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 - Wheat Deep P 2015 - Macalister

Trial ID: LB1506 **Location:** Macalister **Trial Year:** 2015
Investigator: Linda Bailey

Planting Date:	**28/5/2015**
Harvest Date:	**2/11/2015**
Low *P thornei* (ex-Caparoi 2013):	**2.7 *Pt*/g soil (18/02/2015)**
High *P thornei* (ex-Strzelecki 2013):	**29 *Pt*/g soil (18/02/2015)**
PAW Wheat:	**130mm (18/02/2015)**
Granulock Z Extra (at planting):	**40kg/ha**

Total soil N:	**150kg N/ha (18/02/2015)**
Colwell P:	**21mg/kg (0-10cm) 8mg/kg (10-30cm)**
BSES P:	**24mg/kg (0-10cm) 10mg/kg (10-30cm)**
Plot Size (Planted):	**9 x 2 m (5 rows x 36cm)**
Plot Size (Harvested):	**6 x 2m**
P Application:	**22kg MAP**

Crop Name		**Wheat**				
Rating Date		**16/06/2015**	**5/08/2015**	**7/09/2015**	**2/11/2015**	**3/02/2016**
Rating Type		**EMERGENCE**	**NDVI**	**NDVI**	**YIELD**	**PROTEIN**
Rating Unit		**/m²**	**RATIO**	**RATIO**	**t/ha**	**%**
Plant-Evaluation Interval		**19 DP1**	**69 DP1**	**102 DP1**	**158 DP1**	
ARM Action Codes					**TY1**	
CV					**3.0%**	
Trt No.	**Treatment**					
TABLE OF A (*P thornei* population) MEANS						
1	Low	61.3-	0.773a	0.795-	4.73-	14.2-
2	High	62.0-	0.755b	0.786-	4.82-	14.0-
TABLE OF B (Deep P) MEANS						
1	Nil P (10N)	61.0-	0.753b	0.792-	4.79-	14.0-
2	Deep P (22P, 10N)	62.4-	0.775a	0.789-	4.77-	14.2-
TABLE OF C (Variety) MEANS						
1	Spitfire	59.0b	0.764-	0.784b	4.64b	14.6a
2	Sunguard	64.1a	0.757-	0.808a	4.85a	14.1b
3	Elmore CL	62.0ab	0.771-	0.781b	4.85a	13.6c
TABLE OF A (Nematode Pop) B (Deep P) MEANS						
1 1	Low Nil P (10N)	60.3-	0.762-	0.797-	4.75-	14.1-
2 1	High Nil P (10N)	61.7-	0.744-	0.788-	4.82-	14.0-
1 2	Low Deep P (22P, 10N)	62.4-	0.784-	0.794-	4.71-	14.2-
2 2	High Deep P (22P, 10N)	62.4-	0.766-	0.785-	4.82-	14.1-
TABLE OF A (Nematode Pop) C (Variety) MEANS						
1 1	Low Spitfire	58.2-	0.776ab	0.789b	4.58d	14.6-
2 1	High Spitfire	59.8-	0.753c	0.779bc	4.70cd	14.6-
1 2	Low Sunguard	62.2-	0.754bc	0.807a	4.71cd	14.3-
2 2	High Sunguard	65.9-	0.761bc	0.809a	4.99a	13.9-
1 3	Low Elmore CL	63.6-	0.790a	0.790b	4.91ab	13.6-
2 3	High Elmore CL	60.4-	0.752c	0.772c	4.78bc	13.6-
TABLE OF B (Deep P) C (Variety) MEANS						
1 1	Nil P (10N) Spitfire	59.2-	0.752-	0.784-	4.73a	14.5-
2 1	Deep P (22P, 10N) Spitfire	58.8-	0.776-	0.784-	4.54b	14.7-

Pratylenchus thornei - Wheat Deep P 2015 – Macalister

Trial ID: LB1506 **Location:** Macalister **Trial Year:** 2015

Crop Name		Wheat				
Rating Date		16/06/2015	5/08/2015	7/09/2015	2/11/2015	3/02/2016
Rating Type		EMERGENCE	NDVI	NDVI	YIELD	PROTEIN
Rating Unit		/m²	RATIO	RATIO	t/ha	%
Plant-Evaluation Interval		19 DP1	69 DP1	102 DP1	158 DP1	
ARM Action Codes					TY1	
CV					3.0%	
Trt No.	Treatment					
1 2	Nil P (10N) Sunguard	64.0-	0.750-	0.810-	4.82a	14.1-
2 2	Deep P (22P, 10N) Sunguard	64.2-	0.765-	0.806-	4.88a	14.1-
1 3	Nil P (10N) Elmore CL	59.7-	0.758-	0.783-	4.81a	13.6-
2 3	Deep P (22P, 10N) Elmore CL	64.3-	0.784-	0.779-	4.88a	13.7-

