SAGI statistical analysis (Predicted values for Yield, test weight and oil content)
The following statistical analysis of key harvest assessments has been carried out by SAGI. This analysis uses spatial statistical analysis to refine predicted values for key assessment values.

Table 1: Harvest Traits for the Treatments

Treatment	Grain Yield (%)	Test Weight (kg/hL)	Oil (%)
Treatment 1	3.91 ± 0.09 -	65.4 ± 0.36 -	46.85 ± 0.42 -
Treatment 2	3.78 ± 0.09 -	65.34 ± 0.37 -	46.43 ± 0.42 -
Treatment 3	3.85 ± 0.09 -	66.35 ± 0.36 -	46.85 ± 0.41 -
Treatment 4	3.91 ± 0.09 -	65.73 ± 0.36 -	46.41 ± 0.41 -
Treatment 5	4 ± 0.09 -	65.77 ± 0.36 -	46.51 ± 0.41 -
Treatment 6	3.96 ± 0.09 -	66.01 ± 0.36 -	46.88 ± 0.41 -
Treatment 7	3.96 ± 0.09 -	65.46 ± 0.36 -	46.75 ± 0.41 -
Treatment 8	4 ± 0.09 -	65.91 ± 0.36 -	45.96 ± 0.42 -
Treatment 9	3.96 ± 0.09 -	66.29 ± 0.36 -	46.88 ± 0.41 -
Treatment 10	3.97 ± 0.09 -	65.71 ± 0.36 -	46.76 ± 0.41 -
Treatment 11	3.89 ± 0.09 -	66.04 ± 0.36 -	46.92 ± 0.41 -
Treatment 12	4.1 ± 0.09 -	65.51 ± 0.36 -	46.78 ± 0.41 -
Treatment 13	3.94 ± 0.09 -	65.42 ± 0.36 -	46.71 ± 0.41 -

Note: values expressed as mean ± standard error of prediction
- no subscripts relevant for this response

A summary of the experiment statistics is below:

Table 2: Key statistics for each response analysed

Statistic	Grain Yield (%)	Test Weight (kg/hL)	Oil (%)
LSD	0.255	0.853	1.147
Mean	3.900	65.800	46.700
Treatment_p-value	0.657	0.223	0.935
CV	4.518	1.184	1.704

Trial 6. Influence of Plant Growth Regulation on Canola Yield and Profitability under Irrigation

Project objective: To examine whether experimental PGR (not commercially approved) application has any yield benefit in irrigated canola at different plant populations

The GRDC Optimising Irrigated Grains Project is a collaborative project including the following project partners:

Location: Finley IRC
FAR Code: C21-09-1
Sown: 30th April 2021
Cultivar: HyTTec® Trophy
Harvested: 4th December 2021
Rotation position: Wheat (2020), Wheat (2019), Faba Beans (2018)
Soil Management: Wheat stubble incorporated with speed disc in Autumn
Irrigation: Surface irrigation, 3 applications totalling 289mm
GSR: April-October 192mm. Total water available 481mm
Available Soil N: 110 kg/ha (0-90cm)

Key Messages:

- *Experimental PGR management (based on a gibberellin inhibitor) in irrigated canola resulted in significant differences in crop canopy height but no significant effect on seed yield irrespective of plant population.*
- *Reducing plant population did significantly reduce crop height at 80% flowering, however there was no difference in crop height at harvest due to plant population.*
- *The highest seedrate 100seeds/m^2 of the TT hybrid produced significantly higher yields than lower seedrates when the effects of PGR treatments were averaged.*
- *There was no benefit in harvested seed yield although the canopy was more suitable for direct heading due to its shorter stature at harvest.*

Table 1. Influence of PGR application and different plant populations on the seed yield (t/ha) of HyTTec® Trophy.

	Seed Rate			
	20 seeds/m^2	60 seeds/m^2	100 seeds/m^2	Mean
	Yield t/ha	**Yield t/ha**	**Yield t/ha**	**Yield t/ha**
Untreated	2.13 -	3.03 -	3.16 -	2.77 -
FAR PGR21/2 @ GB	1.61 -	2.86 -	3.53 -	2.67 -
FAR PGR21/1 @ GB FAR PGR21/2 @ YB	2.50 -	3.09 -	3.39 -	2.99 -
Mean	2.08 c	2.99 b	3.36 a	

Seed Rate	**LSD P=0.05**	0.29	**P val**	<0.001
PGR Strategy	**LSD P=0.05**	ns	**P val**	0.312
Seed Rate x PGR	**LSD P=0.05**	ns	**P val**	0.054

Released: 27 Sept 2022

The GRDC Optimising Irrigated Grains Project is a collaborative project including the following project partners:

