Wild Oat Management in Chickpeas

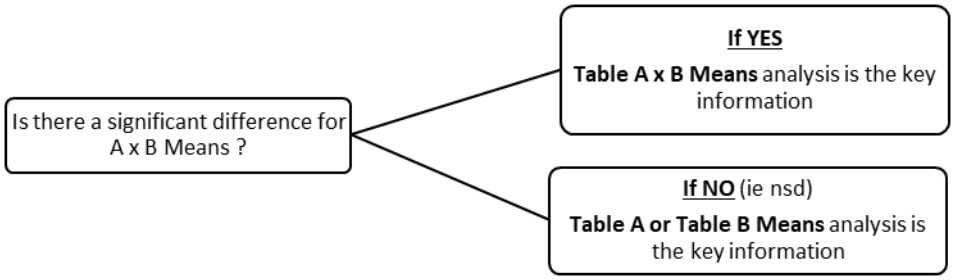
Trial ID: **LB1901** **Location:** **Condamine** **Trial Year:** **2019**
Investigator: **Linda Bailey**

Objective:	**To evaluate the impact of soil levelling post-planting on wild oat efficacy and crop safety in chickpeas**
Application Date:	**30/05/2019**
Nozzles:	**AIXR110015**
Volume:	**100 L/ha**
Application Timing:	**Pre-plant with incorporation by sowing (IBS) 2 days later using commercial tyne planter**
Planting Date:	**01/06/2019**
Variety:	**PBA Seamer**
Planting:	**Moisture seeking, seed at ~5-10cm depth**
Row Spacing:	**30cm**
Levelling Method:	**Commercial prickle harrows**
Keywords:	**Residuals, Chickpeas**

NB: Trial designed and analysed as a Strip Plot

	In Simple Terms
Table of A Means:	Mean of 'Herbicide' performance with **ALL** 'Levelling' treatments
Table of B Means:	Mean of 'Levelling' performance with **ALL** 'Herbicide treatments
Table of A x B Means:	'Herbicide' performance with **EACH** 'Levelling' treatment

How to interpret?



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Crop Name			**Chickpea**
Crop Variety			**PBA Seamer**
Assessment Date			**24/07/2019**
Assessment Type			**EMERGENCE**
Assessment Unit			**/m²**
Crop Stage Majority			**12 Nodes**
Treatment-Evaluation Interval			**53 DAP**
ARM Action Codes			**T1**
Trt No.	**Treatment**	**Product Rate**	
TABLE OF A MEANS (Herbicide)			
1	Untreated	-	24.0-
2	Sakura	118 g/ha	28.8-
3	Boxer Gold	2500 ml/ha	23.9-
4	Experimental Gp K B	1800 ml/ha	19.9-
5	Avadex Xtra	1600 ml/ha	25.6-
6	TriflurX	1700 ml/ha	24.3-
7	Avadex Xtra TriflurX	1600 ml/ha 1700 ml/ha	27.2-
8	Outlook	1000 ml/ha	24.4-
9	Rustler	1000 ml/ha	22.2-
10	Bladex	2200 g/ha	24.0-
11	Rifle 440	2500 ml/ha	26.1-
12	Terbyne Xtreme	1200 g/ha	21.9-
TABLE OF B MEANS (Levelling)			
1	Unlevelled		24.0-
2	Levelled		24.7-
TABLE OF A x B MEANS (Herbicide x Levelling)			
1	Untreated, Unlevelled	-	21.4-
1a	Untreated, Levelled	-	26.7-
2	Sakura, Unlevelled	118g/ha	28.9-
2a	Sakura, Levelled	118g/ha	28.6-
3	Boxer Gold, Unlevelled	2500ml/ha	23.1-
3a	Boxer Gold, Levelled	2500ml/ha	24.7-
4	Experimental Gp K B, Unlevelled	1800ml/ha	20.3-
4a	Experimental Gp K B, Levelled	1800ml/ha	19.4-
5	Avadex Xtra, Unlevelled	1600ml/ha	26.1-
5a	Avadex Xtra, Levelled	1600ml/ha	25.0-
6	TriflurX, Unlevelled	1700ml/ha	23.1-
6a	TriflurX, Levelled	1700ml/ha	25.6-

