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2025 HBS CEREAL VARIETY TRIALS

Beelbangera & Hillston

INDEPENDENT AGRONOMY ADVICE + CUTTING EDGE RESEARCH

Evaluating wheat, barley, triticale & oat varieties under local conditions

KEY POINTS

- **2025 was a relatively dry season as drought conditions strengthened, with warmer, windy days and frosts experienced throughout winter and spring. The Beelbangera site received 144mm of fallow rain, from November to the end of March, and 166.5 mm growing season rainfall, with 76 mm of this rainfall falling from mid-September.**
- **The season did not favour the longer season wheat and barley varieties at Beelbangera with the winter red wheats RGT Cesario and Anapurna the lowest yielding varieties in the wheat trial and Newton the lowest yielding variety in the barley trial. Standout performers in the wheat trial were Calibre and the lined varieties IGW6955, 19Q3H0499 and 19Q3H0393 all yielding over 7.2 t/ha. In the barley trial RGT Planet, RP21011 and Combat were the highest yielding varieties yielding over 7.5 t/ha. In the oat trial Bannister and Goldie were the top performers yielding over 6.5 t/ha.**
- **At Hillston both the wheat and barley trials were watered up and irrigated 3 times in the spring. The longer season wheats Anapurna, RGT Enebro, Triple 2 and the durum wheat varieties Patron and AGT-Rimfire were the standout performers in the wheat trial yielding over 12 t/ha. In the barley trial the top performer was Neo CL yielding 12.1 t/ha.**
- **At Beelbangera the average grain protein of the wheat trial was 11.97%, the barley trial was 13.73% and the oat trial was 11.72%. The average grain protein of the Hillston wheat trial was 11.76% and the barley trial was 13.16%. In both trials, lower-yielding varieties tended to have higher grain proteins.**

BACKGROUND

Variety selection is important for maximising yield and managing disease, with growers seeking profitable varieties to grow that are suited to local farming systems. Our collaboration with Hart Bros Seeds (HBS) aims to evaluate the performance, in terms of yield and quality, of currently grown varieties alongside numbered lines and newly released varieties suited to our local environment.

In 2025 separate wheat and barley variety trials were conducted at 2 sites, Beelbangera (dryland) and Hillston (irrigated). In addition, an oat variety trial was conducted at the dryland site only. These trials were designed to complement the nearest National Variety Trials (NVT) in the area, with varieties selected for their relevance and suitability to local dryland and irrigation conditions. Results from these trials should be considered alongside long-term MET analysis from NVT, as it is important not to rely solely on data from a single trial in a single year when making decisions on new varieties.

The wheat and barley variety trials had 54 and 22 entries respectively at both the Beelbangera dryland and Hillston irrigated sites, table 1. There were 10 entries in the oat variety trial at the Beelbangera dryland site. Of the 54 wheat entries there were 4 new releases and 9 numbered lines and of the 22 barley entries there were 4 new releases, 3 numbered lines and 1 triticale variety.

The newly released varieties included in the trials were:

Wheat

AGT-Rio: Similar maturity to Rockstar and Catapult with improved stripe rust and powdery mildew resistance. High yielding variety in high disease pressure environments. AH classification in southern NSW.

AGT-Montana: Very quick to quick maturing wheat, slightly quicker than Vixen. Alternative to Vixen and Calibre with an improved leaf and stripe rust package. Improved sprouting tolerance relative to Vixen. AH quality classification.

AGT-Rimfire: Mid maturing durum wheat. DBA Vittaroi replacement with much higher grain yield. Moderately short plant height with good standability. Good stripe rust resistance. ADR quality classification in NSW.

RGT Marsh: High performing spring wheat bred for WA. Quick mid maturity similar to Scepter and Tomahawk CL with best time of sowing from late April into June. Robust disease resistance. Pending AH classification.

Barley

AGT-Bunyip IA: A world first dual herbicide tolerant barley variety- ImI Tol and CoAXium - Tolerant to imidazolinone herbicides and Aggressor® herbicide. Offers flexibility to manage imidazolinone carry-over in soil and also manage problem weeds in crop. Similar plant type and maturity to Maximus CL. Entered into the malt evaluation program but is currently deliverable as Feed.

Soldier CL: Mid-slow maturing Clearfield barley with high yield potential, excellent lodging tolerance and head retention. Suited to high rainfall regions, or irrigation, where lodging is likely to occur. Offers improved disease resistance over RGT Planet, particularly for net form net blotch, and features excellent grain quality. Potential malt. Currently undergoing malt accreditation with the earliest possible accreditation in March 2028.

Ember: Slow maturing spring feed barley with excellent yield potential, well suited to high rainfall zones. It is 7-10 days slower to mature than Neo CL and RGT Planet and is suited for early sowing opportunities to help manage frost risk. It has a shorter plant height than RGT Planet. Ember has a good disease resistance profile including useful levels of resistance to scald (MRMS), leaf rust (MRMS), powdery mildew (MRMS) and net form net blotch (MRMS-MSS).

Rocket CL: Quick maturing Clearfield® barley suited to lower rainfall regions and late sowing windows. Quicker than Commodus CL and Beast. Offers strong resistance to net form net blotch rated MRMS-MSp, and improved lodging tolerance and head retention compared to Commodus CL and Beast. Potential malt. Currently undergoing malt accreditation, with the earliest possible approval expected by March 2028.

Table 1: 2025 variety list for the wheat, barley and oat trials for Beelbangera and Hillston.

WHEAT		
1	Rockstar	*InterGrain*
2	Valiant CL	*InterGrain*
3	Genie	*InterGrain*
4	Brumby	*InterGrain*
5	Vixen	*InterGrain*
6	Sheriff CL Plus**	*InterGrain*
7	IGW5466	*InterGrain*
8	IGW6895	*InterGrain*
9	IGW6955	*InterGrain*
10	IGW6970	*InterGrain*
11	AGT-Rio	*AGT*
12	AGT-Montana	*AGT*
13	Sundancer	*AGT*
14	Leverage	*AGT*
15	Tomahawk CL Plus	*AGT*
16	Shotgun	*AGT*
17	Ironbark	*AGT*
18	Brighton	*AGT*
19	Illabo	*AGT*
20	Anapurna	*AGT*
21	Sunmaster	*AGT*
22	Scepter	*AGT*
23	Longsword	*AGT*
24	AGT-Rimfire*	*AGT*
25	Westcourt*	*AGT*
26	Patron*	*AGT*
27	Beckom	*AGT*
28	Calibre	*AGT*
29	Sunblade CL Plus	*AGT*
30	Catapult	*AGT*
31	Boree	*AGT*
32	Sunflex	*AGT*
33	Kingston	*Seednet*
34	Wallaroo	*Seednet*
35	Scotch	*LRPB*
36	Mowhawk	*LRPB*
37	LongReach Major	*LRPB*
38	LongReach Optimus	*LRPB*
39	LongRach Raider	*LRPB*
40	LongReach Lancer	*LRPB*
41	Packer	*LRPB*
42	LongReach Tracer	*LRPB*
43	LongReach Matador	*LRPB*
44	Boa**	*LRPB*
45	LPB21-34503	*LRPB*
46	RGT Ponsford	*RAGT*
47	RGT Healy	*RAGT*
48	RGT Cesario	*RAGT*
49	RGT Marsh	*RAGT*
50	RGT Enebro	*RAGT*
51	19Q3H0499	*RAGT*
52	19Q3H0393	*RAGT*
53	16Q2H0310	*RAGT*
54	19Q3H2327	*RAGT*
55	Triple 2	*AGF Seeds*