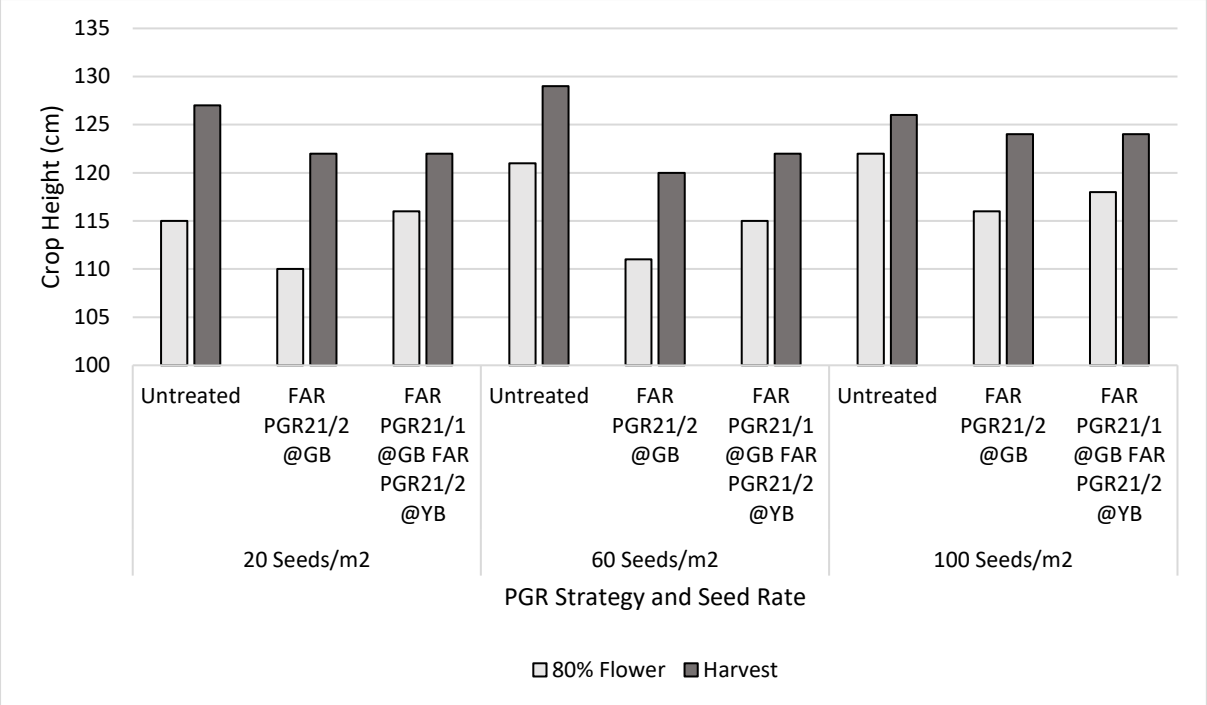

Figure 1. Influence of seed rate and PGR strategy on crop height at 80% flower and harvest.

SAGI statistical analysis (Predicted values for Yield, test weight and oil content)

The following statistical analysis of key harvest assessments has been carried out by SAGI. This analysis uses spatial statistical analysis to refine predicted values for key assessment values.

Table 1: Harvest Traits for the Treatments

PGR	SeedingRate	Grain Yield (t/ha)	Test Weight (kg/hL)	Oil (%)
PGR 1	SeedRate 1	2.15 ± 0.23 -	60.5 ± 0.42 - abc	44 ± 0.63 -
PGR 2	SeedRate 1	1.62 ± 0.23 -	59.52 ± 0.42 - a	43.34 ± 0.63 -
PGR 3	SeedRate 1	2.5 ± 0.23 -	61.69 ± 0.42 - bc	45.12 ± 0.63 -
PGR 1	SeedRate 2	3.02 ± 0.23 -	60.33 ± 0.42 - ab	45.92 ± 0.63 -
PGR 2	SeedRate 2	2.85 ± 0.23 -	61.82 ± 0.42 - bc	45.57 ± 0.63 -
PGR 3	SeedRate 2	3.09 ± 0.23 -	62.29 ± 0.42 - bc	45.97 ± 0.63 -
PGR 1	SeedRate 3	3.17 ± 0.23 -	61.57 ± 0.42 - abc	45.26 ± 0.63 -
PGR 2	SeedRate 3	3.55 ± 0.23 -	62.48 ± 0.42 - c	45.63 ± 0.63 -
PGR 3	SeedRate 3	3.42 ± 0.23 -	62.38 ± 0.42 - bc	45.32 ± 0.63 -

Note: values expressed as mean ± standard error of prediction
- no subscripts relevant for this response

A summary of the experiment statistics is below:

Table 2: Key statistics for each response analysed

Statistic	Grain Yield (t/ha)	Test Weight (kg/hL)	Oil (%)
LSD	0.500	1.200	1.800
Mean	2.800	61.400	45.100
PGR_p-value	0.305	0.048	0.591
SeedingRate_p-value	0.000	0.000	0.006
Interaction_p-value	0.065	0.018	0.515
CV	25.685	2.031	3.167

The GRDC Optimising Irrigated Grains Project is a collaborative project including the following project partners: