

Disclaimer:

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Tolerance & Resistance of Soybean to *Pratylenus thornei*

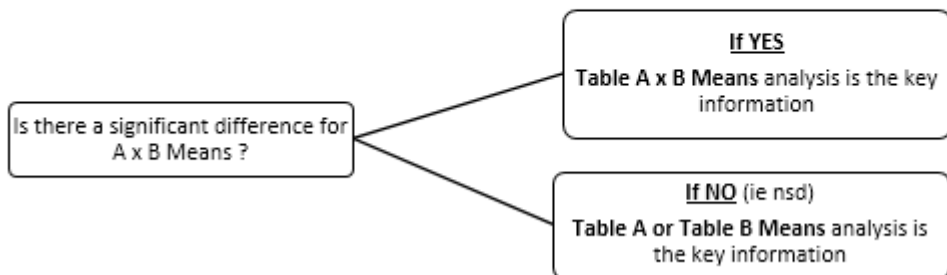
Trial ID: LB1542 Location: Macalister Trial Year: 2015
Investigator: Linda Bailey

Planting Date:	8/12/2015
Row Spacing:	81cm
Planting Equipment:	Small Plot Tyne Planter
Harvest Date:	Not Harvested
Low <i>P thornei</i> (ex-Caparoi 2013):	2.4 Pt/g soil (18/08/2015)
High <i>P thornei</i> (ex-Strzelecki 2013):	29 Pt/g soil (18/08/2015)

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)
Plot Size (Planted):	9 x 2 m (5 rows x 36cm)

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



Tolerance & Resistance of Soybean to *Pratylenchus thornei*

Trial ID: LB1542

Location: Macalister

Trial Year: 2015

Scientific Pest Name				<i>Pratylenchus thornei</i>
Pest Name				Root-lesion Nematode
Crop Name		Soybean	Soybean	
Rating Date		29/12/2015	9/02/2016	7/3/16
Rating Type		EMERGENCE	NDVI	COUNT
Rating Unit		/m ²	RATIO	Pt/g soil
Plant-Evaluation Interval		21 DP1	63 DP1	90 DP1
ARM Action Codes		T1 ET4 ET8	ET4 ET8	AL
Trt No.	Treatment			
TABLE OF A MEANS (Nematode Population)				
1	Low RLN population	5.2-	0.628-	3.4b
2	High RLN population	5.6-	0.647-	24.8a
TABLE OF B MEANS (Variety)				
1	Soya 791	5.4c	0.747b	10.6-
2	Hayman	9.3a	0.852a	9.4-
3	Bunya	7.0b	0.798ab	10.8-
4	Fallow	NA	NA	8.0-
TABLE OF A x MEANS (Nematode Population x Variety)				
1	Low RLN population	4.4-	0.731-	3.5-
1	Soya 791			
2	High RLN population	6.4-	0.763-	28.9-
1	Soya 791			
1	Low RLN population	9.5-	0.856-	3.6-
2	Hayman			
2	High RLN population	9.2-	0.849-	22.3-
2	Hayman			
1	Low RLN population	6.9-	0.773-	4.1-
3	Bunya			
2	High RLN population	7.0-	0.824-	26.5-
3	Bunya			
1	Low RLN population	NA	NA	2.5-
4	Fallow			
2	High RLN population	NA	NA	22.1-
4	Fallow			

NB: Seed of variety 4 did not emerge. *P thornei* count is a bare fallow treatment.

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

Rating Type

NDVI = normalized difference vegetation index

ARM Action Codes

ET4 = Excluded treatment 4

ET8 = Excluded treatment 8

AL = Automatic log transformation of X+1

T1 = [1]/3.24

DP1 = Days after Planting

Tolerance & Resistance of Soybean to *Pratylenchus thornei*

Trial ID: LB1542

Location: Macalister

Trial Year: 2015

COMPLETE SPLIT-PLOT AOV						
Soybean						
29/12/2015						
EMERGENCE /m ² 21 DP1 T1 ET4 ET8						
Source	DF	Sum of Squares	Mean Square	F	Prob.(F)	LSD (.05)
Total	29	421.387322				
R	3	7.914507	2.638169	1.536	0.2437	
A	1	1.529450	1.529450	3.682	0.1508	
ERROR A	3	1.246317	0.415439			
B	3	376.459064	125.486355	73.057	0.0001	1.4
AB	3	6.755512	2.251837	1.311	0.3053	
ERROR B	16	27.482472	1.717655			

COMPLETE SPLIT-PLOT AOV						
Soybean						
9/02/2016						
NDVI RATIO 63 DP1 ET4 ET8						
Source	DF	Sum of Squares	Mean Square	F	Prob.(F)	LSD (.05)
Total	29	2.695999				
R	3	0.051194	0.017065	3.466	0.0412	
A	1	0.003173	0.003173	0.830	0.4295	
ERROR A	3	0.011471	0.003824			
B	3	2.547209	0.849070	172.473	0.0001	0.074
AB	3	0.004186	0.001395	0.283	0.8366	
ERROR B	16	0.078766	0.004923			

COMPLETE SPLIT-PLOT AOV						
<i>Pratylenchus thornei</i> – Root-lesion Nematode						
7/03/2016						
COUNT Pt/g Soil 90 DP1 AL						
Source	DF	Sum of Squares	Mean Square	F	Prob.(F)	LSD (.05)
Total	31	5.264002				
R	3	0.171490	0.057163	4.105	0.0220	
A	1	4.738224	4.738224	1077.660	0.0001	0.1t
ERROR A	3	0.013190	0.004397			
B	3	0.068831	0.022944	1.647	0.2138	
AB	3	0.021586	0.007195	0.517	0.6761	
ERROR B	18	0.250682	0.013927			