** durum wheat ** Sheriff CL Plus in Beelbangera only; Boa in Hillston only*

BARLEY		
1	Neo CL	*InterGrain*
2	Maximus CL	*InterGrain*
3	Granite CL	*InterGrain*
4	Ember	*InterGrain*
5	Soldier CL	*InterGrain*
6	Rocket CL	*InterGrain*
7	Combat	*InterGrain*
8	Spartacus CL	*InterGrain*
9	Bigfoot CL	*AGT*
10	PegasusAX	*AGT*
11	Cyclops	*AGT*
12	Minotaur	*AGT*
13	AGT-Bunyip IA	*AGT*
14	Spinnaker	*Seednet*
15	SCA25-Y006	*Seednet*
16	Newton	*Seednet*
17	RGT Planet	*RAGT*
18	RGT Atlantis	*RAGT*
19	RGT Asteroid	*RAGT*
20	RP19034	*RAGT*
21	RP21011	*RAGT*
22	Kokoda*	*Waratah Seed Co*

** = Triticale*

OATS		
1	Goldie	*InterGrain*
2	Minnie	*InterGrain*
3	15175-56	*InterGrain*
4	Kingbale	*InterGrain*
5	Yallara	*Seednet*
6	Bannister	*Seednet*
7	Koala	*Seednet*
8	Mitika	
9	Yarran	
10	Kowari	

TRIAL DETAILS

Dryland Trials - Beelbangera

The dryland wheat, barley and oat variety trials were established at the Ag Grow Agronomy research farm "Ridgetop" in Beelbangera, approximately 16 km NE of Griffith. Paddock history was field peas 2024 and wheat 2023. Soil tests conducted prior to sowing showed a pH ($CaCl_2$) of 5.8, total nitrogen (0-60 cm) of 67 kg N/ha and Colwell phosphorus of 39 ppm.

The trials were sown on 1st May 2025 at 30 kg/ha, with 80 kg/ha of DAP. 160 kg/ha Green Urea was spread at the end of March. Weeds, pests, and diseases were adequately controlled in crop, with three timely fungicide applications for stripe rust. The barley and oat trials were harvested on 12th November, and the wheat trial was harvested 13th November 2025.

Irrigated Trials - Hillston

The irrigated wheat and barley variety trials were established at Graeme Horneman's "Wilga Glen" in Hillston (approximately 125 km NW of Griffith). The trials were sown following maize in the summer of 2024/2025. Soil tests prior to sowing showed a pH ($CaCl_2$) of 7.9, total nitrogen (0-60 cm) of 72 kg N/ha, and Colwell phosphorus of 23 ppm.

The trials were sown shallow dry on 15th May and water up. They were sown at 100 kg/ha with 180 kg/ha of DAP. 500 kg/ha Urea was spread before sowing. On top of watering up the trial received 3 spring irrigations, with the first occurring in early August and the last end of October. A total of 4.5ML/ha was applied. It is important to note that both the wheat and barley trials were irrigated the same. The barley trial would have benefited from receiving one less spring irrigation.

Weeds, pests, and diseases were adequately controlled in crop, with three timely fungicide applications, applied before each spring irrigation for stripe rust. The trial was harvested 8th December 2025.

Seasonal Conditions 2025

Conditions for the first 4 months of the year were dry, with below average rainfall and above average temperatures. The Beelbangera trial site received 67mm of rain in November and 23mm in December 2024, with a further 54mm of fallow rain falling from January to March in 2025.

Warm and dry conditions persisted into May, with some much-needed rain towards the end of the month, table 2. There was some follow up rain in mid-late June, although warmer, windy days and frosts impacted topsoil moisture, with below average rainfall continuing throughout June, July and August. Drought conditions strengthened. Much needed rain occurred in early/mid September.

There was 166.5 mm growing season rainfall (GSR) from April–October (240mm GSR average) at Beelbangera, with 76 mm of this rainfall received from mid-September and October.

Table 2: Rainfall for Beelbangera and Hillston 2025, compared to long-term rainfall data (Griffith & Hillson Airports - nearest met station).

MONTH	Ridgetop Rainfall 2025	Griffith Airport 2025	Griffith Airport Long Term (1958 to 2025)	Hillston Airport 2025	Hillston Airport Long Term (1881 to 2025)
January	4	4.4	36.3	4.6	31.8
February	18	23.6	28	17.4	26.9
March	32	25	35.3	33.6	33.3
April	*13.5*	*12.4*	*29.3*	4.4	27.9
May	*18*	*14.8*	*36.1*	39.4	32.9
June	*25*	*29*	*35.1*	22	35.1
July	*24.5*	*22.4*	*32.4*	23.2	30.3
August	*9.5*	*17*	*34.9*	13	30.6
September	*50.5*	*32.8*	*32.7*	39.3	28.7
October	*25.5*	*7.2*	*39.4*	7.2	36.3
November	13.5	21.2	36.3	21.2	30.8
December *	9.5	10.2	32.7	10.2	30.2
TOTAL	**243.5**	**220**	**408.5**	**235.5**	**374.8**
GSR (April - Oct)	***166.5***	***135.6***	***239.9***	***148.5***	***221.8***

** to 16th December 2025.*

Note: Hillston Airport - no data available for October, November, December 2025 (as such Griffith airport data used)

RESULTS

All trials were assessed for crop establishment, lodging at harvest, grain yield and grain quality (protein, screenings, and test weight).

Establishment:

Establishment was evaluated using a scoring system, with each plot rated from 0 to 9 (where 0 is poor establishment and 9 very even establishment).

Dryland Trials - Beelbangera

Establishment was assessed early June at early tillering, figure 1. The trials established well despite the dry conditions, with an average establishment score across varieties of 8.2 for the wheat trial, 8.4 for the barley trial and 7.9 for the oat trial.

Figure 1: Establishment of the Beelbangera trials - wheat trial (left), barley trial (middle) and oat trial (right) June 2025.

Irrigated Trials - Hillston

The Hillston trials were sown dry and watered up. Although the site was watered up successfully, an irrigation bank blew, and the trial suffered some waterlogging at establishment. Barley was impacted more from the waterlogging at establishment than wheat.

Establishment was assessed early July when the wheat and barley trials were from 3 leaf to early tillering, figure 2. The average establishment score of the wheat trial was 7.8 and the barley trial was 6.5.

Figure 2: Establishment of the Hillston trials - wheat trial (left) and barley trial (right) July 2025.

Lodging:

Lodging was assessed at harvest on all trials. Each trial was scored for lodging on a scale of 0 to 9, with 0 indicating no lodging and 9 flat on the ground.

Dryland Trials - Beelbangera

The average lodging scores at Beelbangera were 2.4 for wheat, 2.6 for barley and 2.1 for oats, figure 3. Within each trial there were varieties which had higher degrees of lodging, table 3.

In the wheat trial AGT-Montana had the highest degree of lodging with a score of 4.3, followed by the line 19Q3H2327 with 4 and RGT Marsh, Ironbark, Beckom and numbered lines 19Q3H0393, 19Q3H0499 and LPB21-34503 with a score of 3.7.

In the barley trial Rocket CL had the greatest lodging score with 5.3, followed by PegasusAX with 5, SCA25-Y006 with 4.3 and Cyclops with 3.7.

In the oat trial Yarran had the highest degree of lodging with 4, with all other varieties scoring below 3.

Figure 3: Lodging at harvest for the Beelbangera trials - wheat trial (left), barley trial (middle) and oat trial (right) November 2025.

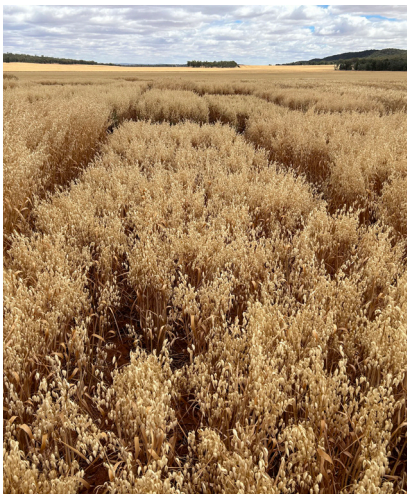

Table 3: Lodging scores at harvest of the wheat, barley and oat variety trials, Beelbangera 2025.

