



LongReach Optimus

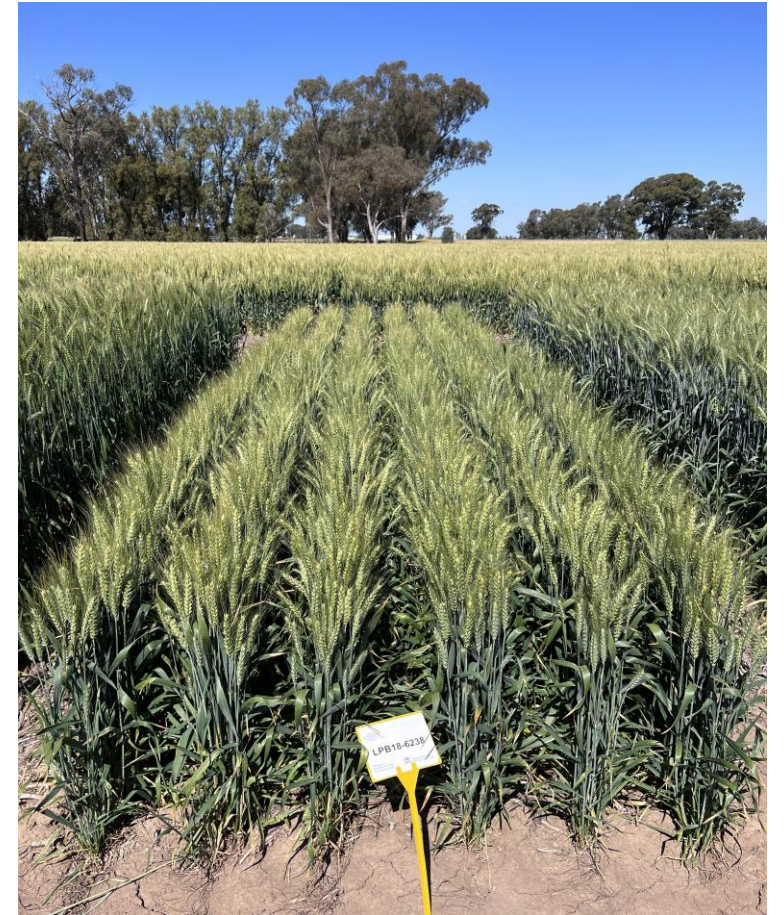
(LPB18-6238)

NSW & QLD AgroPack

WHEAT

LRPB Optimus - Mid Season Lancer type

- Mid maturity with similar plant type and yield build as its Lancer parent
- Consistent high trial performance across a range of sowing times in NSW and QLD
- Strong grain receivals package similar to Lancer
- Demonstrated high yield in both Acid and Sodic soil screening trials across multiple years
- AH Classification with upgrade submission planned in 2025



Yield Analysis – NVT Early Season Trials



NVT Northern Early Season Trials

Northern Early Season NVT MET Analysis (2020-2024)							
Variety	Maturity	2020	2021	2022	2023	2024	All Years
RockStar	Mid Spring	107.9%	106.5%	96.0%	107.8%	105.4%	103.9%
LRPB Optimus	Mid Spring			106.0%	110.2%	108.4%	109.4%
Sundancer	Mid Spring			108.8%	111.1%	108.3%	111.2%
Leverage	Mid Slow Spring			110.8%	112.8%	111.0%	113.8%
LRPB Flanker	Mid Slow Spring	102.6%	96.1%	95.9%	101.7%	96.0%	97.9%
Coolah	Mid Slow Spring	108.1%	103.5%	99.6%	105.5%	101.7%	103.2%
LRPB Stealth	Mid Slow Spring	106.8%	101.6%	98.3%	104.7%	100.3%	101.8%
LRPB Lancer	Mid Slow Spring	101.4%	98.0%	95.8%	101.5%	98.0%	98.5%
LRPB Raider	Slow Spring	112.3%	105.5%	102.4%	107.2%	102.5%	105.5%
Sunflex	Slow Spring	105.3%	104.7%	98.9%	104.8%	103.9%	103.1%
Sunmax	Slow Spring	94.2%	95.7%	98.3%	94.9%	95.1%	95.9%
Average Mean Yield (t/ha)		3.64	4.66	5.14	3.27	4.71	4.31
Trials in Analysis		20	23	23	19	16	101

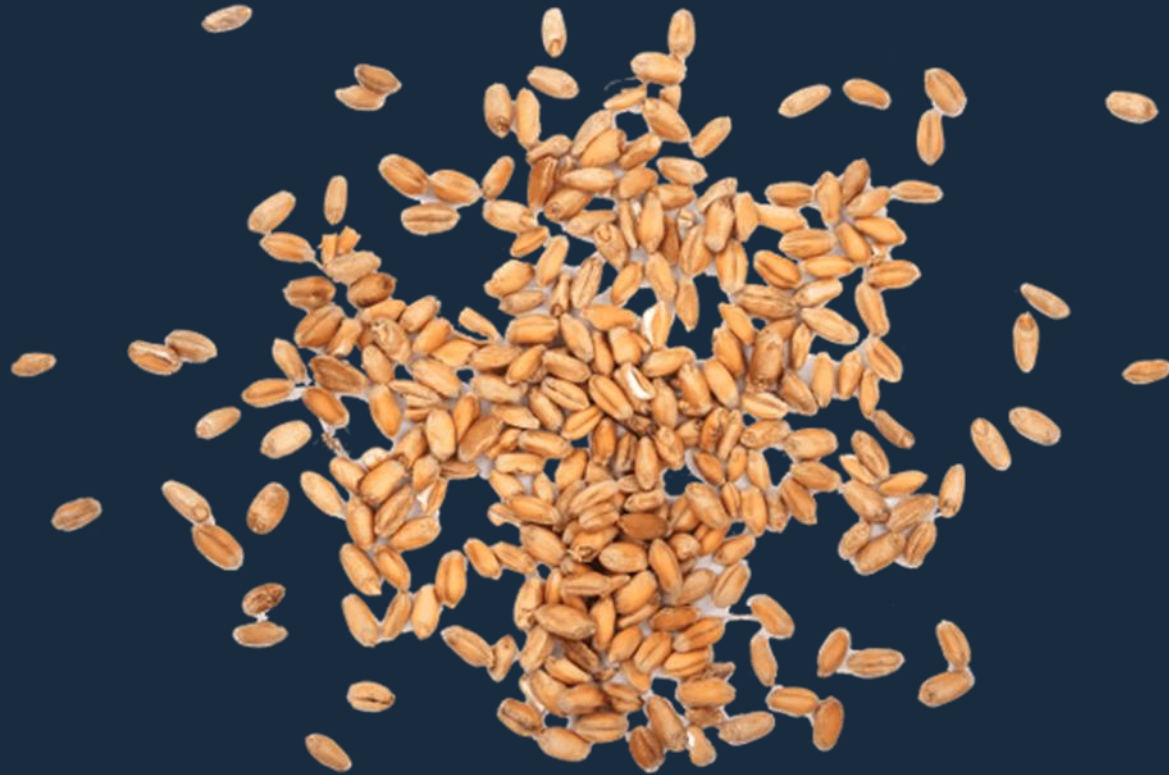
MET data only reported in those years that Varieties appeared in NVT Trials.
Predicted yield performance across all years is included in final column

NVT Sth NSW Early Season Trials

Sth NSW Early Season NVT MET Analysis (2020-2024)							
Variety	Maturity	2020	2021	2022	2023	2024	All Years
Beckom	Mid Spring	97%	97%	93%	107%	99%	98%
Catapult	Mid Spring	99%	99%	87%	109%	104%	99%
Coota	Mid Spring	98%	97%	87%	109%	102%	98%
LRPB Optimus	Mid Spring			109%	108%	104%	106%
Sundancer	Mid Spring			107%	106%	104%	106%
LRPB Major	Mid Slow Spring			100%	109%	106%	105%
Leverage	Mid Slow Spring			106%	110%	106%	107%
Coolah	Mid Slow Spring	97%	97%	95%	100%	99%	97%
LRPB Raider	Slow Spring	97%	98%	95%	100%	99%	98%
Stockade	Very Slow Spring			113%	98%	105%	107%
RGT Accroc	Slow Winter	106%	109%	135%	89%	100%	107%
Mean Yield (t/ha)		6.04	6.45	5.78	5.31	5.35	5.85
Trials in Analysis		13	13	12	11	7	56

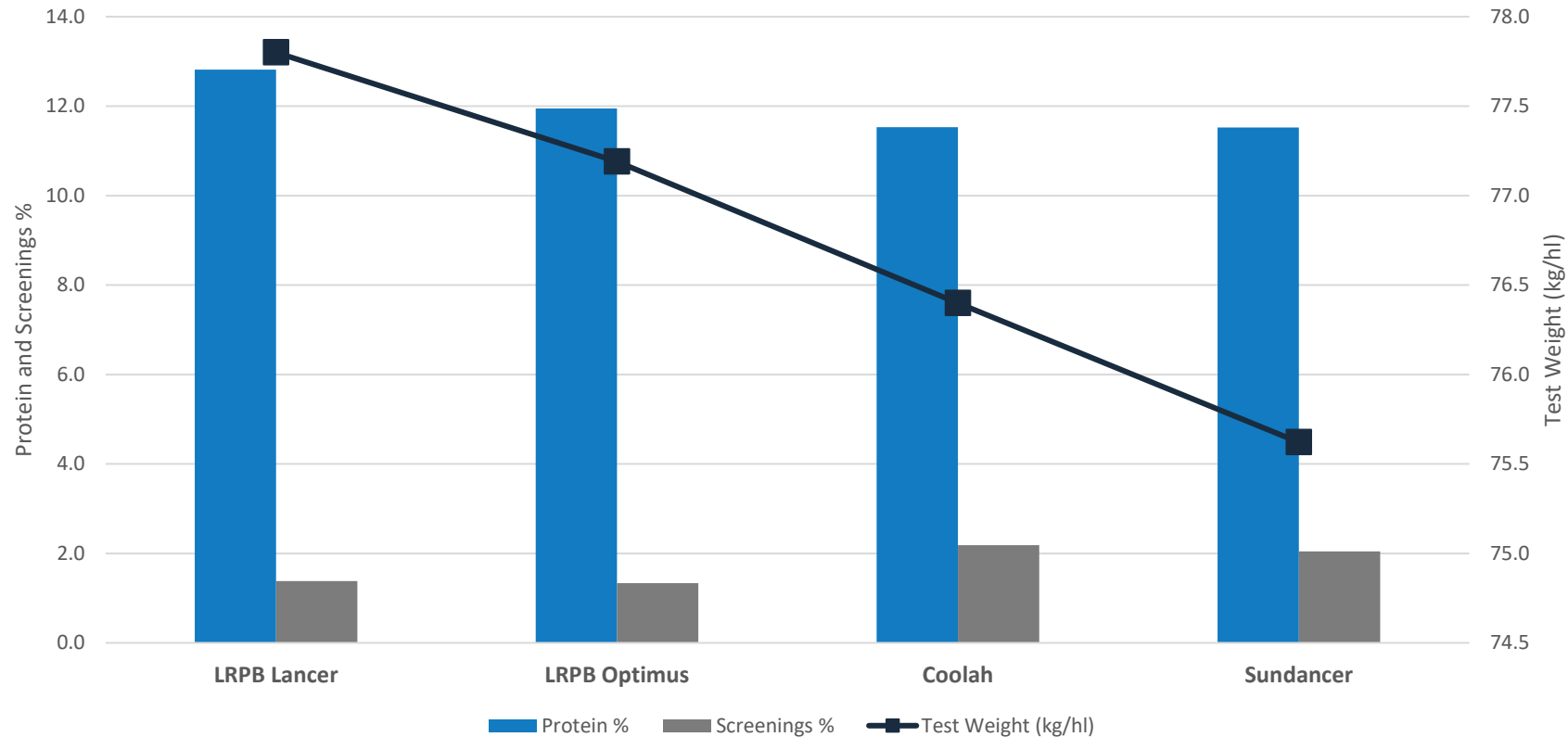
MET data only reported in those years that Varieties appeared in NVT Trials.
 Predicted yield performance across all years is included in final column

Grain Recievals



Grain Quality - NVT

Average NSW Early Season NVT Grain Quality 2022-23
(19 Trials where LRPB Optimus is present)



- LRPB Optimus has shown similar Screenings and Test Weight as Lancer throughout the LRPB breeding program and is showing similar performance in the Early season NVT trials.
- Protein accumulation appears to be slightly behind Lancer across the data set, but is still performing better for this trait than similar varieties on the market and may be attributed to yield dilution when compared to Lancer

AMPS Research TOS Trials 2023

	AMPS Premier 2023 TOS Trial - Yield & Revenue (APH/AH Varieties)					
	5th May		24th May		13th June	
	Yield (t/ha)	\$/ha	Yield (t/ha)	\$/ha	Yield (t/ha)	\$/ha
LRPB Optimus	7.23	\$2,112.53	6.92	\$1,993.46	6.24	\$1,865.51
Sunmaster	6.99	\$1,977.81	7.16	\$2,041.52	6.68	\$1,906.76
Leverage	7.57	\$2,194.53	6.87	\$1,934.75	6.16	\$1,710.05
LRPB Lancer	6.95	\$2,008.06	6.32	\$1,896.44	5.90	\$1,728.85
LRPB Raider	7.30	\$2,091.99	6.77	\$1,838.20	6.12	\$1,693.57
LRPB Tracer	6.27	\$1,875.10	6.18	\$1,718.27	6.49	\$1,962.99
Sunblade CL	7.14	\$2,036.40	6.68	\$1,863.79	5.45	\$1,444.84
Coota	6.92	\$1,993.96	6.07	\$1,639.24	6.04	\$1,664.01
Sundancer	7.24	\$2,070.71	6.25	\$1,652.72	5.55	\$1,479.78
LRPB Hellfire	6.28	\$1,753.20	6.18	\$1,717.01	5.72	\$1,544.63
Intrigue	6.43	\$1,809.96	5.99	\$1,608.95	5.82	\$1,583.05
Jillaroo*	6.17	\$1,713.69	5.92	\$1,585.77	6.08	\$1,681.86
LRPB Mustang	5.85	\$1,594.51	6.45	\$1,781.49	5.69	\$1,535.25

	AMPS Gurley TOS Trial 2023 - Yield & Revenue (APH/AH Varieties)					
	25th April		13th May		30th May	
	Yield (t/ha)	\$/ha	Yield (t/ha)	\$/ha	Yield (t/ha)	\$/ha
LRPB Optimus	6.59	\$ 2,048.43	5.20	\$ 1,491.43	4.43	\$ 1,017.11
Sunmaster	6.03	\$ 1,823.97	5.36	\$ 1,553.82	4.70	\$ 1,113.96
LRPB Tracer	5.69	\$ 1,688.12	5.11	\$ 1,454.65	4.53	\$ 1,219.62
LRPB Raider	6.23	\$ 1,903.88	4.68	\$ 1,280.76	4.01	\$ 1,013.24
Intrigue	6.09	\$ 1,847.82	5.34	\$ 1,546.78	3.48	\$ 799.03
Sundancer	6.64	\$ 2,069.09	4.67	\$ 1,279.26	3.84	\$ 802.32
Sunblade CL	5.60	\$ 1,652.10	5.11	\$ 1,265.65	4.60	\$ 1,079.47
Coota	5.98	\$ 1,803.73	4.67	\$ 1,277.42	3.63	\$ 857.36
LRPB Mustang	5.30	\$ 1,530.66	4.81	\$ 1,335.32	4.35	\$ 986.27
Leverage	5.82	\$ 1,740.30	4.74	\$ 1,128.93	4.09	\$ 893.03
LRPB Lancer	6.22	\$ 1,901.98	4.19	\$ 1,085.03	3.17	\$ 673.64
LRPB Hellfire	5.00	\$ 1,409.65	4.28	\$ 1,121.08	3.81	\$ 930.35
Jillaroo*	5.49	\$ 1,606.05	4.23	\$ 1,098.72	3.42	\$ 646.55

In 2023 AMPS Research conducted a number of TOS trials across Nth NSW. Yield and Quality data from these trials were analysed to determine which varieties were found to have the highest return to the grower in the trials. LRPB Optimus was consistently one of the highest returning varieties in the trials demonstrating grain receivals specs similar to those seen in its Lancer parent across a range of sowing times.

*Predicted AH classification at time of data preparation

	AMPS Armatree TOS Trial 2023 - Yield & Revenue (APH/AH Varieties)					
	26th April		11th May		31st May	
	Yield (t/ha)	\$/ha	Yield (t/ha)	\$/ha	Yield (t/ha)	\$/ha
LRPB Lancer	5.29	\$ 1,438.44	4.02	\$ 916.13	3.36	\$ 667.75
Sundancer	5.37	\$ 1,423.08	4.06	\$ 927.38	3.10	\$ 565.06
Sunmaster	5.38	\$ 1,427.96	4.21	\$ 982.26	2.88	\$ 409.21
LRPB Optimus	5.14	\$ 1,338.97	4.08	\$ 932.33	3.04	\$ 546.38
LRPB Tracer	5.33	\$ 1,409.32	4.11	\$ 945.87	2.69	\$ 412.41
Jillaroo*	5.38	\$ 1,427.06	3.72	\$ 797.03	2.90	\$ 414.58
Sunblade CL	5.37	\$ 1,278.29	4.03	\$ 809.55	3.04	\$ 463.67
LRPB Raider	4.95	\$ 1,265.42	4.00	\$ 903.10	2.77	\$ 368.68
LRPB Mustang	4.79	\$ 1,202.66	3.85	\$ 846.45	2.98	\$ 441.54
Leverage	5.18	\$ 1,351.78	3.88	\$ 758.00	2.71	\$ 347.79
LRPB Hellfire	4.70	\$ 1,209.27	3.68	\$ 782.08	2.69	\$ 341.51
Intrigue	4.48	\$ 1,125.75	3.74	\$ 807.21	2.56	\$ 295.70
Coota	4.78	\$ 1,201.05	3.19	\$ 598.44	2.42	\$ 309.65

We're
growing here.

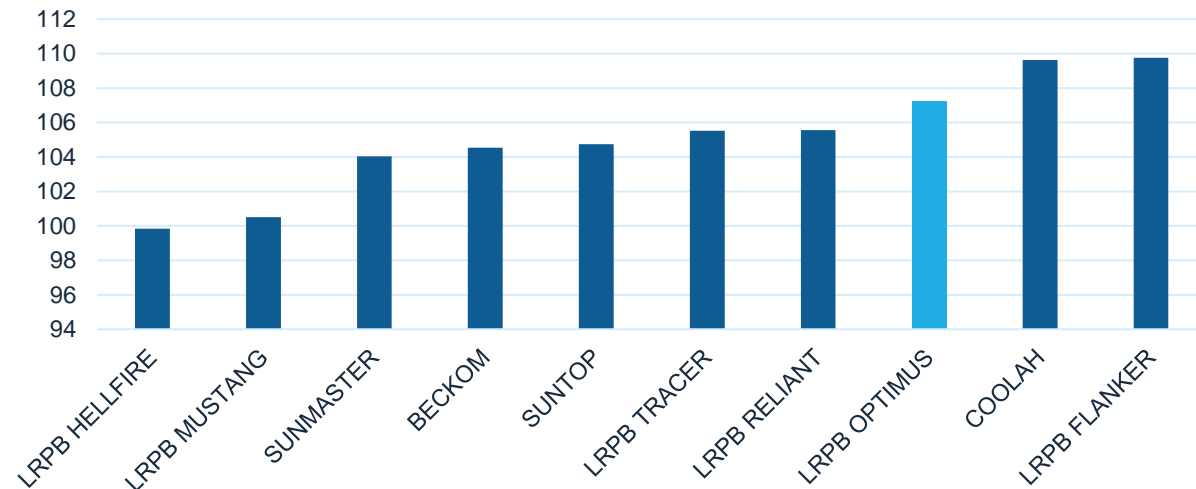
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Agronomy

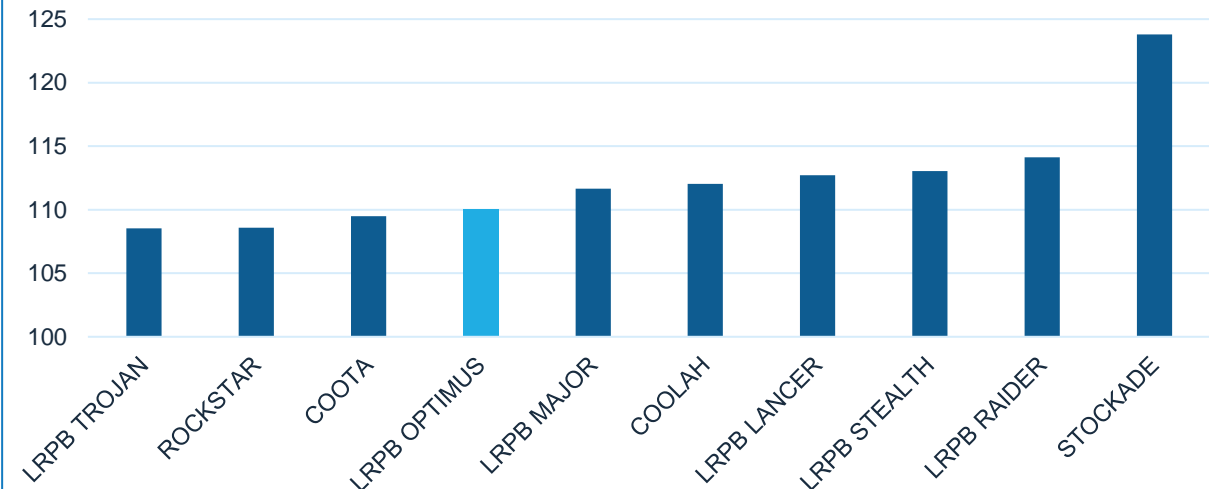


Mid Spring Maturity– Nth NSW & QLD

Average Days to 50% Heading
LRPB Northern Main Season Trials 2021-2022 (7 Trials)



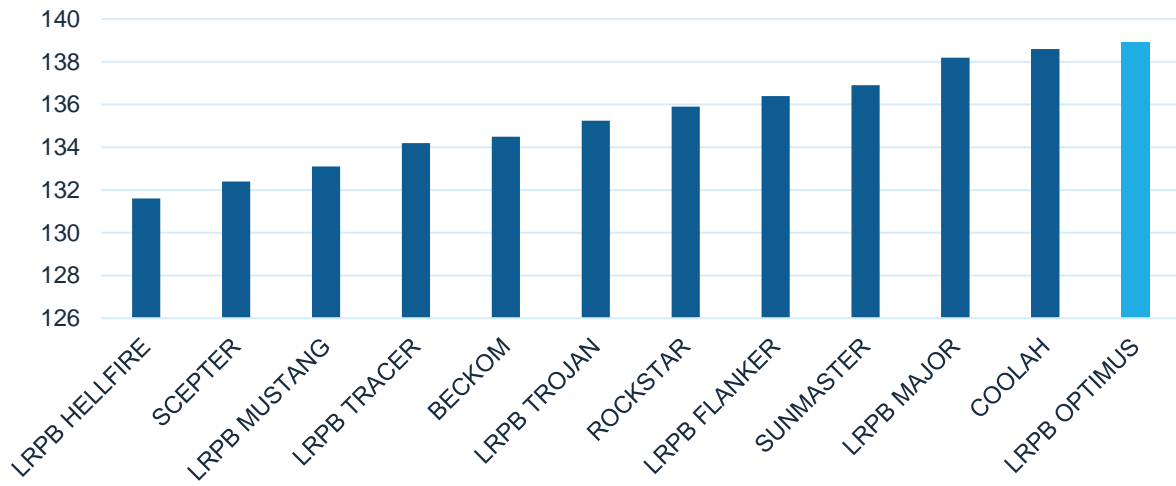
Average Days to 50% Heading
LRPB Northern Early Season Trials 2021-23 (6 Trials)



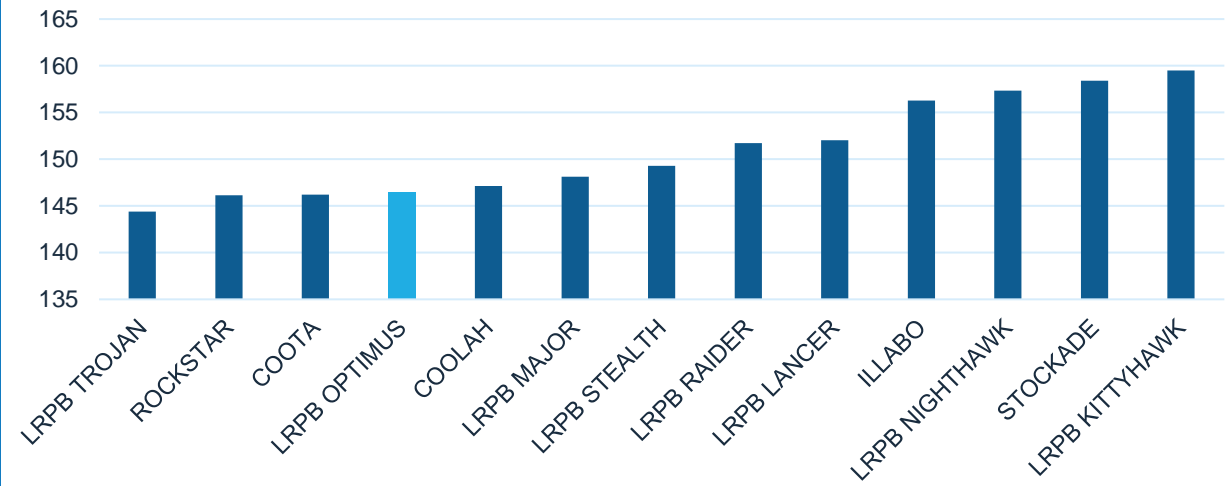
- 2-3 Days Quicker maturity than Lancer and Coolah across both Early and Main Season trials.
- Field Observations indicate a similar heading and flowering pattern to its Lancer parent (ie tiller dominance and synchronized flowering)
- Stable relative maturity in Nth NSW & QLD, which indicates a preferred sowing window in the first three weeks of May across most area's in the Northern zone

Mid Spring Maturity – Sth NSW

Average Days to 50% Heading
LRPB Sth NSW Main Season Trials 2021-23 (5 Trials)



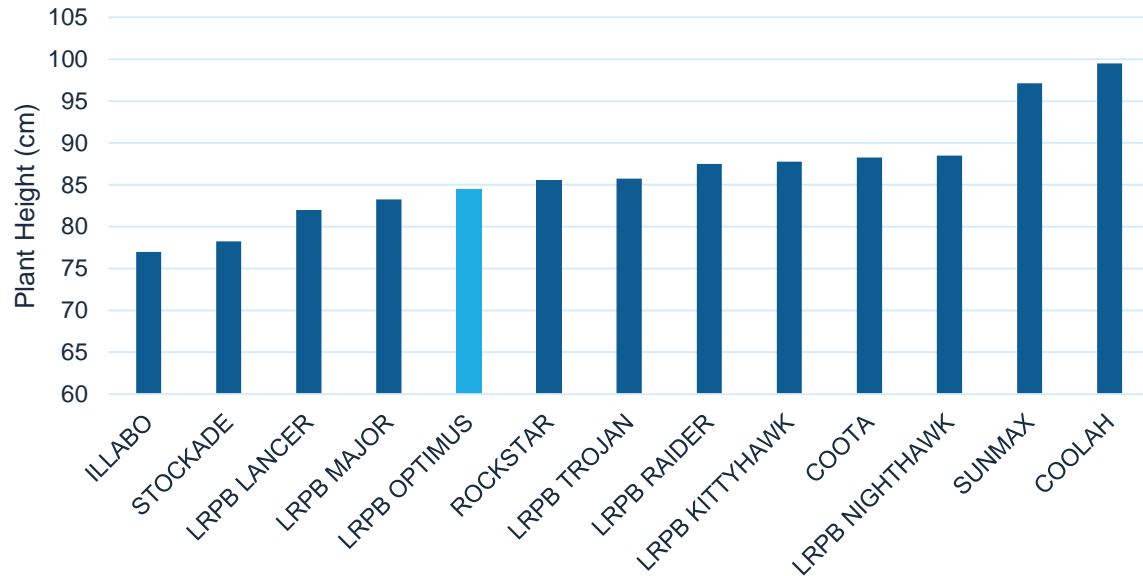
Average Days to 50% Heading
SNSW LRPB Early Season Trials 2021-23 (7 Trials)



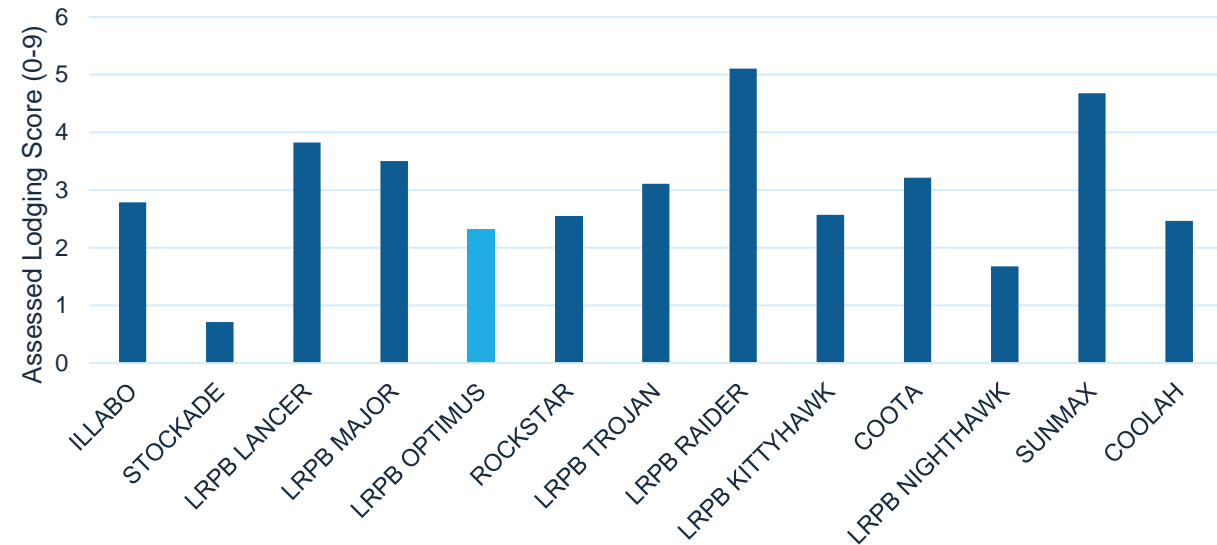
- Slightly longer season than Coolah in Main Season trials (sown >10th May) but relative maturity is slightly quicker in Early Season trials (sown 25th April -10th May)
- Highly stable relative maturity across the last three season regardless of sowing window, which indicating a preferred sowing window of the first three weeks of May in Southern NSW

Plant Height and Lodging

Average Plant Height LRPB Early Season Trials
2021-2023 (8 Trials)



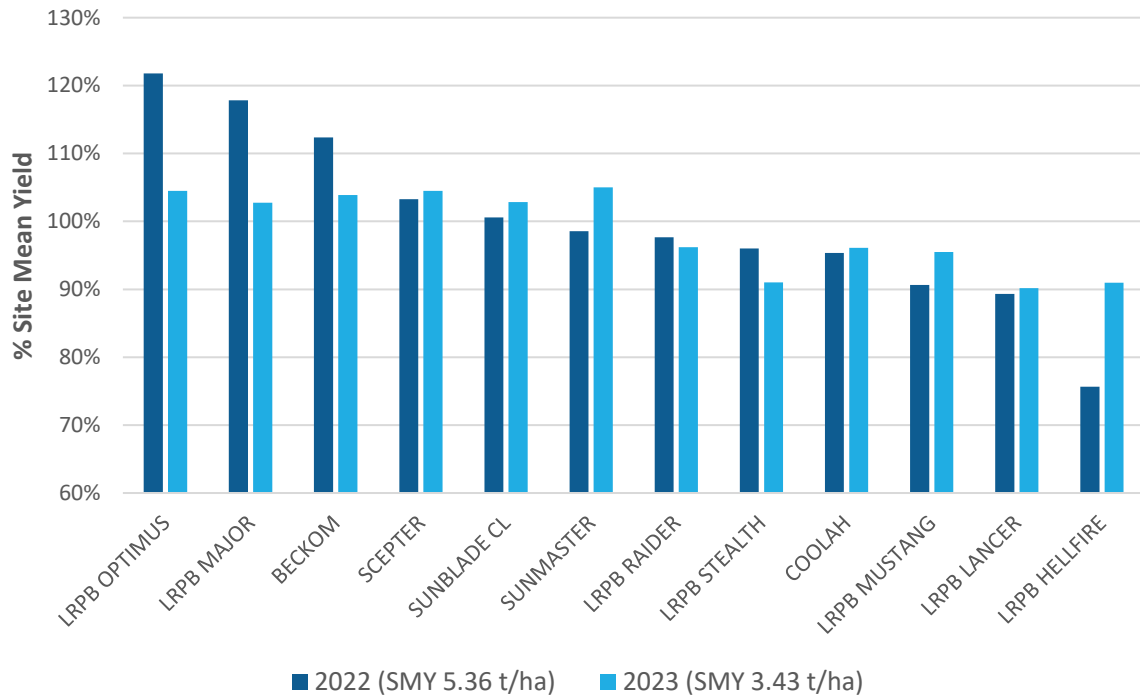
Average Lodging Score (0-9) LRPB Early Season Trials
2021-2023 (7 Trials)
Sorted by average plant height



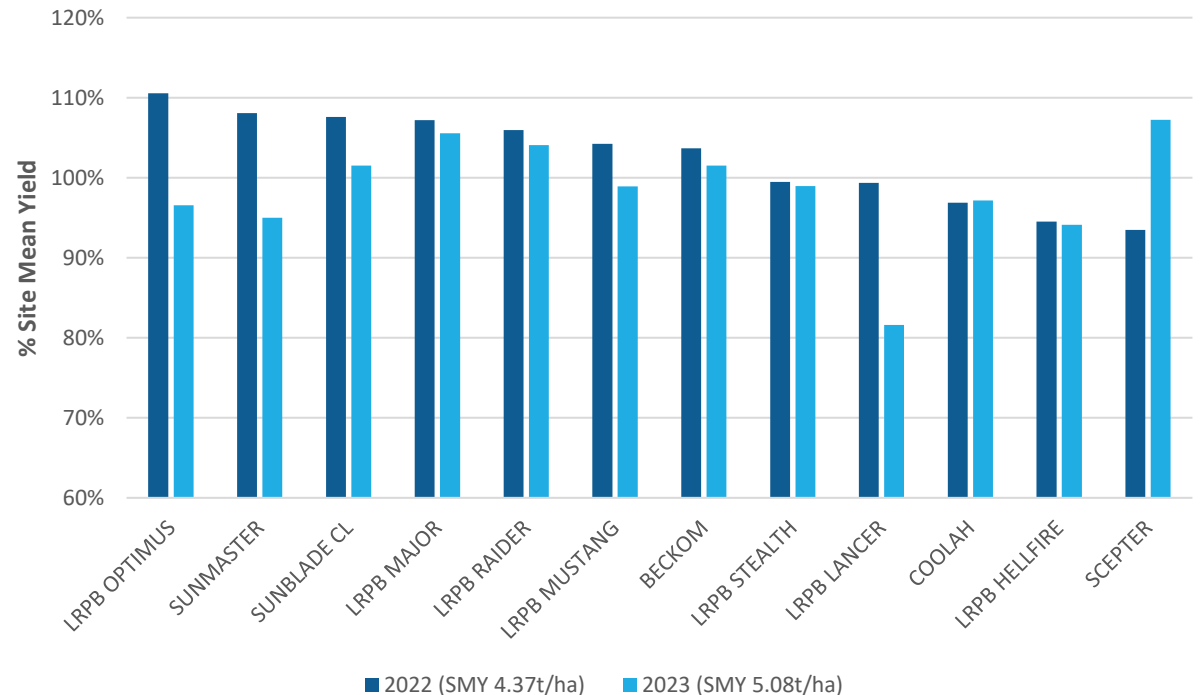
- Slightly taller than Lancer or Major, but shorter than Raider
- Good straw strength with lodging resistance similar to Coolah and better than varieties considered robust for lodging such as Lancer

LRPB Abiotic Screening Trials 2022/23

LRPB Griffith Acid Screening Trial 2022-23



LRPB Lockhart Sodic Soil Screening Trial 2022-23



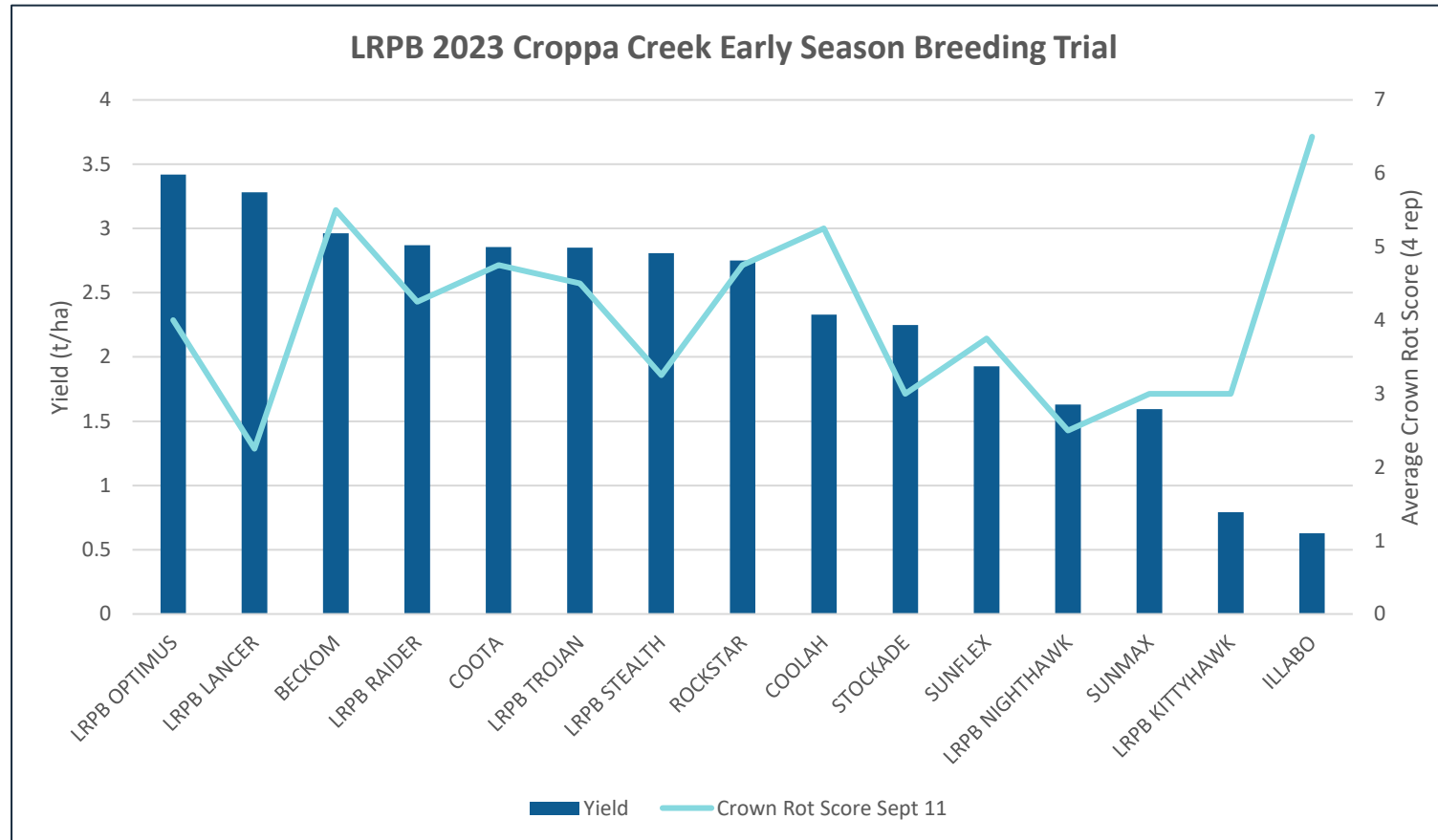
LRPB Optimus has been a consistent high performer in Abiotic Yield trials run as part of the LongReach breeding program even when planted outside its optimal sowing window. These trials are typically planted later in the sowing window and typically favour Mid Quick Spring or faster maturity varieties.

Disease

	Leaf Rust resistance	Stem Rust resistance	Stripe Rust (2025 East Coast) Resistance	Septoria Tritici Blotch Resistance	Yellow Leaf Spot resistance	Crown Rot resistance	Powdery Mildew resistance	p.thornei tolerance	p.thornei resistance	Black Point resistance
Beckom	MSS	MRMS	MRMS	S	MSS	S	S	TMT	MSS	MRMS
Calibre	S	MR	S	S	MRMS	S	MSS	MII	MSS	MSS
Coolah	RMR	MR	MSS	MSS	MSS	MSS	MSS	MT	MS	S
Leverage	RMR	MR	MRMS	S	MRMS	S	SVS	TMT	MS	S
LRPB Hellfire	MSS	MR	MRMS	S	MSS	MSS	SVS	MI	MSS	S
LRPB Kittyhawk	MR	MRMS	MR	MRMS	MRMS	SVS	MS	I	S	MRMS
LRPB Lancer	RMR	R	RMR	MSS	MS	MSS	MR	TMT	MS	MRMS
LRPB Major	MR	MRMS	MRMS	MSS	MS	MSS	MSS	MTMI	MSS	MSS
LRPB Optimus	RMR	MR	MRMS	S	MSS	MSS	MSS	MTMI	MS	MS
LRPB Raider	RMR	RMR	MR	S	MSS	S	MSS	TMT	MS	MSS
LRPB Stealth	RMR	R	RMR	MSS	MS	MSS	MRMS	MTMI	S	MRMS
LRPB Tracer	MRMS	MS	MRMS	S	MSS	S (P)	MSS	MT (P)	MSS	SVS (P)
RockStar	S	MRMS	S	S	MRMS	S	SVS	MI	MS	MSS
Scepter	MSS	MRMS	S	S	MRMS	MSS	SVS	MT	MSS	MS
Stockade	MR	MS	MR	MS	MRMS	S	SVS	MTMI	MSS	MRMS
Sundancer	RMR	MR	MR	MSS	MS	MSS	S	MTMI	MS	S
Data Accessed 10/4/25 https://nvt.grdc.com.au/nvt-disease-ratings . (P) indicates provisional rating.										

LRPB Optimus has a well rounded disease package suitable for all regions of NSW and QLD with highly manageable levels of stripe rust resistance.

Yield Performance Under Severe Crown Rot Pressure



- In 2023 LRPB planted trials under heavy natural crown rot pressure at Croppa Creek
- LRPB Optimus was the highest yielding line in the trial demonstrating its ability to maintain yield under severe crown rot pressure similar to its Lancer parent even though it has received an S Resistance rating from NVT.
- Further investigation on LRPB Optimus performance under Crown Rot pressure is currently underway by LRPB but early indications point to Optimus performing similarly to its Lancer parent

LRPB Optimus – Mid Season Lancer



LRPB Optimus is available for sowing in 2025 through our Seed Associate Network

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