

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.

Management of Chickpea Podset & Yield

Trial ID: **BD1805** Location: **Narrabri** Trial Year: **2018**
 Investigator: **Branko Duric**

Objective:	To evaluate the potential of Potassium fertiliser or plant growth regulators for biomass management and yield in chickpea	
Application:	A	B
Application Date:	17/08/2018	10/09/2018
Growth Stage at Application:	False Flowering	Start of Flowering
Application Volume:	100 L/ha	
Application Nozzles:	AIXR110015	
Planting Date:	6/06/2018 with Commercial Tyne Planter on 32cm row spacing at a depth of ~6cm	
Harvest Date:	27/11/2018	
Harvest Equipment:	Small Plot Header	
Soil Type:	Grey cracking clay	
Potassium Levels:	Colwell: 0-10cm 539 mg/kg, 10-30cm 282 mg/kg Na/K meq/100g: 0-10cm 0.5, 10-30cm 1.5	
Keywords:	Chickpea, Yield	

Trial designed and analysed as a Factorial

	In Simple Terms
Table of A Means:	Mean of 'Product' performance with ALL 'Timing' treatments
Table of B Means:	Mean of 'Timing' performance with ALL 'Product' treatments
Table of A x B Means:	'Product' performance with EACH 'Timing' treatment

Is there a significant difference for A x B Means ?

If YES

Table A x B Means analysis is the key information

If NO (ie nsd)

Table A or Table B Means analysis is the key information

Management of Chickpea Podset & Yield

Trial ID: BD1805

Location: Narrabri

Trial Year: 2018

Crop Name Crop Variety Assessment Date Assessment Type Assessment Unit Plant-Evaluation Interval Treatment-Evaluation Interval ARM Action Codes				Chickpea PBA Seamer 27/11/2018 YIELD t/ha 174 DP1 102 DAA TY1
Trt No.	Treatment	Product Rate	Appl. Code	
TABLE OF A MEANS (Product)				
1	Untreated	-		3.51-
2	Yara K-Flow 3-0-9	30000ml/ha		3.52-
3	Super K 30	1000ml/ha		3.48-
4	KNO3	9400g/ha		3.39-
5	Lokomotive	5000ml/ha		3.56-
6	Broadstrike	25g/ha		3.31-
7	Experimental PGR 1	500ml/ha		3.58-
7	Uptake	0.5% v/v		
8	Experimental PGR 2	150mg/l		3.59-
TABLE OF B MEANS (Timing)				
1	False Flowering		A	3.47-
2	Start of Flowering		B	3.51-
TABLE OF A x B MEANS (Product x Timing)				
1	Untreated	-	A	3.42-
1a	Untreated	-	B	3.60-
2	Yara K-Flow 3-0-9	30000ml/ha	A	3.42-
2a	Yara K-Flow 3-0-9	30000ml/ha	B	3.61-
3	Super K 30	1000ml/ha	A	3.45-
3a	Super K 30	1000ml/ha	B	3.52-
4	KNO3	9400g/ha	A	3.32-
4a	KNO3	9400g/ha	B	3.45-
5	Lokomotive	5000ml/ha	A	3.63-
5a	Lokomotive	5000ml/ha	B	3.50-
6	Broadstrike	25g/ha	A	3.38-
6a	Broadstrike	25g/ha	B	3.23-
7	Experimental PGR 1	500ml/ha	A	3.64-
	Uptake	0.5% v/v		
7a	Experimental PGR 1	500ml/ha	B	3.51-
	Uptake	0.5% v/v		
8	Experimental PGR 2	150mg/l	A	3.54-
8a	Experimental PGR 2	150mg/l	B	3.65-

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

FACTORIAL/POOLED ERROR AOV						
Chickpea - PBA Seamer						
27/11/2018						
YIELD t/ha 174 DP1 TY1						
Source	DF	Sum of Squares	Mean Square	F	Prob.(F)	LSD (.05)
Total	62	1.190478				
R	3	0.203450	0.067817	4.064	0.0124	
A	7	0.131354	0.018765	1.124	0.3653	0.13
B	1	0.003484	0.003484	0.209	0.6500	0.07
AB	7	0.117947	0.016850	1.010	0.4376	0.18
ERROR	44	0.734242	0.016687			

Management of Chickpea Podset & Yield

Trial ID: **BD1805**Location: **Narrabri**Trial Year: **2018**ARM Action Codes

TY1 = 0.5*[1]

DP1 = Days after Planting

DAA = Days after Application A

Conclusions:

This trial was conducted to screen fertiliser and PGR products for effects on pod set and yield in chickpea (cv. Seamer), with products evaluated when applied at false flower and also when delayed by 3 ½ weeks. The trial was conducted at PBI Narrabri under irrigated conditions.

A visual assessment was conducted ~14 days after each application. The only treatments that provided any visual difference were Experimental PGR 1 and Broadstrike, at both application timings. Experimental PGR 1 created a more uniform and level crop canopy. Broadstrike resulted in low to moderate levels of chlorosis.

Under these conditions there was no significant impact on yield from any product, at either timing.

Application Description		
	A	B
Application Date:	17/08/2018	10/09/2018
Appl. Start Time:	1:30 PM	12:30 PM
Appl. Stop Time:	3:30 PM	2:00 PM
Application Method:	SPRAY	
Application Timing:	False Flowering	Start of Flowering
Application Placement:	FOLIAR	
Air Temperature, Unit:	23 C	26 C
% Relative Humidity:	26	31
Wind Velocity, Unit:	1.7 m/s	3.4 m/s
Wind Direction:	SW	
Dew Presence (Y/N):	No	
% Cloud Cover:	0	

Crop Stage at Each Application			
	A		B
Crop:	Chickpea		
Stage Scale Used:	GRDC		GRDC
Stage Majority, %:	False flowering 07 R0	95%	Start Flowering 08 R1 95%
Height, Unit:	20 cm		

Application Equipment		
	A	B
Operation Pressure, Unit:	300 kPa	
Nozzle Type:	AIXR	
Nozzle Size:	110015	
Nozzle Spacing, Unit:	50 cm	
Boom Length, Unit:	4 m	
Boom Height, Unit:	50 cm	
Ground Speed, Unit:	7.2 km/h	
Carrier:	WATER	
Spray Volume, Unit:	100 L/ha	