VARIETY	Lodging Score
16Q2H0310	3.0
19Q3H0393	3.7
19Q3H0499	3.7
19Q3H2327	4.0
AGT-Montana	4.3
AGT-Rimfire	2.7
AGT-Rio	2.0
Anapurna	1.0
Beckom	3.7
Boree	2.0
Brighton	1.3
Brumby	2.0
Calibre	2.3
Catapult	2.3
Genie	2.0
IGW5466	1.7
IGW6895	2.7
IGW6955	2.7
IGW6970	2.3
Illabo	1.7
Ironbark	3.7
Kingston	2.0
Leverage	2.0
LongRach Raider	2.3
LongReach Lancer	2.3
LongReach Major	1.7
LongReach Matador	2.7
LongReach Optimus	2.3
LongReach Tracer	3.3
Longsword	1.3
LPB21-34503	3.7
Mowhawk	1.7
Packer	2.0
Patron	3.0
RGT Cesario	1.7
RGT Enebro	1.7
RGT Marsh	3.7
RGT Healy	2.3
RGT Ponsford	2.7
Rockstar	2.0
Scepter	2.7
Scotch	2.3
Sheriff CL Plus	2.7
Shotgun	3.0
Sunblade CL Plus	2.3
Sundancer	2.7
Sunflex	2.0
Sunmaster	3.0
Tomahawk CL Plus	2.0
Triple 2	1.0
Valiant CL	1.7
Vixen	3.0
Wallaroo	1.7
Westcourt	2.0
mean	***2.4***

VARIETY	Lodging Score
AGT-Bunyip IA	2.0
Bigfoot CL	3.3
Combat	3.3
Cyclops	3.7
Ember	1.7
Granite CL	3.0
Kokoda	0.3
Maximus CL	2.3
Minotaur	2.0
Neo CL	2.0
Newton	1.7
PegasusAX	5.0
RAGT Asteroid	2.0
RAGT Atlantis	1.7
RAGT Planet	2.0
Rocket CL	5.3
RP19034	3.0
RP21011	1.7
SCA25-Y006	4.3
Soldier CL	1.7
Spartacus	2.7
Spinnaker	2.3
mean	***2.6***

VARIETY	Lodging Score
15175-56	1.0
Bannister	2.3
Goldie	1.7
Kingbale	2.3
Koala	2.0
Kowari	1.3
Minnie	1.0
Mitika	2.3
Yallara	2.7
Yarran	4.0
mean	***2.1***

Irrigated Trials - Hillston

There was more lodging at Hillston, with the average lodging score of the wheat trial 2.1 and the average lodging score of the barley trial 3.8, figure 4. Lodging in the trial was variable across varieties, with varieties in the trial ranging from 2 to 8 for lodging. Mean lodging scores are shown in table 4.

In the wheat trial the durum wheat variety Patron had the highest lodging of any wheat variety, with a score of 6.7. Varieties to have no lodging included the winter wheats Anapurna, Triple 2 and Wallaroo.

Of the barley varieties the lined variety SCA25-Y006 had the highest degree of lodging with a lodging score of 7. Other varieties to have a score above 5 were RGT Asteroid, Newton, RP19034 and Combat.

Figure 4: Lodging at harvest for the Hillston trials - wheat trial (top) and barley trial (bottom) December 2025.

Table 4: Lodging scores at harvest of the wheat and barley variety trials, Hillston 2025.

VARIETY	Lodging Score
AGT-Bunyip IA	5.0
Bigfoot CL	3.3
Combat	5.3
Cyclops	3.7
Ember	2.3
Granite CL	2.0
Kokoda	1.3
Maximus CL	3.0
Minotaur	2.7
Neo CL	2.7
Newton	5.7
PegasusAX	4.3
RAGT Asteroid	6.3
RAGT Atlantis	3.7
RAGT Planet	5.0
Rocket CL	3.3
RP19034	5.7
RP21011	2.7
SCA25-Y006	7.7
Soldier CL	2.7
Spartacus	1.7
Spinnaker	3.7
mean	***3.8***
16Q2H0310	2.7
19Q3H0393	3.7
19Q3H0499	2.7
19Q3H2327	3.7
AGT-Montana	4.0
AGT-Rimfire	1.7
AGT-Rio	1.0
Anapurna	0
Beckom	4.5
Boa	0.7
Boree	1.0
Brighton	1.7
Brumby	1.3
Calibre	4.0
Catapult	1.7
Genie	1.0
IGW5466	1.0
IGW6895	2.0
IGW6955	2.0
IGW6970	3.5
Illabo	1.0
Ironbark	4.5
Kingston	1.3
Leverage	1.3
LongRach Raider	3.0
LongReach Lancer	2.0
LongReach Major	1.7
LongReach Matador	3.0
LongReach Optimus	2.3
LongReach Tracer	3.0
Longsword	0.7
LPB21-34503	2.7
Mowhawk	1.3
Packer	1.0
Patron	6.7
RGT Cesario	3.0
RGT Enebro	0.3
RGT Marsh	4.0
RGT Healy	4.0
RGT Ponsford	0.7
Rockstar	2.0
Scepter	2.0
Scotch	1.0
Shotgun	1.7
Sunblade CL Plus	2.0
Sundancer	2.3
Sunflex	2.0
Sunmaster	2.3
Tomahawk CL Plus	1.3
Triple 2	0
Valiant CL	0.7
Vixen	1.3
Wallaroo	0
Westcourt	3.7
mean	***2.1***

Grain Yield and Quality:

Grain yield, protein, screenings (wheat and oats 2.0mm screen and barley and Triticale 2.2mm screen) and test weight were all measured and analysed on each trial.

Dryland Trials - Beelbangera

The oat and barley trials were harvested on 12th November, and the wheat trial was harvested 13th November 2025.

Wheat trial

The average yield of the wheat trial was 6234 kg/ha, ranging from 4076 kg/ha for RGT Cesario to 7281 kg/ha for Calibre, figure 5. Other wheat varieties to perform well and yield greater than 7000kg were lined varieties IGW6955, IGW6895, 19Q3H0393, 19Q3H0499 and released varieties Tomahawk CL Plus, RGT Marsh, Shotgun and Boree. The season did not favour the longer season winter wheats or durum wheat varieties in the Beelbangera trial, with yields generally lower than other varieties in the trial.

Quality data for the Beelbangera wheat trial is shown in table 5.

The average grain protein of the wheat trial was 11.97%. Long season wheat varieties RGT Cesario and Anapurna had the highest proteins in the trial with 16.38% and 16.12% respectively. The lined variety 19Q3H0499 had the lowest protein in the trial with 9.85%. Most other varieties were within their protein specifications for their grade.

Screenings were low in the trial averaging 1.1%. The varieties to have the highest screenings were Anapurna, Genie and RGT Cesario with 4.4%, 3.9% and 3.1% respectively.

The average test weight of the trial was 82.44 kg/hL, with most varieties in the trial having a test weight above 80 kg/hL. RGT Cesario had the lowest test weight in the trial with 63.75 kg/hL. RGT Enebro, Anapurna and Illabo were the only other varieties in the trial to have test weights below 80 kg/hL. Kingston had the highest test weight in the trial with 85.03 kg/hL Sunblade CL Plus, RGT Marsh, Packer, LRPB Matador, LRPB Major, Ironbark, IGW5466, 19Q3H2327 and 19Q3H0393 were other varieties to have high test weights above 84 kg/hL.

Barley trial

The average yield of the barley trial was 6572 kg/ha. RGT Planet was the highest yielding variety in the trial, yielding 7752 kg/ha. The season did not favour the longer season winter barley variety Newton, which was the lowest yielding variety in the trial, yielding 3073 kg/ha, figure 6.

Quality data for the Beelbangera barley trial is shown in table 6.

The average grain protein of the trial was 13.73%. All barley varieties achieved protein above 12%, ranging from 12.29% for RAGT Planet to 18% for Newton. The triticale variety Kokoda had a grain protein of 17.15%.

