/cwt				
	Sebring 318FS	0.100	oz/cwt				
	Spirato 480FS	0.080	oz/cwt				
11	Apron XL	0.160	oz/cwt	100	a	39	a
	Maxim 4FS	0.040	oz/cwt				
	Rancona 3.8FS	0.051	oz/cwt				
	Vibrance	0.080	oz/cwt				
	Cruiser 5FS	1.280	oz/cwt				
	Right On	0.56	g/cwt				
12	Right On	0.56	g/cwt	95	a	25	a
LSD (P=.10)				7.1		19.7	
Standard Deviation				5.9		16.4	
CV				6.01		42.74	
Grand Mean				97.92		38.44	
Treatment Prob(F)				0.6695		0.3837	



Seed Treatment

Effect of Seed Treatments on Garden Bean Yield Rupert, ID 2013



Seed Treatment

Sponsored by the Idaho Bean Commission



Rating Type			# Plants Emerged/5 row ft			
Rating Date			6 Jun 2013		10 Jun 2013	
Days After Planting			10		14	
Trt	Treatment	Rate				
1	Untreated check		11 bc		16 de	
2	Stamina	0.400 oz/cwt	15 a		19 abc	
	Apron XL	0.200 oz/cwt				
3	Stamina	0.400 oz/cwt	13 ab		20 ab	
	Apron XL	0.200 oz/cwt				
	Systiva XS	0.240 oz/cwt				
4	Evergol Energy	1.000 oz/cwt	4 d		17 cd	
	Allegiance FL	0.200 oz/cwt				
	Gaucha 600	2.500 oz/cwt				
5	Rancona Summit	4.000 oz/cwt	10 c		18 bcd	
6	Rancona Summit	4.000 oz/cwt	10 c		21 a	
	Attendant 480	2.000 oz/cwt				
	Vitavax 34	1.600 oz/cwt				
7	Apron XL	0.160 oz/cwt	13 abc		19 abc	
	Maxim 4FS	0.040 oz/cwt				
	Rancona 3.8FS	0.051 oz/cwt				
	Vibrance	0.080 oz/cwt				
	Cruiser 5FS	1.280 oz/cwt				
8	Apron XL	0.320 oz/cwt	13 ab		19 abc	
	Maxim 4FS	0.160 oz/cwt				
	Rancona 3.8FS	0.085 oz/cwt				
	Vibrance	0.160 oz/cwt				
	Cruiser 5FS	1.280 oz/cwt				



Seed Treatment

9	Rizolex	0.300 oz/cwt	6 d	16 cd
	AP2	0.300 oz/cwt		
	Sebring 318FS	0.100 oz/cwt		
10	Rizolex	0.300 oz/cwt	5 d	14 e
	AP2	0.300 oz/cwt		
	Sebring 318FS	0.100 oz/cwt		
	Spirato 480 FS	0.080 oz/cwt		
11	Apron XL	0.160 oz/cwt	13 ab	18 bcd
	Maxim 4FS	0.040 oz/cwt		
	Rancona 3.8FS	0.051 oz/cwt		
	Vibrance	0.080 oz/cwt		
	Cruiser 5FS	1.280 oz/cwt		
	Quick Roots WP	4.35 g/cwt		
12	Apron XL	0.160 oz/cwt	14 a	18 bcd
	Maxim 4FS	0.040 oz/cwt		
	Rancona 3.8FS	0.051 oz/cwt		
	Vibrance	0.080 oz/cwt		
	Cruiser 5FS	1.280 oz/cwt		
	A3FK108	8.76 ml/cwt		
	HB2T	1.53 oz/cwt		
LSD (P=.10)			2.9	2.6
Standard Deviation			2.4	2.2
CV			23.22	12.14
Grand Mean			10.49	17.77
Treatment Prob(F)			0.0001	0.0038



Seed Treatment

Description				Yield (cwt/acre)	
Rating Date				10 Sep 2013	
Trt	Treatment	Rate			
1	Untreated check			13.1	a
2	Stamina	0.400	oz/cwt	13.2	a
	Apron XL	0.200	oz/cwt		
3	Stamina	0.400	oz/cwt	11.1	a
	Apron XL	0.200	oz/cwt		
	Systiva XS	0.240	oz/cwt		
4	Evergol Energy	1.000	oz/cwt	11.2	a
	Allegiance FL	0.200	oz/cwt		
	Gaucho 600	2.500	oz/cwt		
5	Rancona Summit	4.000	oz/cwt	13.7	a
6	Rancona Summit	4.000	oz/cwt	13.0	a
	Attendant 480	2.000	oz/cwt		
	Vitavax 34	1.600	oz/cwt		
7	Apron XL	0.160	oz/cwt	13.8	a
	Maxim 4FS	0.040	oz/cwt		
	Rancona 3.8FS	0.051	oz/cwt		
	Vibrance	0.080	oz/cwt		
	Cruiser 5FS	1.280	oz/cwt		
8	Apron XL	0.320	oz/cwt	13.1	a
	Maxim 4FS	0.160	oz/cwt		
	Rancona 3.8FS	0.085	oz/cwt		
	Vibrance	0.160	oz/cwt		
	Cruiser 5FS	1.280	oz/cwt		



