

Disclaimer:

This document is based on the results from an individual trial and may contain experimental use patterns that are currently off-label. **This document does not provide any interpretation and should not be taken as an endorsement of any unregistered use pattern.**

Professional advice should be sought for specific recommendations to ensure access to the most up to date information and knowledge.

Any product referred to in this document must be used strictly as directed, and in accordance with all label or permit instructions. Always consult the label prior to use.

Pratylenchus thornei Trial - Winter Crop Resistance Screen 2015 - Macalister

Trial ID: LB1501

Location: Macalister

Trial Year: 2015

Investigator: Linda Bailey

Planting Date:	28/05/2015	Total soil N:	150kg N/ha (18/02/2015)
Harvest Date:	Not harvested	Colwell P:	21mg/kg (0-10cm) 8mg/kg (10-30cm)
Low <i>P thornei</i> (ex-Caparoï 2013):	2.7 Pt/g soil (18/02/2015)	BSES P:	24mg/kg (0-10cm) 10mg/kg (10-30cm)
High <i>P thornei</i> (ex-Strzelecki 2013):	29 Pt/g soil (18/02/2015)	Target Plant Stand:	Varied by crop
PAW Wheat:	130mm (18/02/2015)	Plot Size (Planted):	9 x 2 m (5 rows x 36cm)
Granulock Z Extra (at planting):	40kg/ha	Plot Size (Harvested):	6 x 2m

Scientific Pest Name:					<i>Pratylenchus thornei</i>
Pest Name:					Root-lesion Nematode
Rating Date:		16/06/2015	14/07/2015	07/09/2015	07/03/2016
Rating Type:		EMERGENCE	NDVI	NDVI	COUNT
Rating Unit:		/m ²	RATIO	RATIO	Pt/g soil
Plant-Evaluation Interval:		19 DP1	47 DP1	102 DP1	284 DP1
ARM Action Codes:			AL	AL	AL
Trt No.	Treatment				
TABLE OF A (Nematode Pop) MEANS					
1	Low	86.7-	0.536t-	0.685ta	3.9tb
2	High	82.8-	0.522t-	0.676tb	16.7ta
TABLE OF B (Variety) MEANS					
1	CRC Walana Field Pea	47.1e	0.533td	0.733tc	5.7tde
2	Maki Field Pea	42.7e	0.504te	0.742tc	4.1te
3	Hawkeye Triticale	77.1d	0.748ta	0.730tcd	11.8tab
4	Fusion Triticale	78.1d	0.724tab	0.769tb	13.5ta
5	Glenelg Linseed	142.5a	0.344tf	0.718td	8.6tbc
6	Aladdin Oats	94.1c	0.719tb	0.845ta	12.8ta
7	Canary Seed	111.8b	0.585tc	0.846ta	8.1tc
8	Fallow	-	NA	NA	6.6tcd
TABLE OF A (Nematode Pop) B (Variety) MEANS					
1	Low	48.5-	0.537t-	0.739tde	2.0tde
1	CRC Walana Field Pea				
2	High	45.7-	0.529t-	0.727tef	14.2tab
1	CRC Walana Field Pea				
1	Low	43.1-	0.513t-	0.744tcde	1.5te
2	Maki Field Pea				
2	High	42.4-	0.494t-	0.740tde	9.3tbc
2	Maki Field Pea				
1	Low	78.0-	0.765t-	0.756tcd	6.7tc
3	Hawkeye Triticale				
2	High	76.2-	0.732t-	0.705tg	20.3ta
3	Hawkeye Triticale				
1	Low	84.0-	0.735t-	0.776tb	9.3tbc
4	Fusion Triticale				
2	High	72.1-	0.713t-	0.762tbc	19.4ta
4	Fusion Triticale				
1	Low	153.7-	0.352t-	0.717tfg	3.1td
5	Glenelg Linseed				
2	High	131.3-	0.337t-	0.720tfg	21.8ta
5	Glenelg Linseed				