The average screenings of the trial was 1.5%. Screenings were mostly below 2%, except for Newton barley (11.4%) and Kokoda triticale (5.4%).

All barley varieties had good test weights above 65 kg/hL, with the exception of Newton barley which had a test weight of 57.64 kg/hL. The average test weight of the trial 70.32 kg/hL, with the triticale variety Kokoda having the highest in the trial with 73.68 kg/hL, followed by AGT-Bunyip IA (72.63 kg/hL), RP19034 (72.15 kg/hL) and Maximus CL (72.04 kg/hL).

Oat trial

The average grain yield of the oat trial was 5365 kg/ha, ranging from 4700 kg/ha for Yarran to 6538 kg/ha for Bannister, figure 7. The yield of Kowari oats was not included in the graph due to poor seed quality, resulting in poor establishment and therefore reduced grain yield.

Quality data for the oat trial is shown in table 7.

The average grain protein of the oat trial was 11.72%. Yarran had the greatest protein out of the oats with 13.79%, followed by Kowari with 12.55%. The dual-purpose oat variety Goldie had the lowest protein in the trial with 10.5%.

Screenings averaged 3.9%, with the oaten hay variety Kingbale having the highest screenings with 8.8%. The milling variety Koala had the next highest screenings with 5.2%.

The average test weight of the trial was 55.02 kg/hL. There was minimal difference between varieties with test weights ranging from 53.45 kg/hL for the lined variety 15175-56 to 57.03 kg/hL for Yarran.

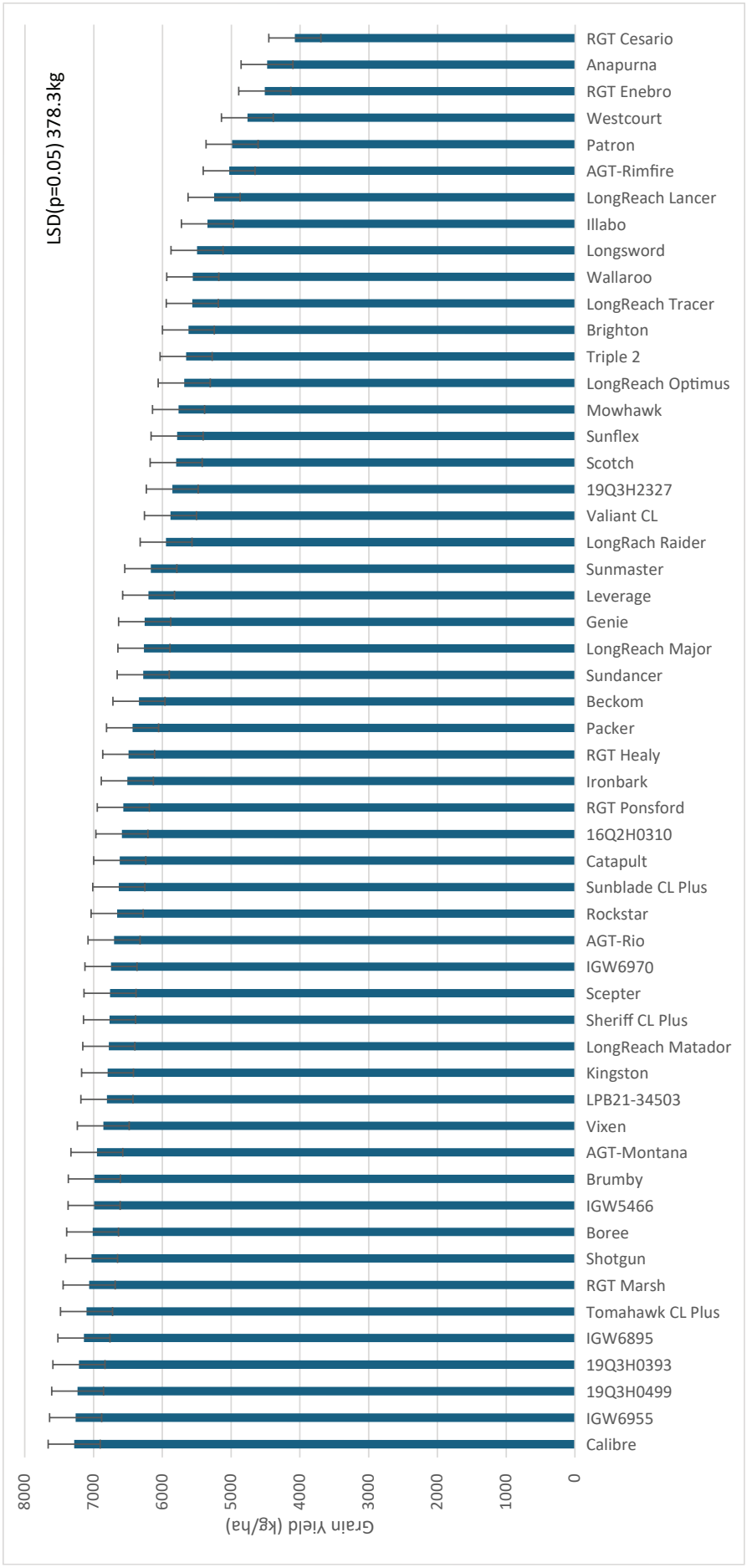

Figure 5: Grain yield of the Beelbangera wheat variety trial – harvested 13th November 2025.

Table 5: Protein, Screenings and test weight of the Beelbangera wheat variety trial 2025.

VARIETY	Protein (%)	Sig diff
RGT Cesario	16.38	a
Anapurna	16.12	ab
RGT Enebro	15.48	b
Brighton	14.03	c
Triple 2	13.70	cd
Longsword	13.67	cd
Illabo	13.53	cde
LongReach Lancer	13.46	de
Valiant CL	13.43	de
Westcourt	13.03	ef
Wallaroo	12.88	fg
Mowhawk	12.86	fg
Sunflex	12.75	fg
LongReach Optimus	12.71	fgh
AGT-Rimfire	12.63	fgh
Genie	12.54	fghi
Scotch	12.51	ghi
Sunmaster	12.51	ghi
LongReach Tracer	12.47	ghi
LongRach Raider	12.21	hij
Sundancer	12.08	ijk
16Q2H0310	11.95	jkl
Leverage	11.90	jkl
Ironbark	11.77	jklm
LongReach Major	11.75	jklm
Packer	11.67	klmn
19Q3H2327	11.64	klmn
Kingston	11.53	lmno
AGT-Montana	11.47	l-p
Beckom	11.44	l-q
RGT Healy	11.38	m-q
IGW6970	11.35	m-r
Sunblade CL Plus	11.21	n-s
AGT-Rio	11.20	n-s
Patron	11.20	n-s
Catapult	11.09	o-t
Sheriff CL Plus	11.07	o-t
Scepter	11.02	p-t
Rockstar	11.00	p-u
Vixen	11.00	p-u
Tomahawk CL Plus	10.94	q-u
Calibre	10.86	rstu
Brumby	10.85	rstu
Boree	10.81	stu
LPB21-34503	10.79	stu
RGT Ponsford	10.74	stuv
Shotgun	10.74	stuv
LongReach Matador	10.71	stuv
IGW5466	10.69	s-w
RGT Marsh	10.59	tuvw
IGW6895	10.49	uvw
IGW6955	10.25	vwx
19Q3H0393	10.19	wx
19Q3H0499	9.85	x
mean	***11.97***	
LSD (p=0.05)	***0.514***	

