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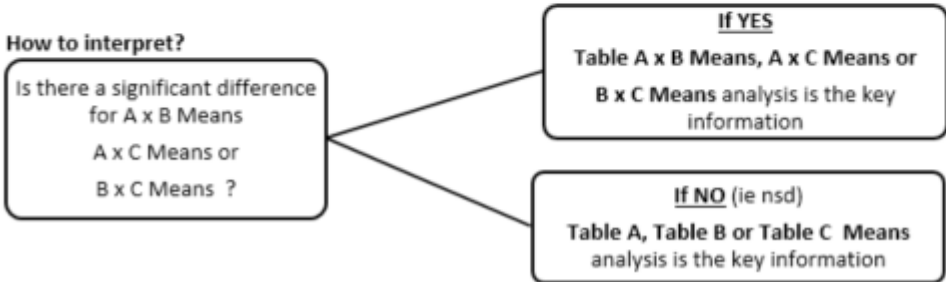
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<h2>Mungbean Nutrition</h2>
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Trial ID: LB1720	Location: Warra	Trial Year: 2017
	Investigator: Linda Bailey	

Objective:	To evaluate the impact of nitrogen application in Mungbean	
Application Date:	29/08/2017	
Application Code:	A	B
Application Depth:	Shallow Placement – Depth 3cm	Deep Placement – Depth 10cm
Planting Date:	12/12/2017	
Planting Depth:	4 cm	
Planting Rate:	27 kg/ha (Target 25 established Plants/m <sup>2</sup> )	
Row Spacing:	32 cm	
Planting Equipment:	Small Plot Planter - Tyne	
Harvest Date:	26/03/2018	
Keywords:	Nitrogen, Mungbean	

	In Simple Terms
Table of A Means:	Mean of 'Nitrogen Placement' performance with ALL 'Nitrogen Rate' treatments and '+/- inoculation' treatments
Table of B Means:	Mean of 'Nitrogen Rate' performance with ALL 'Nitrogen Placement' treatments and '+/- inoculation' treatments
Table of C Means:	Mean of '+/- inoculation' performance with ALL 'Nitrogen Placement' treatments and 'Nitrogen Rate' treatments
Table of A x B Means:	'Nitrogen Placement' performance with EACH 'Nitrogen Rate' treatment
Table of A x C Means:	'Nitrogen Placement' performance with EACH '+/- inoculation' treatment
Table of B x C Means:	'Nitrogen Rate' performance with EACH '+/- inoculation' treatment



**NB: The only interactions that resulted in significant differences were Nitrogen Placement x Nitrogen Rate (A x B) and Nitrogen Placement x Inoculation (A x C Means). AOV tables are presented on the following page for the main effects and the A x B and A x C Means interactions.**

## Mungbean Nutrition

Trial ID: LB1720

Location: Warra

Trial Year: 2017

Crop Name Crop Variety Assessment Date Assessment Type Assessment Unit Crop Stage Majority Plant-Evaluation Interval ARM Action Codes				Mungbean Jade AU			
				29/12/2017 EMERGENCE /m <sup>2</sup> 13 17 DP1 T1	25/01/2018 NDVI Ratio 71 44 DP1	26/03/2018 YIELD t/ha 104 DP1 TY2	3/04/2018 PROTEIN %
Trt No.	Treatment	Nitrogen Rate	Appln. Code				
<b>TABLE OF A MEANS (Nitrogen Placement)</b>							
1	Shallow Placement		A	35-	0.66-	1.88-	16.6-
2	Deep Placement		B	35-	0.65-	1.95-	16.7-
<b>TABLE OF B MEANS (Nitrogen Rate)</b>							
1	Untreated	-		35-	0.66-	1.90-	16.6-
2	Urea	25kg ai/ha		36-	0.66-	1.96-	16.6-
3	Urea	50kg ai/ha		35-	0.65-	1.93-	16.6-
4	Urea	100kg ai/ha		35-	0.65-	1.87-	16.7-
<b>TABLE OF C MEANS (+/- Inoculation)</b>							
1	No Inoculation			36-	0.66a	1.91-	16.6-
2	Rhizobia Inoculation			35-	0.65b	1.92-	16.6-
<b>TABLE OF A x B MEANS (Nitrogen Placement x Nitrogen Rate)</b>							
1	Shallow Placement	-	A	34.8-	0.67-	1.85-	16.7abc
1a	Shallow Placement	25kg ai/ha	A	35.8-	0.67-	1.93-	16.4d
1b	Shallow Placement	50kg ai/ha	A	36.0-	0.65-	1.90-	16.6bcd
1c	Shallow Placement	100kg ai/ha	A	35.0-	0.65-	1.86-	16.6a-d
2	Deep Placement	-	B	34.6-	0.66-	1.96-	16.5cd
2a	Deep Placement	25kg ai/ha	B	35.6-	0.66-	1.99-	16.8ab
2b	Deep Placement	50kg ai/ha	B	34.3-	0.66-	1.96-	16.6a-d
2c	Deep Placement	100kg ai/ha	B	34.4-	0.64-	1.89-	16.8a
<b>TABLE OF A x C MEANS (Nitrogen Placement x Inoculation)</b>							
1	Shallow, No Inoculation		A	36.3-	0.67-	1.87-	16.5b
1a	Shallow + Rhizobia		A	34.5-	0.65-	1.90-	16.6ab
2	Deep, No Inoculation		B	34.8-	0.66-	1.94-	16.7a
2a	Deep + Rhizobia		B	34.6-	0.65-	1.95-	16.6ab