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Rating Date:		16/06/2015	14/07/2015	07/09/2015	07/03/2016	
Rating Type:		EMERGENCE	NDVI	NDVI	COUNT	
Rating Unit:		/m ²	RATIO	RATIO	Pt/g soil	
Plant-Evaluation Interval:		19 DP1	47 DP1	102 DP1	284 DP1	
ARM Action Codes:			AL	AL	AL	
Trt No.	Treatment					
1	Low	91.9-	0.726t-	0.847ta	7.8tc	
6	Aladdin Oats					
2	High	96.4-	0.712t-	0.844ta	20.6ta	
6	Aladdin Oats					
1	Low	108.0-	0.583t-	0.846ta	3.3td	
7	Canary Seed					
2	High	115.6-	0.586t-	0.847ta	18.3ta	
7	Canary Seed					
1	Low	.	NA	NA	2.9tde	
8	Fallow					
2	High	.	NA	NA	14.0tab	
8	Fallow					

Means followed by same letter do not significantly differ (P=.05, LSD)

COMPLETE SPLIT-PLOT AOV						
16/06/2015						
EMERGE /m ² 19 DP1 (Data Column 1)						
Source	DF	Sum of Squares	Mean Square	F	Prob.(F)	LSD (.05)
Total	55	66498.439286				
A	1	216.071429	216.071429	4.288	0.1301	5.6
ERROR A	3	151.168571	50.389524			
B	6	59528.501786	9921.416964	69.481	0.0001	12.1
AB	6	1251.651071	208.608512	1.461	0.2193	17.1
ERROR B	36	5140.592857	142.794246			

COMPLETE SPLIT-PLOT AOV						
14/07/2015						
NDVI RATIO 47 DP1 AL (Data Column 3)						
Source	DF	Sum of Squares	Mean Square	F	Prob.(F)	LSD (.05)
Total	61	0.205309				
A	1	0.000267	0.000267	5.448	0.1018	0.006
ERROR A	3	0.000147	0.000049			
B	7	0.202678	0.028954	553.034	0.0001	0.007
AB	7	0.000109	0.000016	0.296	0.9514	0.010
ERROR B	40	0.002094	0.000052			

COMPLETE SPLIT-PLOT AOV						
07/09/2015						
NDVI RATIO 102 DP1 AL (Data Column 5)						
Source	DF	Sum of Squares	Mean Square	F	Prob.(F)	LSD (.05)
Total	63	0.228260				
A	1	0.000086	0.000086	26.314	0.0143	0.001
ERROR A	3	0.000010	0.000003			
B	7	0.227324	0.032475	3187.288	0.0001	0.003
AB	7	0.000286	0.000041	4.013	0.0019	0.005
ERROR B	42	0.000428	0.000010			

Pratylenchus thornei Trial - Winter Crop Resistance Screen - Macalister 2015

Trial ID: LB1501 Location: Macalister Trial Year: 2015

COMPLETE SPLIT-PLOT AOV <i>Pratylenchus thornei</i> – Root-lesion Nematode 07/03/2016						
	COUNT	Pt/g soil	284 DP1	AL	(Data Column 6)	
Source	DF	Sum of Squares	Mean Square	F	Prob.(F)	LSD (.05)
Total	63	7.621964				
R	3	0.072421	0.024140	1.440	0.2447	
A	1	4.926985	4.926985	136.717	0.0013	0.2
ERROR A	3	0.108114	0.036038			
B	7	1.449687	0.207098	12.352	0.0001	0.1
AB	7	0.360575	0.051511	3.072	0.0105	0.2
ERROR B	42	0.704184	0.016766			

Rating Type

NDVI = normalized difference vegetation index

ARM Action Codes

AL = Automatic log transformation of X+1

DP1 = Days after Planting

Crop Description	
Crop 1:	<i>Pisum sativum arvense</i> Field Pea
Variety:	CRC Walana, Maki
Planting Date	28/05/2015
Planting Method:	Direct Drilled
Planting Equipment:	Plot Planter
Row Spacing, Unit:	36 cm
Crop 2:	<i>Triticosecale sp.</i> Triticale
Variety	Hawkeye, Fusion
	28/05/2015
Row Spacing, Unit:	36 cm
Crop 3:	<i>Linum usitatissimum</i> Linseed
Variety	Glenelg
Planting Date:	28/05/2015
Row Spacing, Unit:	36 cm
Crop 4:	<i>Avena sativa (winter)</i> Winter Oats
Variety	Aladin
Planting Date:	28/05/2015
Row Spacing, Unit:	36 cm
Crop 5:	<i>Phalaris canariensis</i> Canary Grass
Planting Date:	28/05/2015
Row Spacing, Unit:	36 cm