VARIETY	Screenings (%)	Sig diff
Anapurna	4.41	a
Genie	3.88	b
RGT Cesario	3.14	c
Triple 2	2.43	d
Sunblade CL Plus	1.87	e
Wallaroo	1.65	ef
IGW5466	1.64	ef
RGT Enebro	1.62	ef
19Q3H0393	1.57	efg
Shotgun	1.21	fgh
19Q3H2327	1.17	ghi
IGW6895	1.08	hij
Brumby	1.07	hij
19Q3H0499	1.04	hijk
Vixen	1.02	hijk
Mowhawk	1.01	h-l
Rockstar	1.01	h-m
IGW6955	0.95	h-n
Scotch	0.94	h-o
LongRach Raider	0.93	h-o
Calibre	0.91	h-p
Packer	0.91	h-p
LongReach Matador	0.91	h-p
IGW6970	0.87	h-q
RGT Ponsford	0.86	h-q
Boree	0.86	h-q
LPB21-34503	0.85	h-q
RGT Healy	0.84	h-q
Illabo	0.82	h-r
Sunmaster	0.79	h-r
Brighton	0.79	h-r
AGT-Montana	0.78	h-r
RGT Marsh	0.78	h-r
Beckom	0.76	i-r
Longsword	0.76	i-r
Scepter	0.76	i-r
Sundancer	0.75	i-r
LongReach Optimus	0.68	j-r
Tomahawk CL Plus	0.67	j-r
Catapult	0.65	j-r
AGT-Rimfire	0.62	k-r
Ironbark	0.61	k-r
Leverage	0.58	l-r
LongReach Major	0.58	l-r
Patron	0.56	m-r
AGT-Rio	0.54	n-r
Valiant CL	0.53	n-r
Sheriff CL Plus	0.52	n-r
LongReach Tracer	0.49	opqr
LongReach Lancer	0.49	opqr
Sunflex	0.48	pqr
16Q2H0310	0.46	qr
Kingston	0.39	r
Westcourt	0.38	r
mean	***1.05***	
LSD (p=0.05)	***0.439***	

VARIETY	Test Weight (kg/hL)	Sig diff
Kingston	85.03	a
Packer	84.6	ab
19Q3H2327	84.44	abc
RGT Marsh	84.27	abc
Sunblade CL Plus	84.1	abcd
19Q3H0393	84.05	abcd
LongReach Major	84.05	abcd
IGW5466	84.04	a-e
Ironbark	84.01	a-e
LongReach Matador	84	a-e
IGW6970	83.96	a-e
19Q3H0499	83.9	a-e
Sheriff CL Plus	83.87	a-e
Sunmaster	83.84	bcde
Genie	83.81	bcde
AGT-Montana	83.72	b-f
Boree	83.69	b-g
Mowhawk	83.68	bog
IGW6895	83.65	b-g
Vixen	83.6	b-g
Catapult	83.58	b-g
IGW6955	83.58	b-g
Valiant CL	83.56	b-g
AGT-Rio	83.55	b-h
Tomahawk CL Plus	83.44	b-i
RGT Healy	83.39	c-j
Scepter	83.38	c-j
LongReach Tracer	83.35	c-k
Beckom	83.29	c-k
Rockstar	83.21	d-k
LongReach Lancer	83.16	d-l
LPB21-34503	83.09	d-l
Sunflex	83.02	d-l
Leverage	83.01	d-l
RGT Ponsford	82.99	d-l
Brumby	82.82	e-m
Longsword	82.64	f-m
Shotgun	82.6	f-m
Wallaroo Wheat	82.55	g-m
LongReach Optimus	82.39	h-n
Brighton	82.31	i-n
Sundancer	82.25	j-n
Calibre	82.19	klmn
Westcourt	82.01	lmno
Patron	81.82	mno
LongRach Raider	81.8	mno
16Q2H0310	81.3	no
AGT-Rimfire	81	op
Scotch	80.97	op
Triple 2	80.88	op
Illabo	79.84	p
Anapurna	75.47	q
RGT Enebro	73.06	r
RGT Cesario	63.75	s
mean	***82.44***	
LSD (p=0.05)	***1.161***	

Means followed by same letter do not significantly differ

Figure 6: Grain yield of the Beelbangera barley variety trial - harvested 12th November 2025.

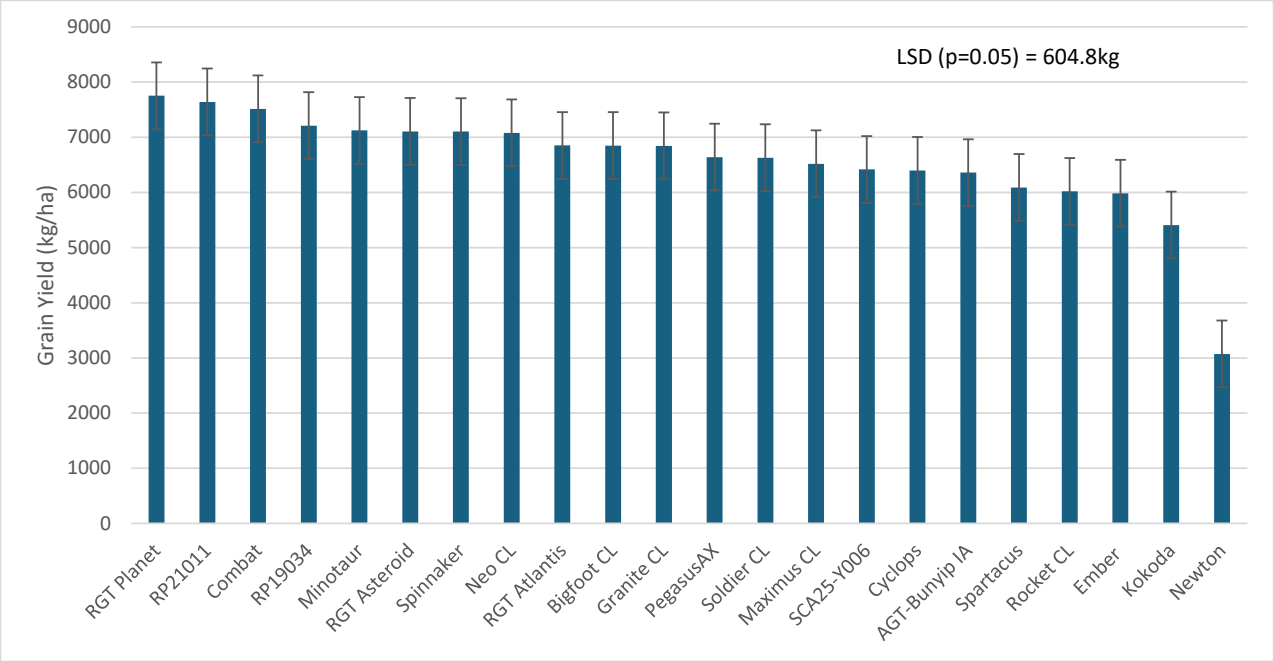

Table 6: Protein, Screenings and test weight of the Beelbangera barley variety trial 2025.

VARIETY	Protein (%)	*Sig diff*
Newton	18.00	*a*
Kokoda*	17.15	*b*
Spartacus	14.69	*c*
Rocket CL	14.10	*cd*
Bigfoot CL	14.03	*d*
Cyclops	14.01	*d*
Maximus CL	13.90	*d*
AGT-Bunyip IA	13.87	*d*
Granite CL	13.75	*de*
Minotaur	13.75	*de*
Ember	13.64	*def*
RAGT Atlantis	13.20	*efg*
PegasusAX	13.10	*fgh*
RP19034	13.07	*fgh*
RAGT Asteroid	12.99	*gh*
Spinnaker	12.91	*ghi*
Soldier CL	12.90	*ghi*
RP21011	12.83	*ghi*
Combat	12.82	*ghi*
SCA25-Y006	12.66	*ghi*
Neo CL	12.48	*hi*
RAGT Planet	12.29	*i*
mean	***13.73***	
LSD (p=0.05)	***0.635***	

