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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.

Tolerance & Resistance of Corn to *Pratylenchus thornei*

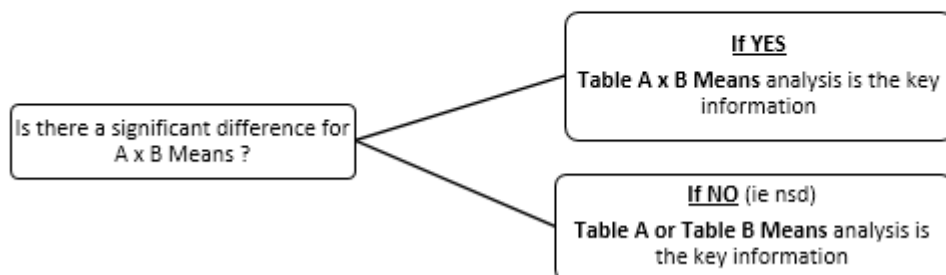
Trial ID: LB1538 Location: Macalister Trial Year: 2015
Investigator: Linda Bailey

Planting Date:	14/09/2015
Row Spacing:	81cm
Planting Equipment:	Small Plot Tyne Planter
Harvest Date:	11/02/2016
Low <i>P thornei</i> (ex-Caparoi 2013):	2.4 Pt/g soil (12/08/2015)
High <i>P thornei</i> (ex-Strzelecki 2013):	29 Pt/g soil (12/08/2015)

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)
Target Plant Stand:	90/m ²
Plot Size (Planted):	9 x 2 m (5 rows x 36cm)
Plot Size (Harvested):	6 x 2m

Trial designed and analysed as a Split Plot

	In Simple Terms
Table of A Means:	Mean of 'Nematode Population' performance with ALL 'Variety' treatments
Table of B Means:	Mean of 'Variety' performance with ALL 'Nematode Population' treatments
Table of A x B Means:	'Nematode Population' performance with EACH 'Variety' treatment



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Crop		Corn				
		30/09/2015 EMERGENCE /m ² 16 DP1 T1	23/11/2015 NDVI Ratio 70 DP1	11/02/2016 YIELD t/ha 150 DP1 TY2 13.9	23/02/2016 Dual EM 162 DP1	23/02/2016 PAW mm 162 DP1
Rating Date	Rating Type	Rating Unit	Plant-Evaluation Interval	ARM Action Codes	Yield CV %	
Trt No.	Treatment					
TABLE OF A MEANS (Nematode Population)						
1	Low RLN population	6.6-	0.734-	4.5-	176.4-	85.8-
2	High RLN population	6.6-	0.751-	5.0-	172.8-	78.9-
TABLE OF B MEANS (Variety)						
1	PAC 727	7.0-	0.758a	5.8a	172.8-	78.9-
2	PAC 606	6.3-	0.774a	5.2a	175.9-	84.7-
3	PAC 735	6.6-	0.746a	3.9bc	175.8-	84.5-
4	P1467	6.8-	0.743a	5.6a	176.1-	85.1-
5	P1756	6.0-	0.690b	3.6c	173.4-	80.1-
6	P1813IT	6.7-	0.745a	4.5b	173.8-	80.8-
TABLE OF A x MEANS (Nematode Population x Variety)						
1	Low RLN population PAC 727	7.0-	0.762-	5.7-	173.7-	80.7-
2	High RLN population PAC 727	6.9-	0.754-	5.8-	171.8-	77.0-
1	Low RLN population PAC 606	6.2-	0.763-	4.9-	178.6-	89.8-
2	High RLN population PAC 606	6.5-	0.786-	5.5-	173.1-	79.5-
1	Low RLN population PAC 735	6.5-	0.733-	3.7-	177.7-	88.1-
2	High RLN population PAC 735	6.7-	0.759-	4.2-	173.9-	81.0-
1	Low RLN population P1467	6.9-	0.726-	4.9-	178.1-	88.8-
2	High RLN population P1467	6.7-	0.761-	6.3-	174.1-	81.3-
1	Low RLN population P1756	6.3-	0.693-	3.3-	176.6-	86.1-
2	High RLN population P1756	5.7-	0.687-	3.9-	170.3-	74.2-
1	Low RLN population P1813IT	6.5-	0.730-	4.5-	174.1-	81.4-
2	High RLN population P1813IT	6.9-	0.759-	4.5-	173.5-	80.3-