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

Pratylenchus thornei - Wheat Deep P 2015 - Macalister

Trial ID: LB1506 **Location:** Macalister **Trial Year:** 2015

Crop Name		Wheat	
Rating Date		3/02/2016	3/02/2016
Rating Type		SCREENINGS	TEST WT
Rating Unit		%	kg/hL
ARM Action Codes			
Trt No.	Treatment		
TABLE OF A (Nematode Pop) MEANS			
1	Low *Pt*	3.1-	77.2b
2	High	2.6-	78.2a
TABLE OF B (Deep P) MEANS			
1	Nil P (10N)	2.8-	77.7-
2	Deep P (22P, 10N)	2.9-	77.7-
TABLE OF C (Variety) MEANS			
1	Spitfire	2.8-	78.0-
2	Sungard	2.7-	77.5-
3	Elmore CL	2.9-	77.8-
TABLE OF A (Nematode Pop) B (Deep P) MEANS			
1	Low *Pt*	3.2a	77.1-
1	Nil P (10N)		
2	High	2.4c	78.3-
1	Nil P (10N)		
1	Low *Pt*	3.0ab	77.4-
2	Deep P (22P, 10N)		
2	High	2.7bc	78.1-
2	Deep P (22P, 10N)		
TABLE OF A (Nematode Pop) C (Variety) MEANS			
1	Low *Pt*	3.1-	77.4-
1	Spitfire		
2	High	2.6-	78.5-
1	Spitfire		
1	Low *Pt*	3.0-	77.3-
2	Sungard		
2	High	2.5-	77.6-
2	Sungard		
1	Low *Pt*	3.1-	77.1-
3	Elmore CL		
2	High	2.6-	78.5-
3	Elmore CL		
TABLE OF B (Deep P) C (Variety) MEANS			
1	Nil P (10N)	2.9-	78.2-
1	Spitfire		
2	Deep P (22P, 10N)	2.8-	77.7-
1	Spitfire		
1	Nil P (10N)	2.6-	77.7-
2	Sungard		
2	Deep P (22P, 10N)	2.9-	77.2-
2	Sungard		
1	Nil P (10N)	2.8-	77.3-
3	Elmore CL		
2	Deep P (22P, 10N)	2.9-	78.2-
3	Elmore CL		

Rating Type
NDVI = normalized difference vegetation index
ARM Action Codes
TY1 = 0.00083333*[C4]
T3 = + [5]*1000/(273.5-[11])

DP1 = Days after Planting

Pratylenchus thornei - Wheat Deep P 2015 - Macalister

Trial ID: **LB1506** **Location:** **Macalister** **Trial Year:** **2015**

COMPLETE SPLIT-PLOT AOV Wheat 16/06/2015 EMERGENCE /m² 19 DP1						
Source	**DF**	**SS**	**MS**	**F**	**P**	**LSD (0.05)**
REP	3	67.69	22.56	0.83	0.559	
RLN	1	5.60	5.60	0.21	0.681	
Error REP*RLN	3	81.46	27.16			
Deep P	1	23.80	23.80	0.83	0.368	
Variety	2	208.87	104.43	3.66	**0.037**	3.85
RLN*Deep P	1	5.47	5.47	0.19	0.665	
RLN*Variety	2	102.51	51.25	1.80	0.182	
Deep P*Variety	2	58.57	29.28	1.03	0.370	
Error REP*RLN*Deep P*Variety	32	912.95	28.53			
Total	47	1466.91				

COMPLETE SPLIT-PLOT AOV Wheat 5/08/2015 NDVI RATIO 69 DP1						
Source	**DF**	**SS**	**MS**	**F**	**P**	**LSD (0.05)**
REP	3	0.0008	0.0003	0.82	0.564	
RLN	1	0.0039	0.0039	11.29	**0.044**	0.02
Error REP*RLN	3	0.0010	0.0003			
Deep P	1	0.0055	0.0055	11.17	**0.002**	0.01
Variety	2	0.0015	0.0008	1.55	0.228	
RLN*Deep P	1	0.0000	0.0000	0.00	1.000	
RLN*Variety	2	0.0044	0.0022	4.39	**0.021**	0.02
Deep P*Variety	2	0.0003	0.0001	0.26	0.775	
Error REP*RLN*Deep P*Variety	32	0.0159	0.0005			
Total	47	0.0333				