VARIETY	Screenings (%)	*Sig diff*
Newton	11.42	*a*
Kokoda*	5.39	*b*
Ember	1.64	*c*
PegasusAX	1.52	*cd*
Minotaur	1.25	*cde*
Cyclops	1.21	*def*
Combat	1.10	*efg*
Spartacus	0.94	*efgh*
AGT-Bunyip IA	0.84	*efghi*
Bigfoot CL	0.82	*fghi*
Granite CL	0.81	*fghi*
Maximus CL	0.80	*fghi*
RAGT Asteroid	0.78	*ghi*
Soldier CL	0.72	*ghi*
RAGT Atlantis	0.66	*hi*
RP19034	0.62	*hi*
Rocket CL	0.59	*hi*
RAGT Planet	0.57	*hi*
RP21011	0.56	*hi*
SCA25-Y006	0.55	*hi*
Neo CL	0.49	*i*
Spinnaker	0.46	*i*
mean	***1.53***	
LSD (p=0.05)	***0.411***	

VARIETY	Test Weight (kg/hL)	*Sig diff*
Kokoda	73.68	*a*
AGT-Bunyip IA	72.63	*b*
RP19034	72.15	*bc*
Maximus CL	72.04	*bcd*
Bigfoot CL	71.53	*cde*
Spartacus	71.49	*cdef*
Neo CL	71.24	*cdefg*
Spinnaker	71.22	*cdefg*
Rocket CL	71.16	*defgh*
Granite CL	71.03	*efgh*
RAGT Planet	70.81	*efghi*
SCA25-Y006	70.76	*efghij*
Minotaur	70.53	*fghij*
Cyclops	70.47	*ghij*
RAGT Asteroid	70.31	*ghij*
PegasusAX	70.28	*ghij*
Combat	70.23	*hij*
Soldier CL	70.00	*ij*
RP21011	69.88	*ij*
RAGT Atlantis	69.80	*j*
Ember	68.11	*k*
Newton	57.64	*l*
mean	***70.32***	
LSD (p=0.05)	***0.985***	

Means followed by same letter do not significantly differ

Figure 7: Grain yield of the Beelbangera oat variety trial - harvested 12th November 2025.

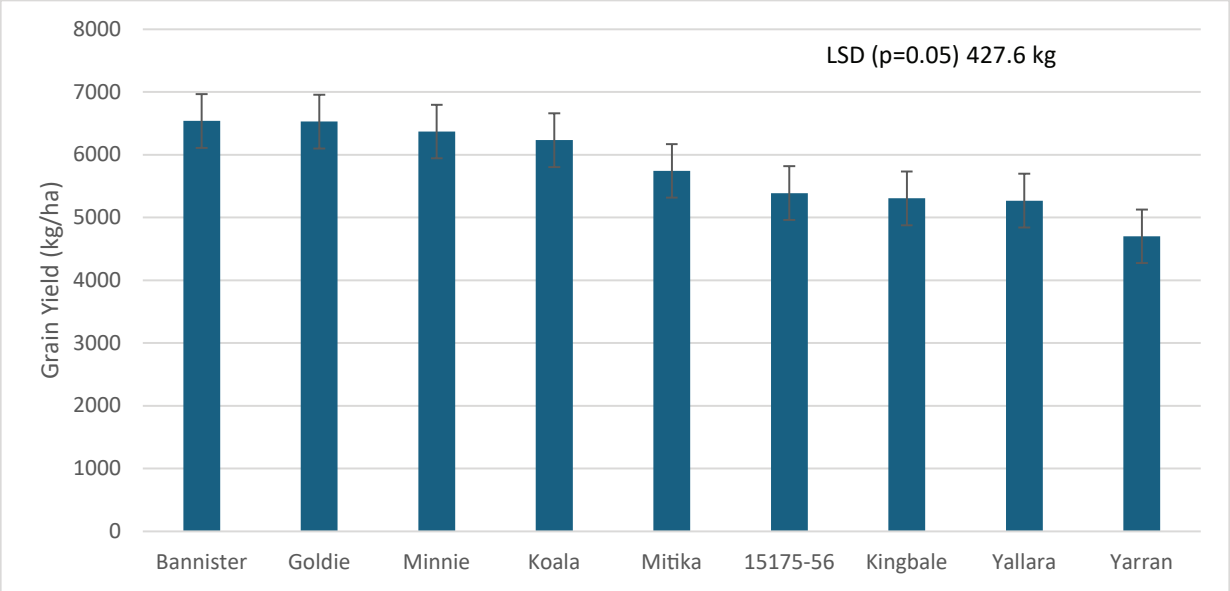

Table 7: Protein, Screenings and test weight of the Beelbangera oat variety trial 2025.

VARIETY	Protein (%)	*Sig diff*
Yarran	13.79	*a*
15175-56	12.39	*bc*
Mitika	12.34	*bc*
Kingbale	12.14	*c*
Yallara	11.55	*d*
Bannister	10.84	*e*
Minnie	10.74	*ef*
Goldie	10.50	*fg*
Koala	10.39	*g*
mean	***11.72***	
LSD (p=0.05)	***0.254***	

VARIETY	Screenings (%)	*Sig diff*
Kingbale	8.78	*a*
Koala	5.20	*b*
Bannister	4.90	*b*
Yallara	4.00	*c*
Minnie	2.69	*d*
15175-56	2.67	*d*
Goldie	2.66	*d*
Mitika	1.55	*e*
Yarran	1.51	*e*
mean	***3.87***	
LSD (p=0.05)	***0.776***	

VARIETY	Test Weight (kg/hL)	*Sig diff*
Yallara	57.03	*a*
Mitika	56.87	*a*
Yarran	56.31	*ab*
Goldie	55.56	*b*
Koala	55.47	*b*
Bannister	54.35	*c*
Minnie	53.84	*c*
Kingbale	53.66	*c*
15175-56	53.45	*c*
mean	***55.02***	
LSD (p=0.05)	***0.866***	

Means followed by same letter do not significantly differ

Irrigated Trials - Hillston

The trials were harvested on 8th December 2025.

Wheat trial

The average yield of the wheat trial was 10547 kg/ha, ranging from 8165 kg/ha for the lined variety 19Q3H2327 to 13117 kg/ha for Anapurna, figure 8. Besides Anapurna, other winter wheats RGT Enebro and Triple 2 as well as the durum wheat varieties Patron and AGT-Rimfire were the standout performers in the trial, all yielding above 12000 kg/ha.

Quality data for the Hillston wheat trial is shown in table 8.

The average grain protein of the wheat trial was 11.76%. Boa had the highest grain protein in the trial with 13.09%. The durum variety Patron had the lowest grain protein in the trial with 10.48%, with five other varieties Triple 2, RGT Enebro, AGT-Rio, LongReach Major and Sunblade CL Plus also having proteins below 11%.

Screenings were generally low in the trial, averaging 1.6%. RGT Cesario was the only variety to have screenings above 3%.

The average test weight of the trial was 83.89 kg/HL. Test weights ranged from 76.12 kg/HL for RGT Cesario to 86.41 kg/HL for the durum wheat variety Patron.

Barley trial

The average yield of the barley trial was 10732 kg/ha, ranging from 9355 kg/ha for Spinnaker to 12153 kg/ha for Neo CL, figure 9. The winter barley variety Newton and Soldier CL were the only other varieties to yield below 10000 kg/ha.

Quality data for the Hillston barley trial is shown in table 9.

Grain protein of the barley trial averaged 13.16%. The lined variety RP19034 had the lowest grain protein and was the only variety to have a protein below 12% with 11.93%. Newton had the highest protein in the trial with 15.5%.

Screenings were low in the trial averaging 1.5%. Granite CL, Spartacus, Newton and Kokoda triticale were the only varieties to have screenings greater than 2%.

The average test weight of the trial was 70.59 kg/HL. Test weights ranged from 66.74 kg/HL for Newton to 77.62 kg/HL for the triticale variety Kokoda.