Seed Treatment

9	Rizolex	0.300	oz/cwt	11.7	a
	AP2	0.300	oz/cwt		
	Sebring 318FS	0.100	oz/cwt		
10	Rizolex	0.300	oz/cwt	11.1	a
	AP2	0.300	oz/cwt		
	Sebring 318FS	0.100	oz/cwt		
	Spirato 480 FS	0.080	oz/cwt		
11	Apron XL	0.160	oz/cwt	13.8	a
	Maxim 4FS	0.040	oz/cwt		
	Rancona 3.8FS	0.051	oz/cwt		
	Vibrance	0.080	oz/cwt		
	Cruiser 5FS	1.280	oz/cwt		
	Quick Roots WP	4.35	g/cwt		
12	Apron XL	0.160	oz/cwt	13.1	a
	Maxim 4FS	0.040	oz/cwt		
	Rancona 3.8FS	0.051	oz/cwt		
	Vibrance	0.080	oz/cwt		
	Cruiser 5FS	1.280	oz/cwt		
	A3FK108	0.296	oz/cwt		
	HB2T	1.53	oz/cwt		
LSD (P=.10)				2.243	
Standard Deviation				1.869	
CV				14.77	
Grand Mean				12.65	
Treatment Prob(F)				0.2853	



Seed Treatment

Description				Root Rot Incidence		Root Rot Severity	
Trt	Treatment	Rate					
1	Untreated check			100	a	62	a
2	Stamina	0.400	oz/cwt	100	a	68	a
	Apron XL	0.200	oz/cwt				
3	Stamina	0.400	oz/cwt	100	a	58	a
	Apron XL	0.200	oz/cwt				
	Systiva XS	0.240	oz/cwt				
4	Evergol Energy	1.000	oz/cwt	100	a	77	a
	Allegiance FL	0.200	oz/cwt				
	Gaucha 600	2.500	oz/cwt				
5	Rancona Summit	4.000	oz/cwt	100	a	60	a
6	Rancona Summit	4.000	oz/cwt	100	a	56	a
	Attendant 480	2.000	oz/cwt				
	Vitavax 34	1.600	oz/cwt				
7	Apron XL	0.160	oz/cwt	100	a	55	a
	Maxim 4FS	0.040	oz/cwt				
	Rancona 3.8FS	0.051	oz/cwt				
	Vibrance	0.080	oz/cwt				
	Cruiser 5FS	1.280	oz/cwt				
8	Apron XL	0.320	oz/cwt	100	a	53	a
	Maxim 4FS	0.160	oz/cwt				
	Rancona 3.8FS	0.085	oz/cwt				
	Vibrance	0.160	oz/cwt				
	Cruiser 5FS	1.280	oz/cwt				