COMPLETE SPLIT-PLOT AOV Wheat 7/09/2015 NDVI RATIO 102 DP1						
Source	**DF**	**SS**	**MS**	**F**	**P**	**LSD (0.05)**
REP	3	0.0026	0.0009	4.91	0.112	
RLN	1	0.0009	0.0009	5.21	0.107	
Error REP*RLN	3	0.0005	0.0002			
Deep P	1	0.0001	0.0001	1.77	0.193	
Variety	2	0.0071	0.0036	55.38	**0.000**	5.77
RLN*Deep P	1	0.0000	0.0000	0.01	0.943	
RLN*Variety	2	0.0007	0.0004	5.66	**0.008**	0.014
Deep P*Variety	2	0.0000	0.0000	0.31	0.735	
Error REP*RLN*Deep P*Variety	32	0.0021	0.0001			
Total	47	0.0141				

Pratylenchus thornei - Wheat Deep P 2015 - Macalister

Trial ID: LB1506 **Location:** Macalister **Trial Year:** 2015

COMPLETE SPLIT-PLOT AOV
Wheat
2/11/2015
YIELD t/ha 158 DP1

Source	DF	SS	MS	F	P	LSD (0.05)
REP	3	0.17942	0.05981	1.00	0.501	
RLN	1	0.05097	0.05097	0.85	0.425	
Error REP*RLN	3	0.18007	0.06002			
Deep P	1	0.00547	0.00547	0.26	0.614	
Variety	2	0.44086	0.22043	10.53	**0.000**	0.12
RLN*Deep P	1	0.0019	0.0019	0.09	0.766	
RLN*Variety	2	0.28384	0.14192	6.78	**0.004**	0.25 to 0.29
Deep P*Variety	2	0.18577	0.09289	4.44	**0.022**	0.15 to 0.17
Error REP*RLN*Deep P*Variety	26	0.54437	0.02094			
Total	41					

Note: SS are marginal (type III) sums of squares
CV(REP*RLN*Deep P*Variety) = 3.02

COMPLETE SPLIT-PLOT AOV
Wheat
3/02/2016
PROTEIN % 251 DP1

Source	DF	SS	MS	F	P	LSD (0.05)
REP	3	0.1171	0.0390	0.33	0.805	
RLN	1	0.0904	0.0904	0.77	0.445	
Error REP*RLN	3	0.3525	0.1175			
Deep P	1	0.0952	0.0952	1.06	0.312	
Variety	2	6.9878	3.4939	38.97	**0.000**	0.22 to 0.23
RLN*Deep P	1	0.0012	0.0012	0.01	0.910	
RLN*Variety	2	0.2394	0.1197	1.34	0.280	
Deep P*Variety	2	0.1804	0.0902	1.01	0.379	
Error REP*RLN*Deep P*Variety	27	2.4208	0.0897			
Total	42					

COMPLETE SPLIT-PLOT AOV
Wheat
3/02/2016
SCREENINGS % 251 DP1

Source	DF	SS	MS	F	P
REP	3	1.9588	0.6529	1.40	0.394
RLN	1	2.8942	2.8942	6.22	0.088
Error REP*RLN	3	1.3949	0.4650		
Deep P	1	0.0868	0.0868	0.42	0.523
Variety	2	0.0604	0.0302	0.15	0.865
RLN*Deep P	1	0.4633	0.4633	2.24	0.146
RLN*Variety	2	0.0997	0.0498	0.24	0.788
Deep P*Variety	2	0.4431	0.2215	1.07	0.357
Error REP*RLN*Deep P*Variety	27	5.5846	0.2068		
Total	42				

COMPLETE SPLIT-PLOT AOV
Wheat
3/02/2016
TEST WEIGHT kg/hL 251 DP1

Source	DF	SS	MS	F	P
REP	3	2.482	0.827	0.51	0.703
RLN	1	12.890	12.890	7.95	0.067
Error REP*RLN	3	4.866	1.622		
Deep P	1	0.078	0.078	0.06	0.810
Variety	2	3.274	1.637	1.24	0.306
RLN*Deep P	1	0.507	0.507	0.38	0.541
RLN*Variety	2	1.379	0.690	0.52	0.599
Deep P*Variety	2	3.583	1.792	1.36	0.275
Error REP*RLN*Deep P*Variety	27	35.687	1.322		
Total	42				