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

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Assessment Date			**24/07/2019**
Assessment Type			**EMERGENCE**
Assessment Unit			**/m²**
Crop Stage Majority			**12 Nodes**
Treatment-Evaluation Interval			**53 DAP**
ARM Action Codes			**T1**
Trt No.	**Treatment**	**Product Rate**	
7	Avadex Xtra, Unlevelled TriflurX, Unlevelled	1600ml/ha 1700ml/ha	27.2-
7a	Avadex Xtra, Levelled TriflurX, Levelled	1600ml/ha 1700ml/ha	27.2-
8	Outlook, Unlevelled	1000ml/ha	26.9-
8a	Outlook, Levelled	1000ml/ha	21.9-
9	Rustler, Unlevelled	1000ml/ha	21.1-
9a	Rustler, Levelled	1000ml/ha	23.3-
10	Bladex, Unlevelled	2200g/ha	23.6 -
10a	Bladex, Levelled	2200g/ha	24.4-
11	Rifle 440, Unlevelled	2500ml/ha	27.5 -
11a	Rifle 440, Levelled	2500ml/ha	24.7-
12	Terbyne Xtreme, Unlevelled	1200g/ha	24.7-
12a	Terbyne Xtreme, Levelled	1200g/ha	19.2-

COMPLETE STRIP-BLOCK AOV
Chickpea cv. PBA Seamer
24/07/2019
EMERGENCE /m² 06 V12 53 DAP T1

Source	DF	Sum of Squares	Mean Square	F	Prob.(F)	LSD (.05)
Total	71	1750.684799				
R	2	6.095679	3.047840	0.116	0.8912	
A	11	378.346836	34.395167	1.224	0.3285	6.3
RA	22	617.978395	28.089927			
B	1	8.111497	8.111497	2.310	0.2679	1.9
RB	2	7.021605	3.150802			
AB	12	154.041281	14.003753	0.532	0.8607	8.7
RAB	22	579.089506	26.322250			

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DAP = Days after Planting

Conclusions:

This trial was established to evaluate the pre-emergent control of wild oats in chickpea, the impact of levelling on herbicide efficacy and the impact of pre-emergent herbicides on the efficacy of post-emergent herbicide applications. The pre-emergent herbicides were applied on 31/05/19, just prior to sowing on 01/06/19 and levelling on 03/06/19.

At 53 days after planting, there were no significant differences in chickpea establishment due to the pre-emergent herbicides or the unlevelled/levelled treatment.

There was no wild emergence in the dry conditions experienced. No data was able to be generated on wild oat management and no post-emergent herbicides were applied.

Crop Description	
Crop:	**Chickpea**
Variety:	**PBA Seamer**
Planting Date:	**1/06/2019**
Planting Method:	**Direct Drilled**
Planting Equipment:	**TYNE**
Row Spacing, Unit:	**30 cm**

Application Description	
Application Date:	**30/05/2019**
Application Start Time:	**3:30 PM**
Application Stop Time:	**5:30 PM**
Application Timing:	**IBS**
Application Placement:	**SOIL**
Air Temperature, Unit:	**19 C**
% Relative Humidity:	**37**
Wind Velocity, Unit:	**5.4 km/h**
Wind Direction:	**SW**
Dew Presence (Y/N):	**No**
Soil Moisture:	**DRY**
% Cloud Cover:	**50**
Next Moisture Occurred On:	**3/06/2019**

Applicant Equipment	
Applicant Equipment:	**Polaris**
Equipment Type:	**BOOM**
Operation Pressure, Unit:	**300 kPa**
Nozzle Type and Size:	**AIXR 110015**
Boom Height, Unit:	**60 cm**
Ground Speed, Unit:	**7.2 km/h**
Spray Volume, Unit:	**100 L/ha**