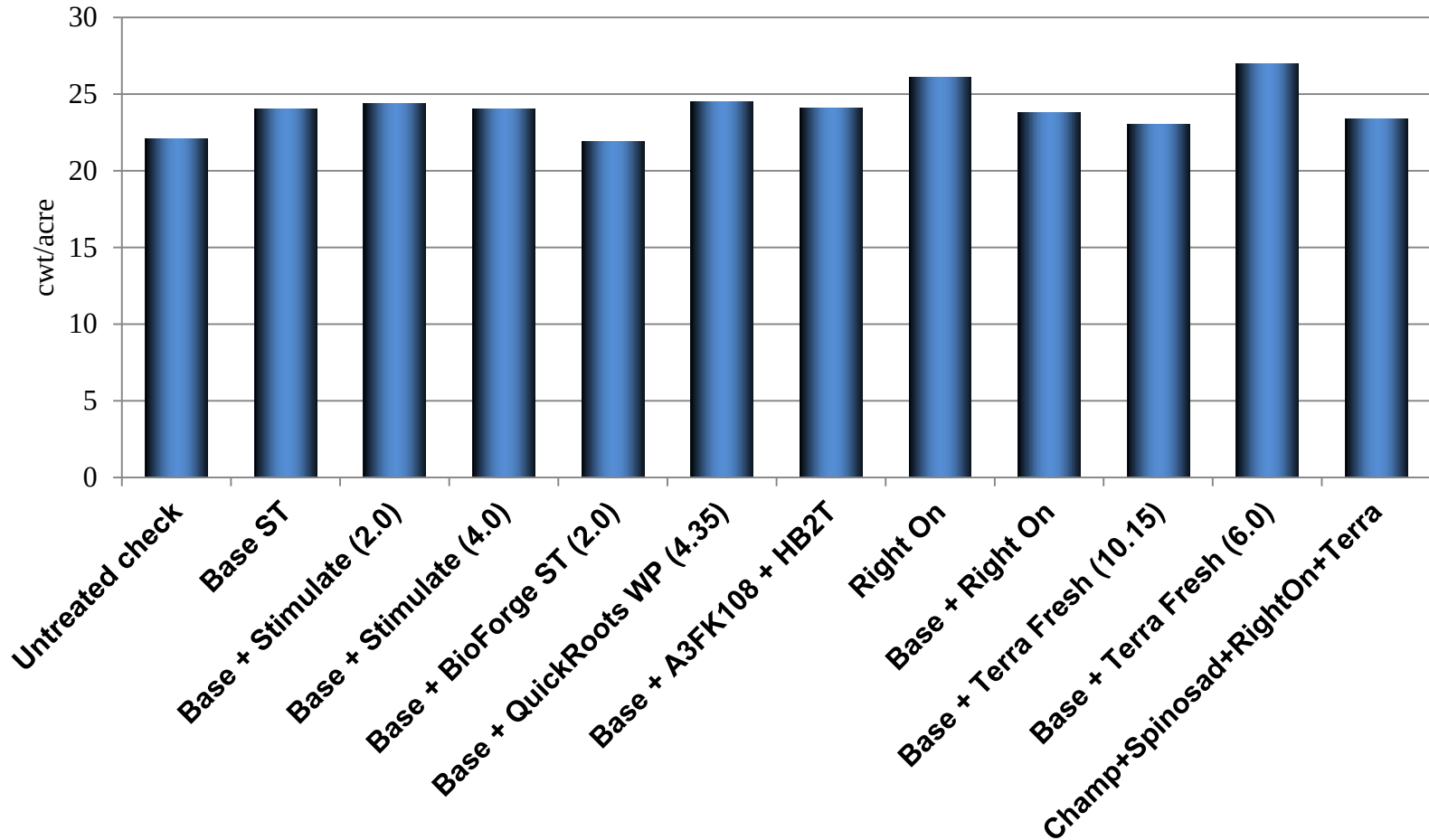
Seed Treatment

9	Rizolex	0.300	oz/cwt	100	a	70	a
	AP2	0.300	oz/cwt				
	Sebring 318FS	0.100	oz/cwt				
10	Rizolex	0.300	oz/cwt	100	a	63	a
	AP2	0.300	oz/cwt				
	Sebring 318FS	0.100	oz/cwt				
	Spirato 480 FS	0.080	oz/cwt				
11	Apron XL	0.160	oz/cwt	100	a	57	a
	Maxim 4FS	0.040	oz/cwt				
	Rancona 3.8FS	0.051	oz/cwt				
	Vibrance	0.080	oz/cwt				
	Cruiser 5FS	1.280	oz/cwt				
	Quick Roots WP	4.35	g/cwt				
12	Apron XL	0.160	oz/cwt	100	a	56	a
	Maxim 4FS	0.040	oz/cwt				
	Rancona 3.8FS	0.051	oz/cwt				
	Vibrance	0.080	oz/cwt				
	Cruiser 5FS	1.280	oz/cwt				
	A3FK108	8.76	ml/cwt				
	HB2T	1.53	oz/cwt				
LSD (P=.10)				0.0		14.3	
Standard Deviation				0.0		11.9	
CV				0.0		19.42	
Grand Mean				100.0		61.19	
Treatment Prob(F)				1.0000		0.2065	