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

## Mungbean Nutrition

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Trial Year: 2017

FACTORIAL/POOLED ERROR AOV						
Mungbean - Jade AU						
29/12/2017						
EMERGENCE /m <sup>2</sup> 13 17 DP1 T1						
Source	DF	Sum of Squares	Mean Square	F	Prob.(F)	LSD (.05)
Total	63	963.745117				
R	3	59.738159	19.912720	1.117	0.3523	
A	1	7.476807	7.476807	0.419	0.5206	2.1
B	3	12.512207	4.170736	0.234	0.8723	3.0
AB	3	6.561279	2.187093	0.123	0.9463	4.3
C	1	16.822815	16.822815	0.943	0.3366	2.1
AC	1	11.024475	11.024475	0.618	0.4358	3.0
BC	3	31.852722	10.617574	0.595	0.6213	4.3
ABC	3	15.373230	5.124410	0.287	0.8342	6.0
ERROR	45	802.383423	17.830743			

FACTORIAL/POOLED ERROR AOV						
Mungbean - Jade AU						
25/01/2018						
NDVI Ratio 71 44 DP1						
Source	DF	Sum of Squares	Mean Square	F	Prob.(F)	LSD (.05)
Total	63	0.050716				
R	3	0.016855	0.005618	12.240	0.0001	
A	1	0.001151	0.001151	2.507	0.1203	0.011
B	3	0.003756	0.001252	2.727	0.0551	0.015
AB	3	0.000556	0.000185	0.404	0.7509	0.022
C	1	0.002586	0.002586	5.633	0.0220	0.011
AC	1	0.000717	0.000717	1.562	0.2179	0.015
BC	3	0.001926	0.000642	1.399	0.2555	0.022
ABC	3	0.002513	0.000838	1.825	0.1562	0.031
ERROR	45	0.020656	0.000459			

FACTORIAL/POOLED ERROR AOV						
Mungbean - Jade AU						
26/03/2018						
YIELD t/ha 104 DP1 TY2						
Source	DF	Sum of Squares	Mean Square	F	Prob.(F)	LSD (.05)
Total	63	2.313818				
R	3	0.703174	0.234391	7.758	0.0003	
A	1	0.062500	0.062500	2.069	0.1573	0.09
B	3	0.066646	0.022215	0.735	0.5365	0.12
AB	3	0.012896	0.004299	0.142	0.9341	0.18
C	1	0.003342	0.003342	0.111	0.7410	0.09
AC	1	0.001077	0.001077	0.036	0.8511	0.12
BC	3	0.065598	0.021866	0.724	0.5431	0.18
ABC	3	0.039045	0.013015	0.431	0.7319	0.25
ERROR	45	1.359541	0.030212			

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<b>FACTORIAL/POOLED ERROR AOV</b> <b>Mungbean - Jade AU</b> <b>3/04/2018</b> <b>PROTEIN %</b>						
Source	DF	Sum of Squares	Mean Square	F	Prob.(F)	LSD (.05)
Total	63	5.797344				
R	3	0.499219	0.166406	2.295	0.0906	
A	1	0.213906	0.213906	2.950	0.0928	0.1
B	3	0.239219	0.079740	1.100	0.3592	0.2
AB	3	0.965469	0.321823	4.438	0.0081	0.3
C	1	0.003906	0.003906	0.054	0.8175	0.1
AC	1	0.406406	0.406406	5.604	0.0223	0.2
BC	3	0.155469	0.051823	0.715	0.5484	0.3
ABC	3	0.050469	0.016823	0.232	0.8736	0.4
ERROR	45	3.263281	0.072517			

Assessment Type

NDVI = Normalized difference vegetation index

Crop Stage Majority

13 = 3rd True leaf (first trifoliolate leaf) unfolded

71 = 10% of pods have reached typical length (beginning of pod development)

ARM Action Codes

T1 = [C1]/1.28

TY2 = 0.625\*[4]

DP1 = Days after Planting

Application Description		
	A	B
Application Date:	29/08/2017	
Application Method:	DRILLED	
Application Placement:	3 cm Depth	10 cm Depth