

Disclaimer:

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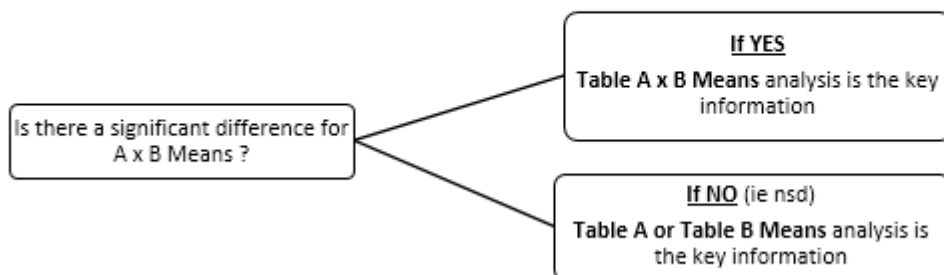
N Management in Wheat 2016 – Macalister: Rate x Timing Factorial

Trial ID: LB1601	Location: Macalister	Trial Year: 2016
Factorial Rate x Timing	Investigator: Linda Bailey	

Planting Date:	22/07/2016		
Planting Equipment:	Small Plot Planter		
Row Spacing:	32cm		
Target Plant Population:	100 Plants /m ²		
Application Code:	A	C	E
Application Date:	7/12/2015	29/02/2016	22/07/2016
Target/Stage:	Spread & Incorp. Dec	Spread & Incorp. Feb	Spread & IBS
Harvest Date:	25/11/2016		

Trial designed as a Randomised Complete Block and analysed as a Factorial

	In Simple Terms
Table of A Means:	Mean of 'RATE' performance with ALL 'TIMING OF APPLICATION' treatments
Table of B Means:	Mean of 'TIMING OF APPLICATION' performance with ALL 'RATE' treatments
Table of A x B Means:	'RATE' performance with EACH 'TIMING OF APPLICATION' treatment



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Trial ID: LB1601

Location: Macalister

Trial Year: 2016

Crop Name			Wheat		
Crop Variety			Suntop		
Assessment Date			10/08/2016	20/10/2016	25/11/2016
Assessment Type			EMERGENCE	NDVI	YIELD
Assessment Unit			/m ²	RATIO	t/ha
Plant-Evaluation Interval			19 DP1	90 DP1	126 DP1
CV %					7.8
ARM Action Codes			T1		TY2
Trt No.	Treatment	Appln. Code			
TABLE OF A MEANS (Rate)					
1	Urea 50 kg N/ha		70.3-	0.760-	3.06-
2	Urea 100 kg N/ha		73.0-	0.773-	3.03-
3	Urea 200 kg N/ha		77.0-	0.779-	2.98-
TABLE OF B MEANS (Timing)					
1	December	A	74.9a	0.764-	3.00ab
2	February	C	79.0a	0.783-	3.17a
3	Planting	E	66.3b	0.765-	2.90b
TABLE OF A x MEANS (Rate x Timing)					
1	Urea 50 kg N/ha December	A	68.2-	0.762-	3.08-
2	Urea 100 kg N/ha December	A	78.1-	0.767-	3.11-
3	Urea 200 kg N/ha December	A	78.3-	0.763-	2.81-
1a	Urea 50 kg N/ha February	C	77.0-	0.767-	3.16-
2a	Urea 100 kg N/ha February	C	77.3-	0.788-	3.15-
3a	Urea 200 kg N/ha February	C	82.8-	0.793-	3.22-
1b	Urea 50 kg N/ha Planting	E	65.6-	0.751-	2.96-
2b	Urea 100 kg N/ha Planting	E	63.7-	0.764-	2.83-
3b	Urea 200 kg N/ha Planting	E	69.7-	0.781-	2.91-

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

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Trial ID: LB1601

Location: Macalister

Trial Year: 2016

Crop Name Crop Variety Assessment Date Assessment Type Assessment Unit ARM Action Codes			Wheat Suntop			
			12/12/2016 PROTEIN %	12/12/2016 TEST WEIGHT kg/hL	12/12/2016 SCREENING %	12/12/2016 N RECOVERY kg N/ha T3
Trt No.	Treatment	Appln. Code				
TABLE OF A MEANS (Rate)						
1	Urea 50 kg N/ha		11.8b	78.3-	9.9b	63.5-
2	Urea 100 kg N/ha		12.6a	78.2-	10.9a	66.9-
3	Urea 200 kg N/ha		12.8a	78.1-	10.8a	66.9-
TABLE OF B MEANS (Timing)						
1	December	A	12.3b	77.9-	10.4-	64.6b
2	February	C	12.4ab	78.1-	10.5-	69.0a
3	Planting	E	12.6a	78.6-	10.7-	63.6b
TABLE OF A x B MEANS (Rate x Timing)						
1	Urea 50 kg N/ha December	A	11.8-	78.1-	9.9-	63.9-
2	Urea 100 kg N/ha December	A	12.6-	77.9-	10.9-	68.4-
3	Urea 200 kg N/ha December	A	12.5-	77.5-	10.4-	61.6-
1a	Urea 50 kg N/ha February	C	11.8-	78.4-	9.4-	64.9-
2a	Urea 100 kg N/ha February	C	12.7-	77.8-	11.3-	69.8-
3a	Urea 200 kg N/ha February	C	12.9-	78.0-	10.8-	72.3-
1b	Urea 50 kg N/ha Planting	E	11.9-	78.3-	10.5-	61.6-
2b	Urea 100 kg N/ha Planting	E	12.7-	78.8-	10.5-	62.6-
3b	Urea 200 kg N/ha Planting	E	13.1-	78.8-	11.2-	66.7-