Seed Treatment

Effect of Biostimulant Seed Treatments on Dry Bean Yield Rupert, ID 2013



Seed Treatment



Description		# Plants Emerged/5 row feet		Yield (cwt/acre)
Rating Date		6-Jun-2013	10-Jun-2013	27-Aug-2013
Days from Planting		10	14	92
Trt				
1	Untreated check	17 a	23 a	22.1 a
2	Base	21 a	25 a	24.0 a
3	Base + Stimulate (2.0)	19 a	23 a	24.4 a
4	Base + Stimulate (4.0)	18 a	22 a	24.0 a
5	Base + Bioforge ST (2.0)	18 a	23 a	21.9 a
6	Base + QuickRoots WP (4.35 g)	18 a	23 a	24.5 a
7	Base + A3FK108 (0.3) + HB2T (1.53)	18 a	22 a	24.1 a
8	Right On (0.56 g)	18 a	23 a	26.1 a
9	Base + Right On (0.56 g)	18 a	23 a	23.8 a
10	Base + Terra Fresh (10.15)	18 a	22 a	23.0 a
11	Base + Terra Fresh (6.0)	18 a	21 a	27.0 a
12	Champ+Spinosad+Right On+ Terra Fresh	19 a	23 a	23.4 a
LSD (P=.10)		2.8469	2.7641	3.11
Standard Deviation		2.3725	2.3035	2.59
CV		12.94	10.16	10.78
Grand Mean		18.34	22.68	24.03
Treatment Prob(F)		0.6518	0.5334	0.2838



Seed Treatment

U.S. Blends

LSV Fungicide Custom Blend	oz/cwt
Apron XL	0.16
Rancona 3.8FS	0.051
Maxim 4FS	0.04
Dynasty	0.075
Total	0.166

LSV Vibrance F Custom Blend	oz/cwt
Apron XL	0.16
Rancona 3.8FS	0.051
Maxim 4FS	0.08
Dynasty	0.075
Vibrance	0.08
Total	0.286

U.S. Blends

LSV Insecticide	
Apron XL	0.16
Rancona 3.8FS	0.051
Maxim 4FS	0.04
Dynasty	0.075
Cruiser 5FS	1.28
Total	1.446

LSV Vibrance I Custom Blend	oz/cwt
Apron XL	0.16
Rancona 3.8FS	0.051
Maxim 4FS	0.08
Dynasty	0.075
Vibrance	0.08
Cruiser 5FS	1.28
Total	1.566

U.S. Blends

LSV Idaho Custom Blend	oz/cwt
Apron XL	0.08
Maxim 4FS	0.04
Cruiser 5FS	1.28
Total	1.32



Seed Treatment

Canadian Blends

Canadian Fung. Custom Blend	oz/cwt
Apron XL	0.16
Maxim 4FS	0.08
Dynasty	0.075
Total	0.155

LSV Canadian F Custom Blend	oz/cwt
Apron XL	0.16
Maxim 4FS	0.08
Dynasty	0.075
Vibrance	0.08
Total	0.235



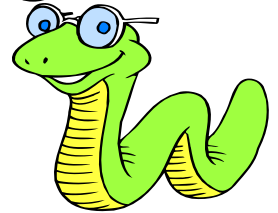
Seed Treatment

Canadian Blends

Canadian Insect. Custom Blend	oz/cwt
Apron XL	0.16
Maxim 4FS	0.08
Dynasty	0.075
Cruiser 5FS	1.28
Total	1.435

LSV Canadian I Custom Blend	oz/cwt
Apron XL	0.16
Maxim 4FS	0.08
Dynasty	0.075
Vibrance	0.08
Cruiser 5FS	1.28
Total	1.515

Seed Treatment Insecticide Recommendations



- Cruiser 1.28 oz/cwt This is the only rate
 - Best On Wireworm and Leafhopper
 - **Has The Vigor Effect**
- Lorsban 50W – 2.0 oz/cwt
 - Seed injury is sometimes observed when 2.0 oz/cwt is used. Most applications are made at 1.0 - 1.5 oz/cwt
 - Best On Seed Corn Maggot



Seed Treatment

Disease & Insect Efficacy Chart For Bean Seed Treatments

Product	Pythium	Phytophthora	Early Season Fusarium	Early Season Rhizoctonia	Wireworm	Seed Corn Maggot	Leaf-hopper	Aphids	Plant Health Effects
LSV Vibrance Fungicide Custom Blend									
LSV Vibrance Insecticide Custom Blend									
LSV Fungicide Custom Blend									
LSV Insecticide Custom Blend									
Evergol Energy + Allegience									
Evergol Energy + Allegience + Gaucho 600									
Rancona 3.8 FS									
Rancona Summit									
Rancona Summit + Vitavax 34									
Rancona 3.8 FS									
Apron XL									
Allegience FL									
Maxim 4FS									
Dynasty									
Stamina									
Captan 4 Flowable									
Thiram 42 S									
Vitavax 34									
Cruiser 5FS									
Gaucho 600									
Lorsban 50W									

*Dry Beans Only



Excellent



Good



Fair or
Suppression



No Control or
Not Rated



Seed Treatment

Other Bean Issues?



Seed Treatment



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SEED TREATMENT

Questions?

Thank You!



Seed Treatment