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

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COMPLETE SPLIT-PLOT AOV						
Corn						
30/09/2015						
EMERGENCE /m ² 16 DP1 T1 (Data Column 2)						
Source	DF	Sum of Squares	Mean Square	F	Prob.(F)	LSD (.05)
Total	47	25.861070				
R	3	0.545760	0.181920	0.302	0.8234	
A	1	0.001985	0.001985	0.008	0.9333	0.5
ERROR A	3	0.720403	0.240134			
B	5	5.249216	1.049843	1.745	0.1548	0.8
AB	5	1.295931	0.259186	0.431	0.8235	1.1
ERROR B	30	18.047776	0.601593			

COMPLETE SPLIT-PLOT AOV						
Corn						
23/11/2015						
NDVI Ratio 70 DP1 (Data Column 3)						
Source	DF	Sum of Squares	Mean Square	F	Prob.(F)	LSD (.05)
Total	47	0.113857				
R	3	0.021839	0.007280	5.236	0.0050	
A	1	0.003234	0.003234	0.839	0.4272	0.057
ERROR A	3	0.011562	0.003854			
B	5	0.032059	0.006412	4.612	0.0031	0.038
AB	5	0.003456	0.000691	0.497	0.7758	0.054
ERROR B	30	0.041708	0.001390			

COMPLETE SPLIT-PLOT AOV						
Corn						
11/02/2016						
YIELD t/ha 150 DP1 TY2 (Data Column 5)						
Source	DF	Sum of Squares	Mean Square	F	Prob.(F)	LSD (.05)
Total	47	60.332953				
R	3	4.415319	1.471773	3.350	0.0320	
A	1	3.300004	3.300004	2.173	0.2369	1.1
ERROR A	3	4.555965	1.518655			
B	5	32.613642	6.522728	14.848	0.0001	0.7
AB	5	2.268746	0.453749	1.033	0.4164	1.0
ERROR B	30	13.179277	0.439309			

COMPLETE SPLIT-PLOT AOV						
Corn						
23/02/2016						
DUAL EM 162 DP1 (Data Column 6)						
Source	DF	Sum of Squares	Mean Square	F	Prob.(F)	LSD (.05)
Total	47	887.844792				
R	3	161.070625	53.690208	4.561	0.0095	
A	1	160.966875	160.966875	5.784	0.0954	4.8
ERROR A	3	83.492292	27.830764			
B	5	83.671042	16.734208	1.422	0.2450	3.5
AB	5	45.524375	9.104875	0.774	0.5764	5.0
ERROR B	30	353.119583	11.770653			

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COMPLETE SPLIT-PLOT AOV						
Corn						
23/02/2016						
PAW mm 162 DP1 (Data Column 7)						
Source	DF	Sum of Squares	Mean Square	F	Prob.(F)	LSD (.05)
Total	47	3142.314792				
R	3	565.800625	188.600208	4.530	0.0098	
A	1	572.010208	572.010208	5.735	0.0963	9.2
ERROR A	3	299.228958	99.742986			
B	5	294.386042	58.877208	1.414	0.2476	6.6
AB	5	161.851042	32.370208	0.777	0.5737	9.3
ERROR B	30	1249.037917	41.634597			

Rating Type

NDVI = Normalized difference vegetation index

ARM Action Codes

T1 = [C1]/3.24

TY2 = 0.7142857*[4]

DAA = Days after Application

Scientific Pest Name		<i>Pratylenchus thornei</i>
Pest Name		Root-lesion Nematode
Rating Date		7/03/2016
Rating Type		COUNT
Rating Unit		Pt/g soil
Plant-Evaluation Interval		175 DP1
ARM Action Codes		AA
Trt No.	Treatment	
1	Low RLN population PAC 727	11.1a
2	Low RLN population PAC 606	5.3b
3	Low RLN population PAC 735	4.0bc
4	Low RLN population P1467	3.6bc
5	Low RLN population P1756	3.7bc
6	Low RLN population P1813IT	2.4c
LSD P=		2.98t
Treatment Prob.(F)=		0.0001

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

Mean separations are based on the complete error term.

t=Mean descriptions are reported in transformed data units, and are not de-transformed.

Mean comparisons performed only when AOV Treatment P (F) is significant at mean comparison OSL.