Assessment Type

NDVI = Normalized difference vegetation index

N RECOVERY = Nitrogen Recovery in grain

ARM Action Codes

ET17 = Excluded treatment 17

T1 = [C1]/1.28

TY2 = 0.8333333*[C4]

T3 = [C5]*[C6]*1.75

DP1 = Days after Planting

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Location: Macalister

Trial Year: 2016

COMPLETE FACTORIAL AOV Wheat - Suntop 10/08/2016 EMERGENCE /m² 19 DP1 T1						
Source	DF	Sum of Squares	Mean Square	F	Prob.(F)	LSD (.05)
Total	34	3678.242248				
R	3	254.471390	84.823797	0.981	0.4190	
A	2	270.604263	135.302132	1.564	0.2307	7.9
B	2	1005.840537	502.920268	5.815	0.0090	7.9
AB	4	158.043379	39.510845	0.457	0.7665	13.6
ERROR	23	1989.282679	86.490551			

COMPLETE FACTORIAL AOV Wheat - Suntop 20/10/2016 NDVI RATIO 90 DP1						
Source	DF	Sum of Squares	Mean Square	F	Prob.(F)	LSD (.05)
Total	34	0.017027				
R	3	0.000465	0.000155	0.341	0.7958	
A	2	0.002309	0.001155	2.539	0.1008	0.018
B	2	0.002713	0.001356	2.983	0.0705	0.018
AB	4	0.001081	0.000270	0.594	0.6703	0.031
ERROR	23	0.010459	0.000455			

COMPLETE FACTORIAL AOV Wheat - Suntop 25/11/2016 YIELD t/ha 126 DP1 TY2						
Source	DF	Sum of Squares	Mean Square	F	Prob.(F)	LSD (.05)
Total	34	2.333229				
R	3	0.185244	0.061748	1.005	0.4084	
A	2	0.042272	0.021136	0.344	0.7125	0.21
B	2	0.472480	0.236240	3.846	0.0362	0.21
AB	4	0.220307	0.055077	0.897	0.4820	0.36
ERROR	23	1.412927	0.061432			

COMPLETE FACTORIAL AOV Wheat - Suntop 12/12/2016 PROTEIN % 143 DP1						
Source	DF	Sum of Squares	Mean Square	F	Prob.(F)	LSD (.05)
Total	34	9.935432				
R	3	0.372963	0.124321	1.449	0.2546	
A	2	6.800247	3.400123	39.622	0.0001	0.2
B	2	0.367469	0.183735	2.141	0.1404	0.2
AB	4	0.421049	0.105262	1.227	0.3270	0.4
ERROR	23	1.973704	0.085813			

N Management in Wheat 2016 – Macalister: Rate x Timing Factorial

Trial ID: LB1601

Location: Macalister

Trial Year: 2016

COMPLETE FACTORIAL AOV						
Wheat - Suntop						
12/12/2016						
TEST WEIGHT kg/hL 143 DP1						
Source	DF	Sum of Squares	Mean Square	F	Prob.(F)	LSD (.05)
Total	34	50.372099				
R	3	3.988889	1.329630	0.762	0.5271	
A	2	0.217469	0.108735	0.062	0.9398	1.1
B	2	3.928580	1.964290	1.125	0.3418	1.1
AB	4	2.089383	0.522346	0.299	0.8754	1.9
ERROR	23	40.147778	1.745556			

COMPLETE FACTORIAL AOV						
Wheat - Suntop						
12/12/2016						
SCREENING % 143 DP1						
Source	DF	Sum of Squares	Mean Square	F	Prob.(F)	LSD (.05)
Total	34	32.300218				
R	3	4.030468	1.343489	1.864	0.1638	
A	2	6.393919	3.196960	4.436	0.0235	0.7
B	2	0.718086	0.359043	0.498	0.6140	0.7
AB	4	4.583522	1.145880	1.590	0.2107	1.2
ERROR	23	16.574224	0.720618			

COMPLETE FACTORIAL AOV						
Wheat - Suntop						
12/12/2016						
N RECOVERY kg N/ha 143 DP1 T3						
Source	DF	Sum of Squares	Mean Square	F	Prob.(F)	LSD (.05)
Total	34	1230.401176				
R	3	47.258967	15.752989	0.505	0.6824	
A	2	95.364341	47.682170	1.530	0.2378	4.7
B	2	194.318874	97.159437	3.117	0.0634	4.7
AB	4	176.617569	44.154392	1.417	0.2600	8.2
ERROR	23	716.841426	31.167019			

Application Description							
	A	B	C	D	E	F	G
Application Date:	7/12/2015	7/12/2015	29/02/2016	29/02/2016	22/07/2016	22/07/2016	26/09/2016
Application Method:	SPREAD	SPREAD	SPREAD	SPREAD	SPREAD	SPREAD	SPREAD
Application Timing:	DECEMBER	DECEMBER	FEBRUARY	FEBRUARY	IBS	PSPE	GS30
Application Placement:	INCORPN	SURFACE	INCORP	SURFACE	INCORPN	TOPDRESS	TOPDRESS
Next Moisture Occurred On:	12/12/2015 – 14.2mm	12/12/2015 – 14.2mm	19/03/2016 – 1.2mm	19/03/2016 – 1.2mm	3/08/2016 – 8.6mm	3/08/2016 – 8.6mm	4/10/2016 – 10.6mm

Application Equipment							
	A	B	C	D	E	F	G
Application Equipment:	PLANTER	SPREAD	PLANTER	SPREAD	PLANTER	SPREAD	SPREAD
Equipment Type:	SMALL PLOT PLANTER	MANUAL	SMALL PLOT PLANTER	MANUAL	SMALL PLOT PLANTER	MANUAL	