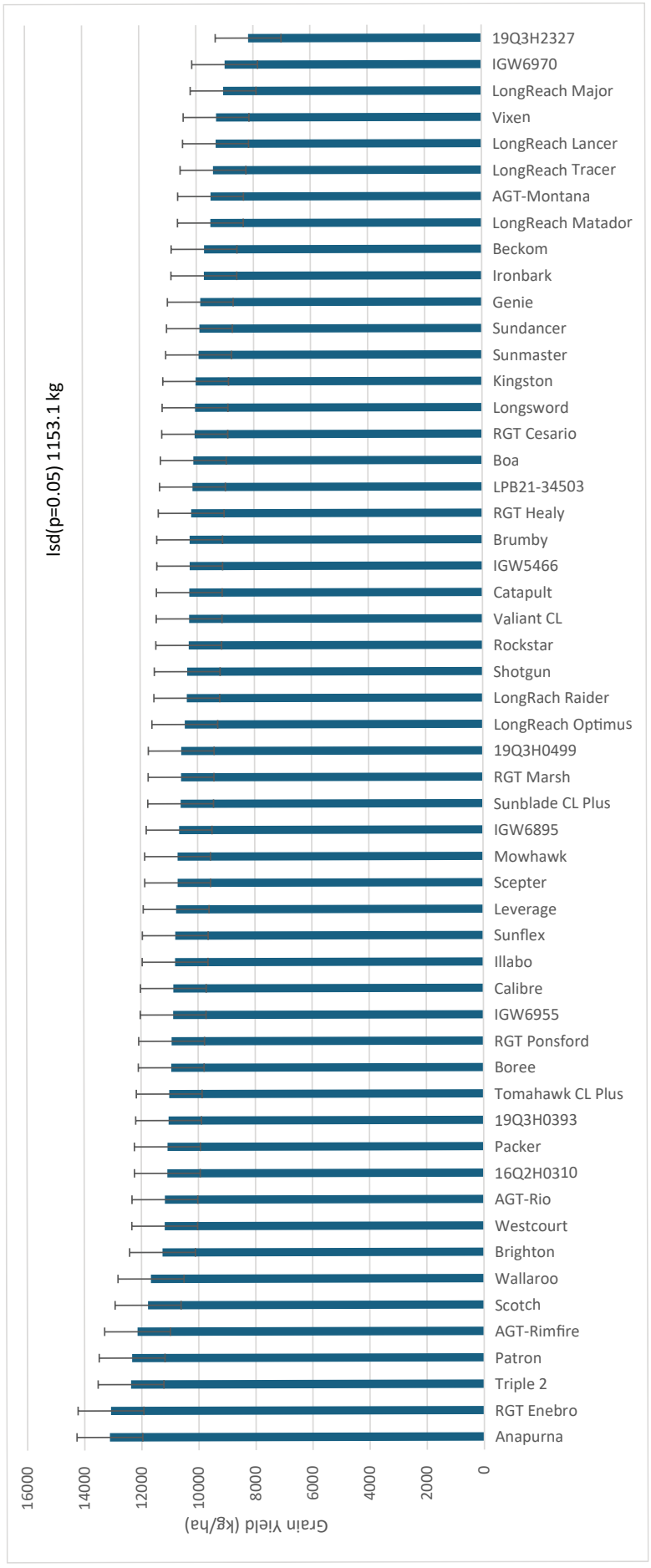

Figure 8: Grain yield of the Hillston wheat variety trial - harvested 8th December 2025.

Table 8: Protein, Screenings and test weight of the Hillston wheat variety trial 2025.

VARIETY	Protein (%)	Sig diff
Boa	13.09	a
Valiant CL	12.93	a
Brighton	12.68	abc
Westcourt	12.64	abcd
Vixen	12.46	b-e
IGW6970	12.37	c-f
Scotch	12.34	c-g
Sunflex	12.33	c-g
LongReach Lancer	12.29	c-g
LongReach Matador	12.21	c-h
AGT-Rimfire	12.20	c-i
Calibre	12.18	d-j
LongReach Optimus	12.13	e-k
LongRach Raider	12.11	e-l
Illabo	12.10	e-m
LongReach Tracer	12.09	e-m
Wallaroo	12.09	e-m
Longsword	12.07	e-n
Catapult	11.93	f-o
Anapurna	11.90	f-o
RGT Ponsford	11.87	g-o
Scepter	11.87	g-o
Tomahawk CL Plus	11.78	h-p
RGT Marsh	11.75	h-p
Shotgun	11.73	h-q
Ironbark	11.71	i-q
Mowhawk	11.71	i-q
Brumby	11.69	j-q
19Q3H2327	11.68	k-q
19Q3H0393	11.62	l-q
Genie	11.62	l-q
AGT-Montana	11.61	m-q
LPB21-34503	11.61	m-q
Sundancer	11.61	m-q
IGW6895	11.58	n-r
16Q2H0310	11.56	opqr
Boree	11.56	opqr
Leverage	11.56	opqr
RGT Cesario	11.56	opqr
IGW6955	11.55	opqr
Kingston	11.53	opqr
IGW5466	11.52	opqr
Packer	11.51	opqr
Beckom	11.49	opqr
19Q3H0499	11.32	pqrs
RGT Healy	11.29	pqrs
Sunmaster	11.24	qrst
Rockstar	11.10	rstu
Sunblade CL Plus	10.95	stuv
LongReach Major	10.88	stuv
AGT-Rio	10.78	tuv
RGT Enebro	10.76	tuv
Triple 2	10.70	uv
Patron	10.48	v
mean	***11.76***	
lsd(p=0.05)	***0.492***	

VARIETY	Screenings (%)	Sig diff
RGT Cesario	3.23	a
Genie	2.67	ab
LongReach Matador	2.44	bc
Rockstar	2.27	bcd
LPB21-34503	2.22	bcd
LongReach Major	2.12	cde
Anapurna	2.08	cdef
Triple 2	2.07	cdef
IGW6895	2.05	cdef
RGT Enebro	2.05	cdef
Sunblade CL Plus	2.03	cdef
LongRach Raider	2.03	cdef
19Q3H0393	2.03	cdef
IGW6970	1.98	c-g
Catapult	1.93	c-g
RGT Ponsford	1.83	d-h
Tomahawk CL Plus	1.80	d-h
RGT Marsh	1.75	d-i
IGW5466	1.75	d-i
Scepter	1.74	d-j
Sundancer	1.64	e-k
Vixen	1.63	e-k
19Q3H0499	1.61	e-k
Shotgun	1.61	e-k
AGT-Montana	1.61	e-k
IGW6955	1.60	e-k
Packer	1.60	e-k
Patron	1.55	f-k
Boree	1.54	f-k
Mowhawk	1.54	f-k
Illabo	1.48	g-k
LongReach Tracer	1.47	g-k
Leverage	1.46	g-k
19Q3H2327	1.45	g-k
Calibre	1.45	g-k
Wallaroo	1.44	g-k
Scotch	1.44	hijk
Beckom	1.43	hijk
LongReach Lancer	1.42	hijk
Sunmaster	1.39	hijk
LongReach Optimus	1.37	hijk
Brumby	1.36	hijk
Kingston	1.35	hijk
Ironbark	1.25	ijk
AGT-Rio	1.24	ijk
Boa	1.23	ijkl
RGT Healy	1.21	i=m
Valiant CL	1.19	i-m
Brighton	1.17	klmn
Sunflex	1.15	klmn
AGT-Rimfire	1.14	klmn
16Q2H0310	0.69	lmn
Longsword	0.67	mn
Westcourt	0.65	n
mean	***1.63***	
lsd(p=0.05)	***0.550***	

VARIETY	Test Weight (kg/HL)	Sig diff
Patron	86.41	a
19Q3H2327	86.00	ab
IGW5466	85.49	abc
LongReach Major	85.30	abcd
Sunmaster	85.18	a-e
Tomahawk CL Plus	85.18	a-e
Mowhawk	85.05	a-f
16Q2H0310	85.02	a-f
Ironbark	85.01	a-f
IGW6895	85.00	a-f
LongReach Optimus	84.88	a-f
Packer	84.88	a-f
Westcourt	84.80	a-f
Scepter	84.78	a-f
RGT Healy	84.73	a-f
AGT-Rio	84.59	a-g
Genie	84.56	a-g
LongReach Tracer	84.54	a-g
Sunflex	84.54	a-g
Wallaroo	84.54	a-g
19Q3H0499	84.38	b-g
LongReach Lancer	84.34	b-g
Brighton	84.33	b-g
IGW6955	84.31	b-g
IGW6970	84.25	b-g
Longsword	84.24	b-g
19Q3H0393	84.22	b-g
RGT Marsh	84.15	b-g
Sundancer	84.15	b-g
AGT-Rimfire	84.12	b-g
Calibre	84.07	b-g
LPB21-34503	84.05	b-g
Sunblade CL Plus	83.97	c-g
Boree	83.94	c-g
Boa	83.80	c-h
Leverage	83.76	c-h
Beckom	83.74	c-h
LongReach Matador	83.72	c-h
Rockstar	83.66	c-h
Vixen	83.62	c-h
Scotch	83.61	c-h
Brumby	83.58	c-h
Valiant CL	83.49	d-i
Shotgun	83.36	d-i
RGT Ponsford	83.26	e-j
Anapurna	83.17	f-j
Catapult	83.14	f-j
AGT-Montana	82.67	ghij
Triple 2	81.95	hij
Illabo	81.84	hij
LongRach Raider	81.54	ijk
Kingston	81.30	jk
RGT Enebro	79.83	k
RGT Cesario	76.12	l
mean	***83.89***	
lsd(p=0.05)	***1.983***	

Means followed by same letter do not significantly differ

Figure 9: Grain yield of the barley variety trial - harvested 8th December 2025.

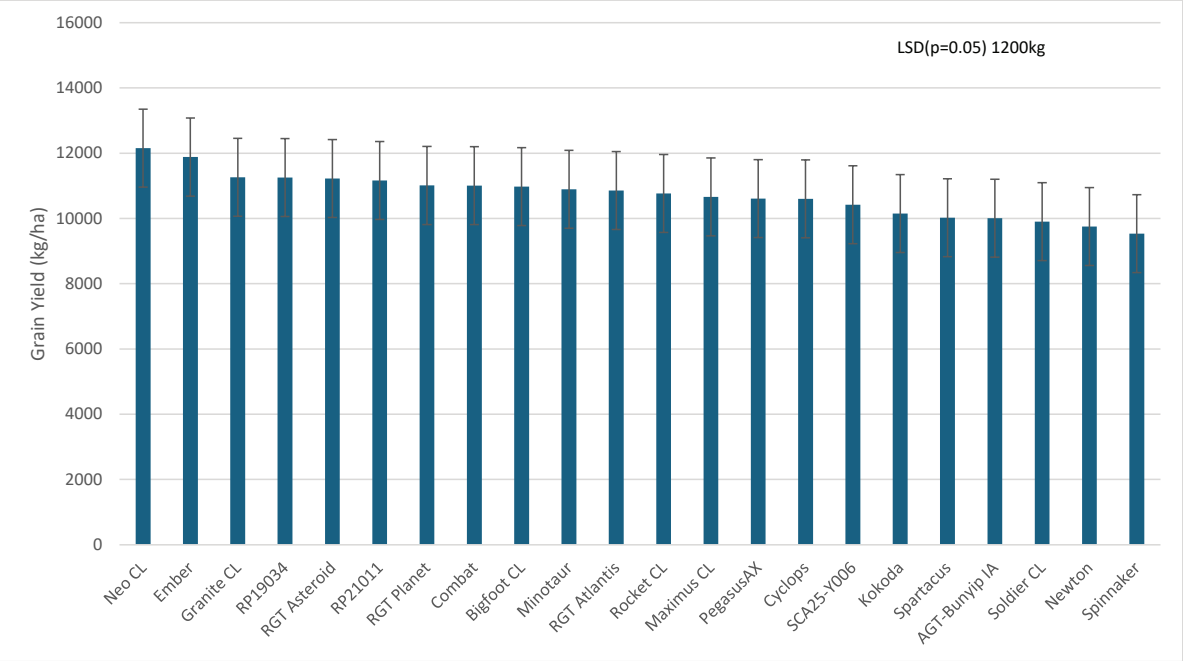

Table 6: Protein, Screenings and test weight of the Beelbangera barley variety trial 2025.

VARIETY	Protein (%)	Sif diff
Newton	15.50	a
Kokoda*	14.47	b
Spartacus	14.32	b
Maximus CL	14.19	bc
Rocket CL	14.08	bcd
Bigfoot CL	13.96	bcde
AGT-Bunyip IA	13.81	bcde
Granite CL	13.53	cdef
Cyclops	13.40	def
Minotaur	13.31	ef
PegasusAX	12.95	fg
Soldier CL	12.91	fgh
RGT Asteroid	12.53	ghi
RP21011	12.53	ghi
Ember	12.43	ghi
SCA25-Y006	12.43	ghi
Combat	12.40	ghi
Spinnaker	12.39	ghi
RGT Planet	12.24	hi
RGT Atlantis	12.11	i
Neo CL	12.05	i
RP19034	11.93	i
mean	***13.16***	
lsd(p=0.05)	***0.701***	

VARIETY	Screenings (%)	Sig diff
Kokoda*	2.47	a
Newton	2.28	ab
Spartacus	2.26	ab
Granite CL	2.23	ab
Cyclops	1.98	abc
Bigfoot CL	1.84	bcd
AGT-Bunyip IA	1.64	cde
PegasusAX	1.51	cdef
Maximus CL	1.50	cdef
RGT Asteroid	1.49	cdef
Soldier CL	1.37	defg
Ember	1.35	defg
RP19034	1.29	defg
RGT Atlantis	1.25	efg
Combat	1.23	efg
SCA25-Y006	1.21	efg
RGT Planet	1.20	efg
RP21011	1.14	efg
Neo CL	1.11	efg
Minotaur	1.07	efg
Spinnaker	1.03	fg
Rocket CL	0.86	g
mean	***1.51***	
lsd(p=0.05)	***0.578***	

VARIETY	Test Weight (kg/HL)	Sig diff
Kokoda*	77.62	a
Rocket CL	71.60	b
Minotaur	71.58	b
AGT-Bunyip IA	71.56	b
Bigfoot CL	71.37	bc
RP19034	71.35	bc
Spinnaker	70.85	bcd
PegasusAX	70.77	cde
Granite CL	70.71	cde
Maximus CL	70.54	def
Cyclops	70.34	def
RGT Planet	70.32	def
Neo CL	70.27	def
Ember	70.06	efg
Spartacus	70.02	efg
RGT Asteroid	69.92	fgh
RGT Atlantis	69.82	fghi
RP21011	69.81	fghi
Combat	69.40	ghi
Soldier CL	69.26	hi
SCA25-Y006	69.16	i
Newton	66.74	j
mean	***70.59***	
lsd(p=0.05)	***0.740***	

Means followed by same letter do not significantly differ

DISCUSSION

It is important to acknowledge that these results represent a single set of trials conducted in one season. Consequently, varietal decisions should not be based solely on the outcomes of a single trial, in a single year. Instead, these results should be considered alongside long-term multi-environment trial (MET) analysis through the National Variety Trials (NVT), which draws on five years of data across multiple sites.

While yield is a key consideration when selecting cereal varieties, other varietal characteristics, and agronomic traits, such as disease resistance, lodging tolerance, maturity and acid tolerance, should also be considered.

These trials demonstrated the variation in varietal performance under the specific dryland and irrigation conditions experienced in 2025. In addition, they highlighted the potential of several experimental lines evaluated in the wheat, barley, and oat trials.

ACKNOWLEDGEMENTS

This trial was a collaboration between Ag Grow Agronomy and Research and HBS.

Ag Grow Agronomy and Research would like to thank trial co-operator Graeme Horneman for hosting the irrigated trial and providing assistance with the management of the trial.