LRPB TRACER

Mid maturity APH with a compact canopy

October 2023

WHEAT

LRPB Tracer – Mid Maturity with a compact canopy

- LRPB Mustang cross made with the aim to build a variety with strong acid and sodic soil tolerances suitable for NSW and QLD
- Stable Mid maturity variety suitable for a Mid Season sowing window across NSW and QLD
- Good Disease package for NSW and QLD market combined with a compact plant type
- APH classification NSW & QLD

LongReach PLANT BREEDERS

Pacific Seeds
Growing possibilities

Agronomy

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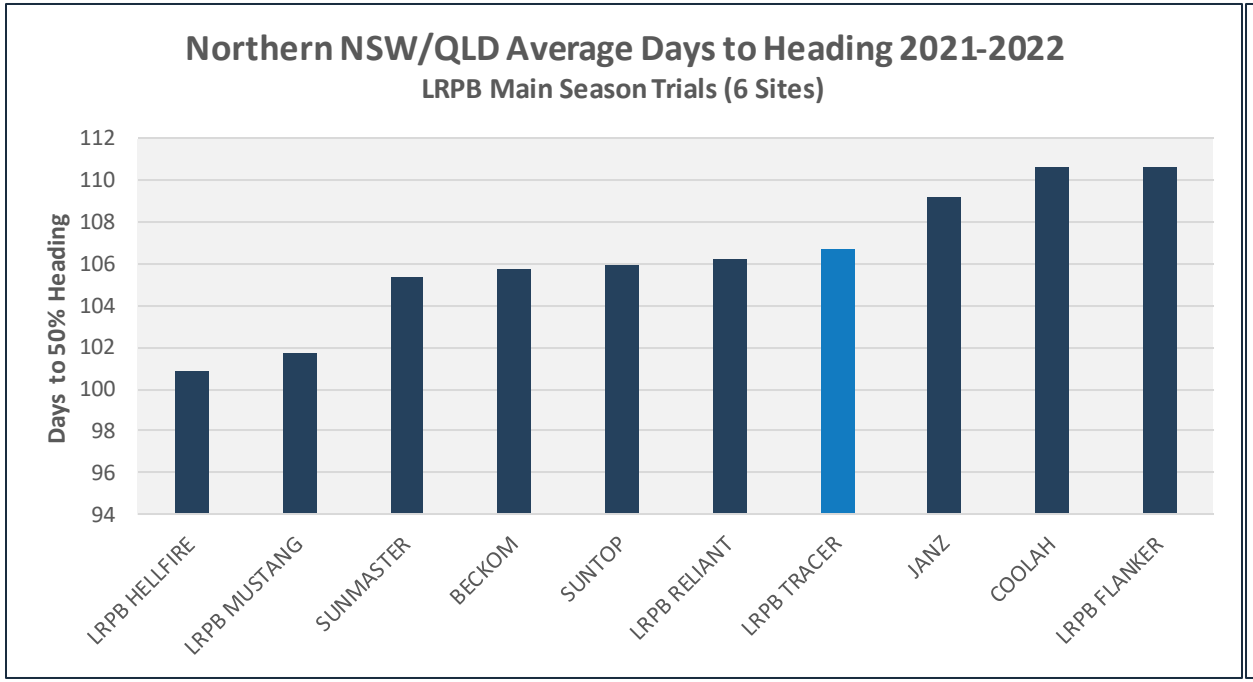
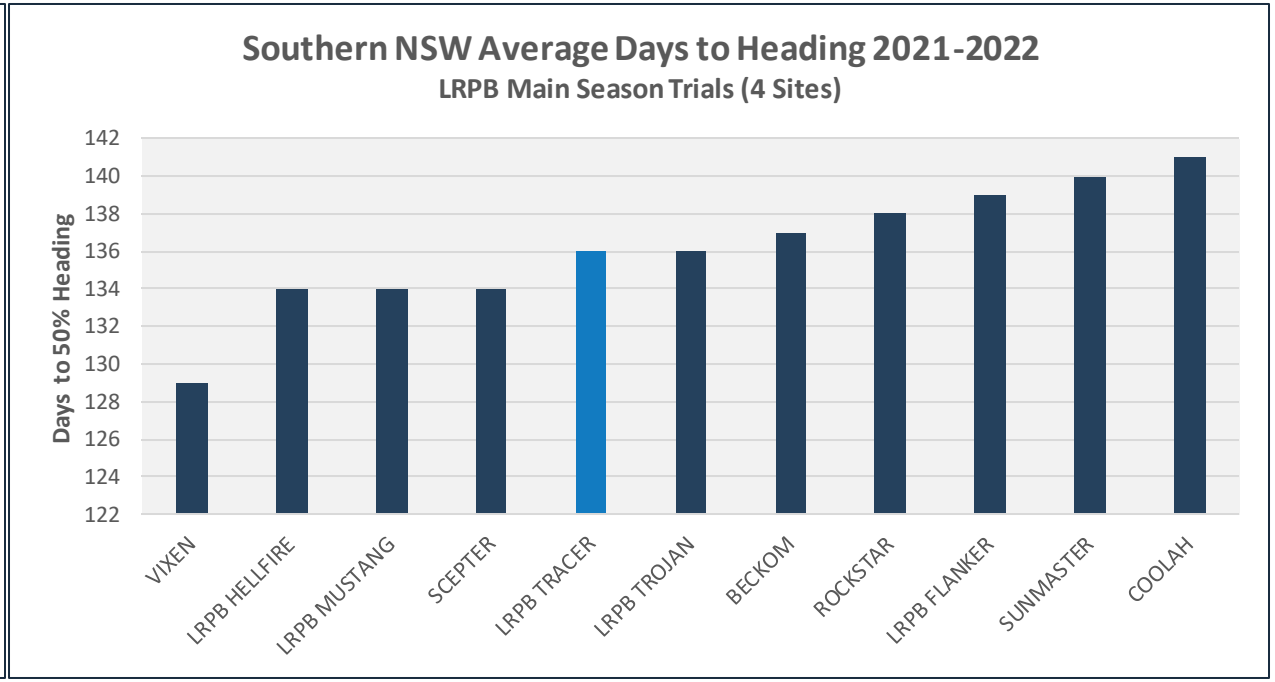
Pacific Seeds
Growing possibilities

LRPB Tracer – Mid Spring Wheat

Phenology - LRPB Main Season Trials





- Mid Maturity (Australian Cereal Phenology Classification System)
- Multi year phenology data suggests well suited for a main season planting window across NSW and QLD that will suit a similar planting window as Suntop and LRPB Reliant

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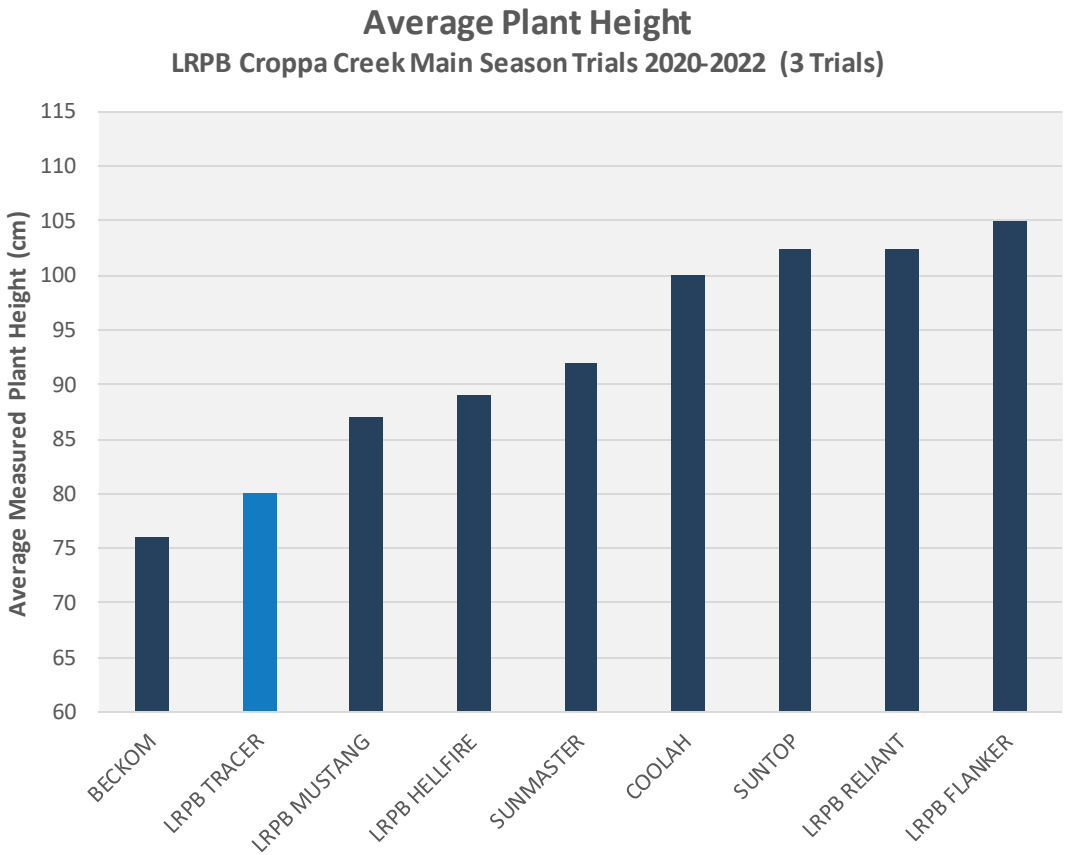
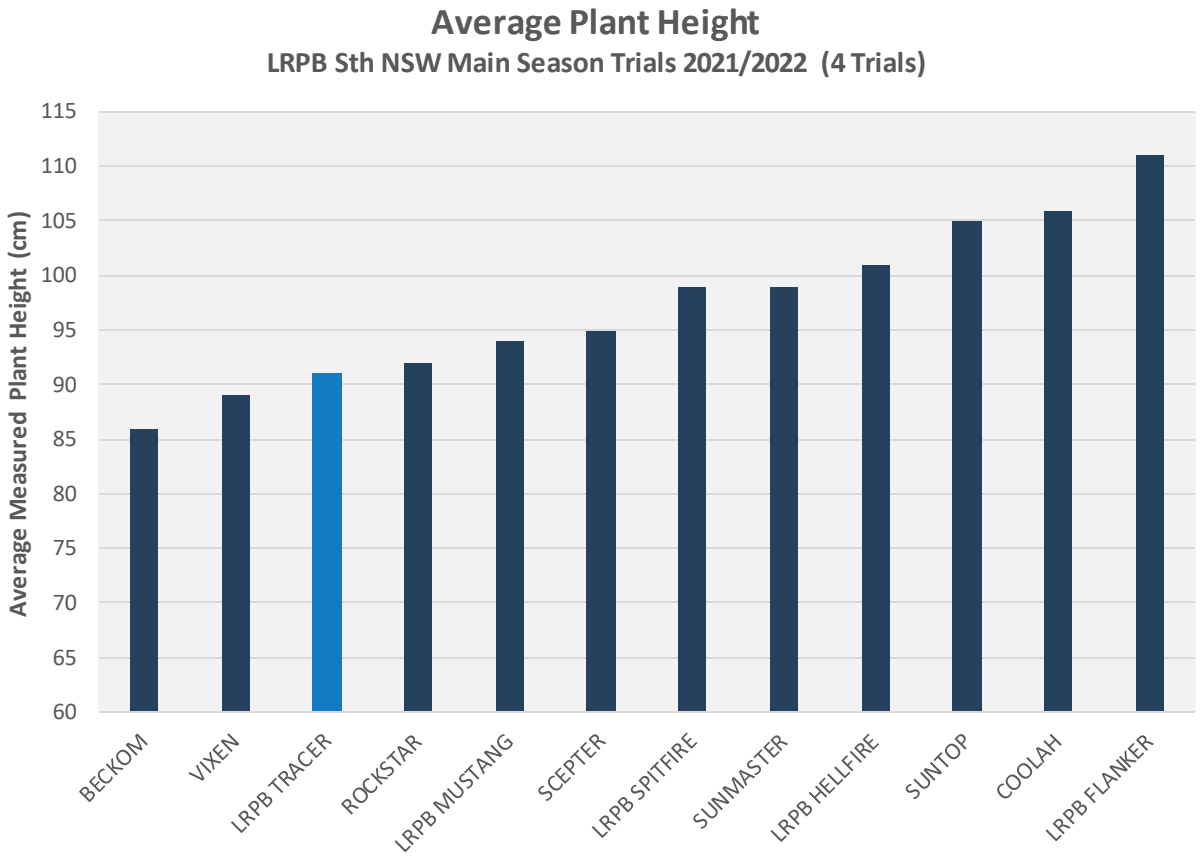
Pacific Seeds
Growing possibilities

LRPB Tracer – Plant Height





LRPB Tracer has a short compact canopy well suited to full stubble retention farming across the east coast. This may also form a key part in integrated disease management systems for disease's such as Crown Rot

https://grdc.com.au/resources-and-publications/grdc-update-papers/tab-content/grdc-update-papers/2022/02/harvest-height-implications-for-fusarium-crown-rot-management

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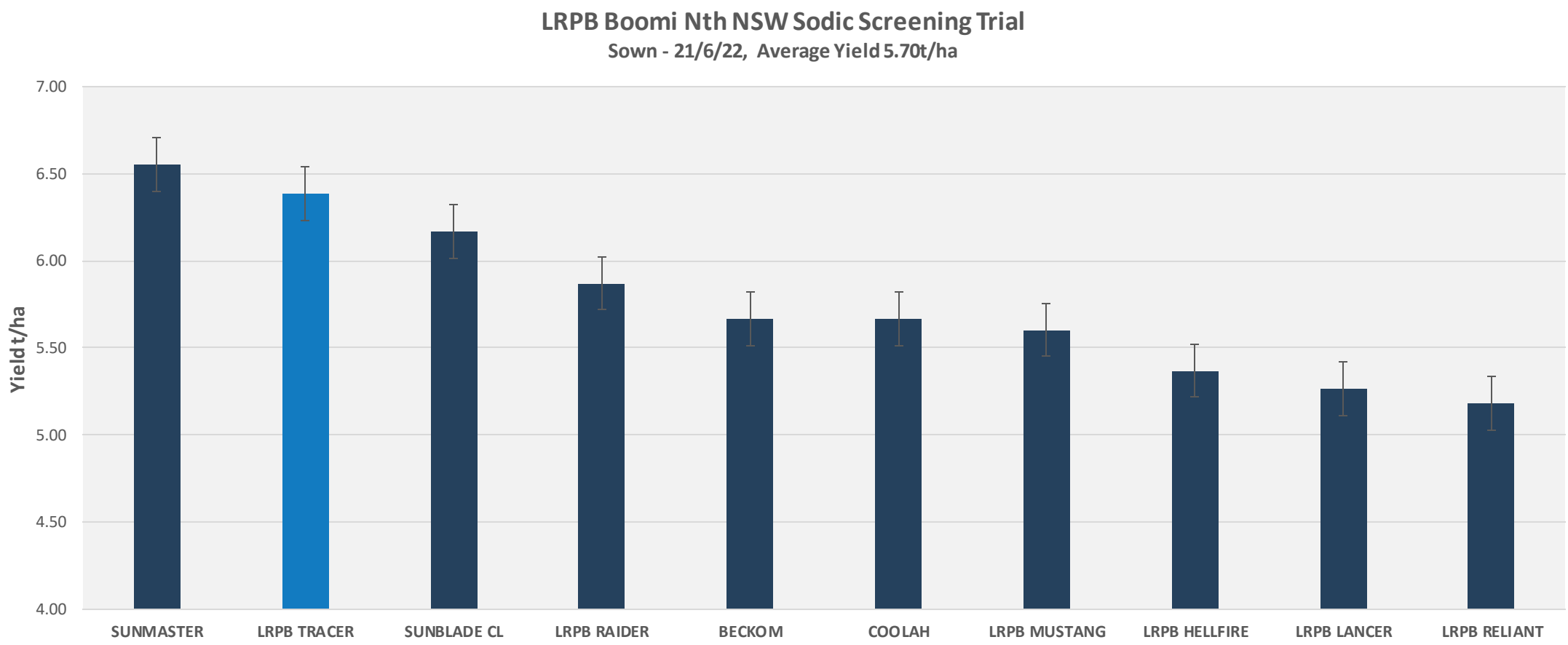
Growing possibilities

LRPB Northern NSW Sodic Soil Screening Trial 2022



LRPB Tracer has shown excellent yields under highly sodic conditions (ESP >10) outyielding current varieties widely used in highly sodic soils in Northern farming systems during 2022.

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Pacific Seeds
Growing possibilities

Due to the wet harvest in 2021 there was a lack of suitable seed to include LRPB Tracer in National Variety Trials. As a result no NVT yield or disease data will be available until early 2024. LRPB Tracer has been entered across all NSW and QLD mains season trials in 2023. All data presented has been generated by LongReach Plant Breeders using the same field trial, disease screening, and statistical analysis service providers utilized to carry out NVT data generation.

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Pacific Seeds
Growing possibilities

Yield Analysis

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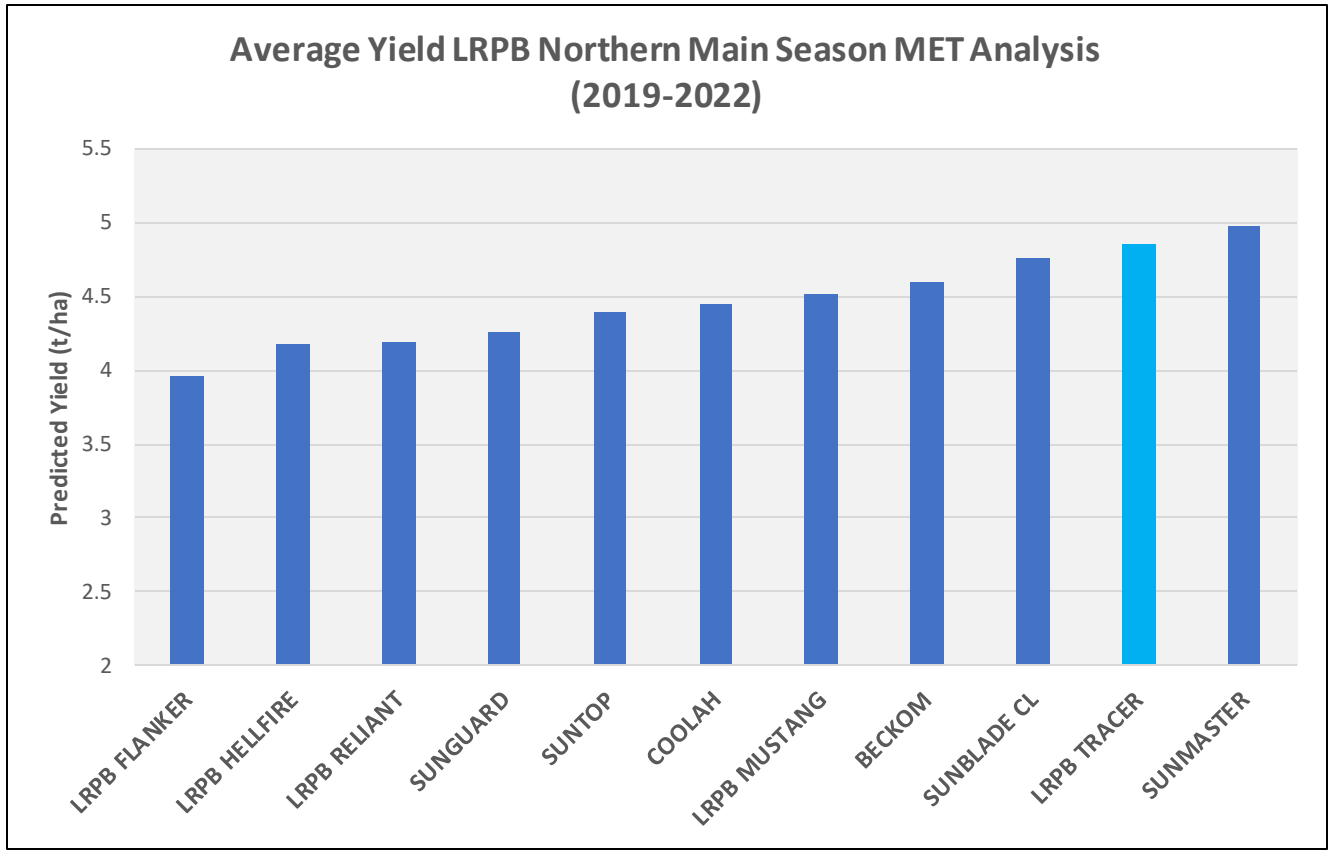
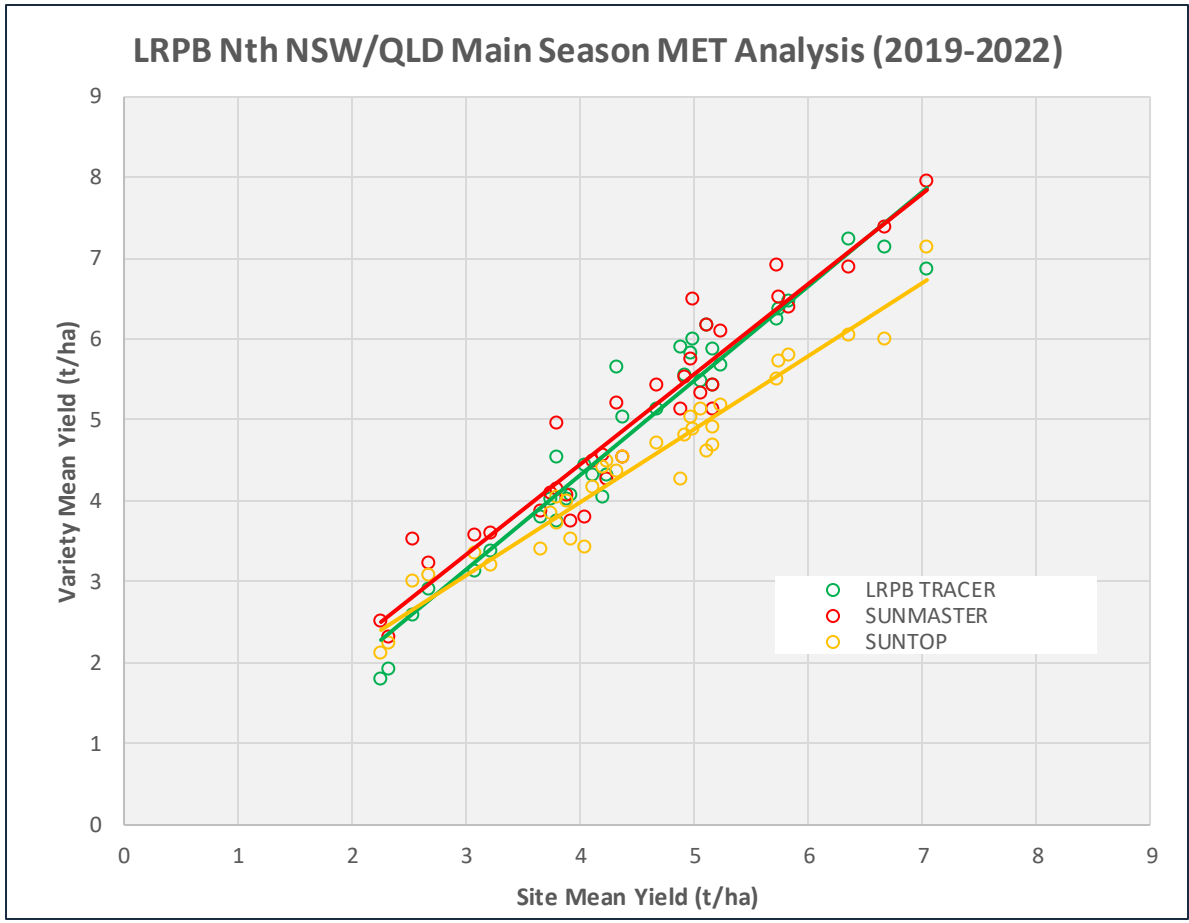
Pacific Seeds
Growing possibilities

LRPB Northern NSW/QLD Main Season MET Analysis (2019-2022)
Yield Regression





LRPB Tracer has been one of the highest yielding breeding lines across a number of years within LRPB main season breeding trials especially across 3 – 5 t/ha yield ranges.

Note – Sunmaster/Sunblade first appeared in LRPB trials in 2021. As a result all yield data from the lower yield years of 2019/20 is predicted

LongReach PLANT BREEDERS

Pacific Seeds
Growing possibilities

LRPB Nth NSW/QLD Main Season MET Analysis (2019-2022)
Trial Cluster Analysis

LRPB Nth NSW/QLD Main Season Trials MET Analysis 2019-2022							
Variety	Maturity	2020 Goondiwindi. 27/4/20 Sown.	C1 - Nth Yield Drivers (RLN, Cr, Stored Moisture)	C2 - Low Protein/Late N Applied Trials	C3 - 2020 Low Disease, Mod Yielding Trials	C4 - Early Disease, High Yielding Trials	All Trials
SUNMASTER*	Mid	104.9%	116.6%	107.1%	105.8%	116.6%	112.9%
LRPB TRACER	**Mid**	**80.7%**	**114.1%**	**104.6%**	**105.3%**	**114.5%**	**110.3%**
SUNBLADE*	Mid	101.9%	110.3%	105.8%	103.6%	109.7%	107.9%
BECKOM	Quick - Mid	112.5%	107.9%	102.1%	109.2%	99.7%	104.3%
LRPB MUSTANG	Quick	99.0%	106.0%	95.4%	104.3%	101.8%	102.4%
COOLAH	Mid - Slow	123.1%	84.7%	99.0%	106.2%	107.7%	100.9%
SUNTOP	Quick - Mid	94.8%	107.4%	97.0%	99.8%	96.4%	99.8%
SUNGUARD	Mid	97.1%	97.6%	90.6%	100.3%	96.1%	96.6%
LRPB RELIANT	Mid	110.3%	98.3%	95.2%	104.6%	87.7%	95.3%
LRPB HELLFIRE	Quick - Mid	92.8%	102.7%	89.1%	99.2%	89.8%	94.9%
LRPB FLANKER	Mid	104.6%	83.2%	93.6%	105.1%	84.3%	89.8%
LRPB SPITFIRE	Quick	84.6%	89.1%	82.9%	83.1%	94.5%	89.1%
LRPB LINCOLN	Quick	101.8%	88.0%	92.5%	96.2%	84.3%	89.1%
Mean Yield		**2.30**	**3.81**	**4.92**	**4.09**	**5.34**	**4.41**
Trials in Analysis		**2**	**10**	**4**	**7**	**11**	**34**
* Indicate varieties that have only been included in LRPB trials for 2 Years or less and so have a relatively high degree of prediction							

LongReach PLANT BREEDERS

Pacific Seeds
Growing possibilities

LRPB Nth NSW/QLD Main Season MET Analysis (2019-2022)
Trial Year Analysis

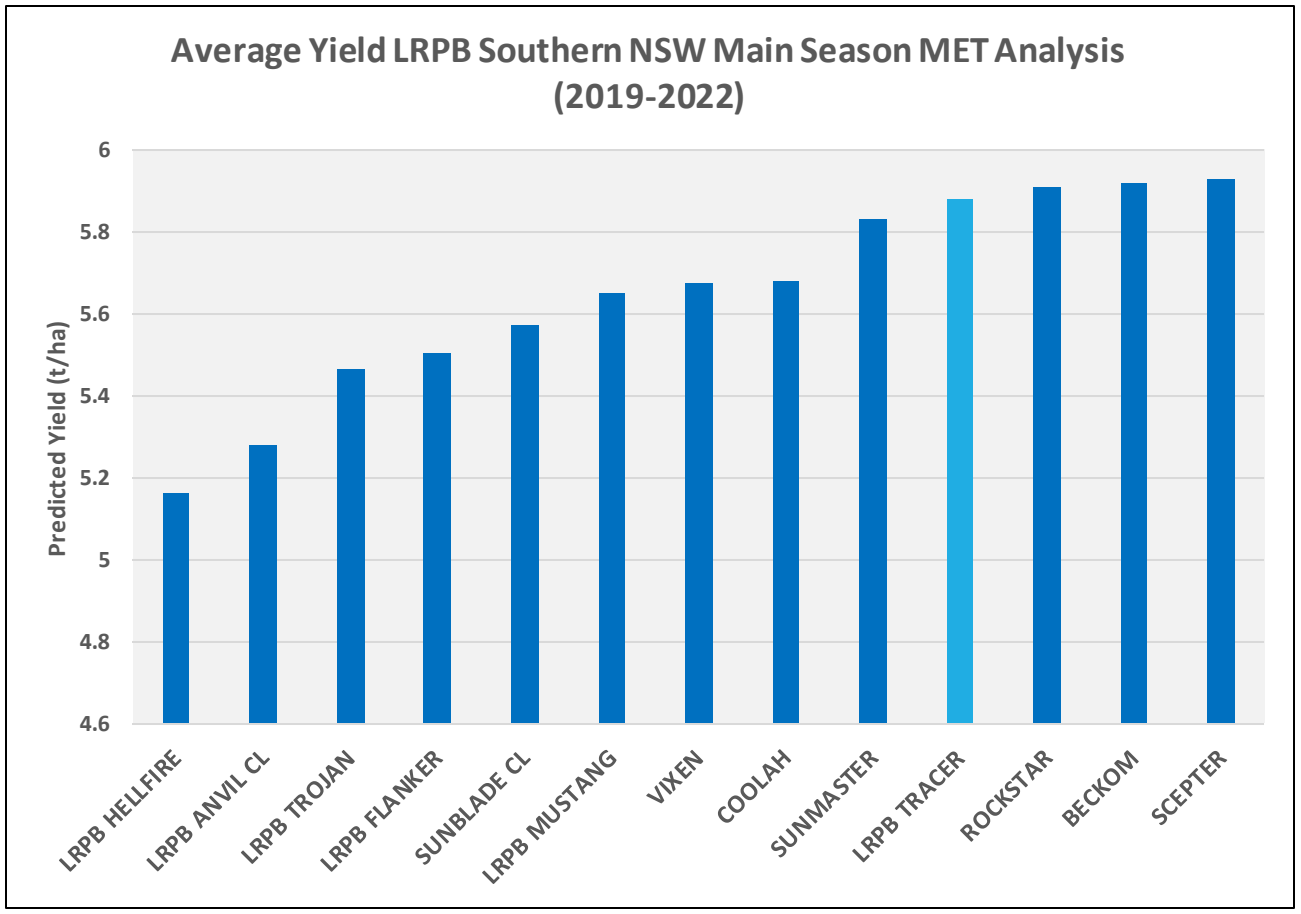
LRPB Nth NSW/QLD Main Season MET Analysis (2019-2022)						
Variety	**Maturity**	**2019**	**2020**	**2021**	**2022**	**All Trials**
BECKOM	Quick - Mid	110.9%	108.9%	95.8%	107.0%	104.3%
COOLAH	Mid - Slow	91.7%	106.6%	106.8%	91.3%	100.9%
LRPB TRACER	**Mid**	**107.1%**	**104.9%**	**115.1%**	**111.4%**	**110.3%**
LRPB FLANKER	Mid	84.0%	98.5%	84.9%	87.0%	89.8%
LRPB HELLFIRE	Quick - Mid	108.5%	99.5%	89.9%	93.4%	94.9%
LRPB LINCOLN	Quick	94.9%	94.7%	82.8%	88.9%	89.1%
LRPB MUSTANG	Quick	110.8%	106.6%	101.4%	98.4%	102.4%
LRPB RELIANT	Mid	103.0%	103.0%	85.3%	96.3%	95.3%
LRPB SPITFIRE	Quick	105.2%	88.9%	87.0%	89.3%	89.1%
SUNBLADE*	Mid	108.7%	104.6%	109.0%	110.1%	107.9%
SUNMASTER*	Mid	117.6%	108.0%	115.5%	114.5%	112.9%
SUNTOP	Quick - Mid	107.6%	101.0%	97.6%	99.9%	99.8%
Mean Predicted Yield (t/ha)		**3.05**	**3.93**	**4.62**	**5.04**	**4.41**
Trials in Analysis		**2**	**12**	**10**	**10**	**34**

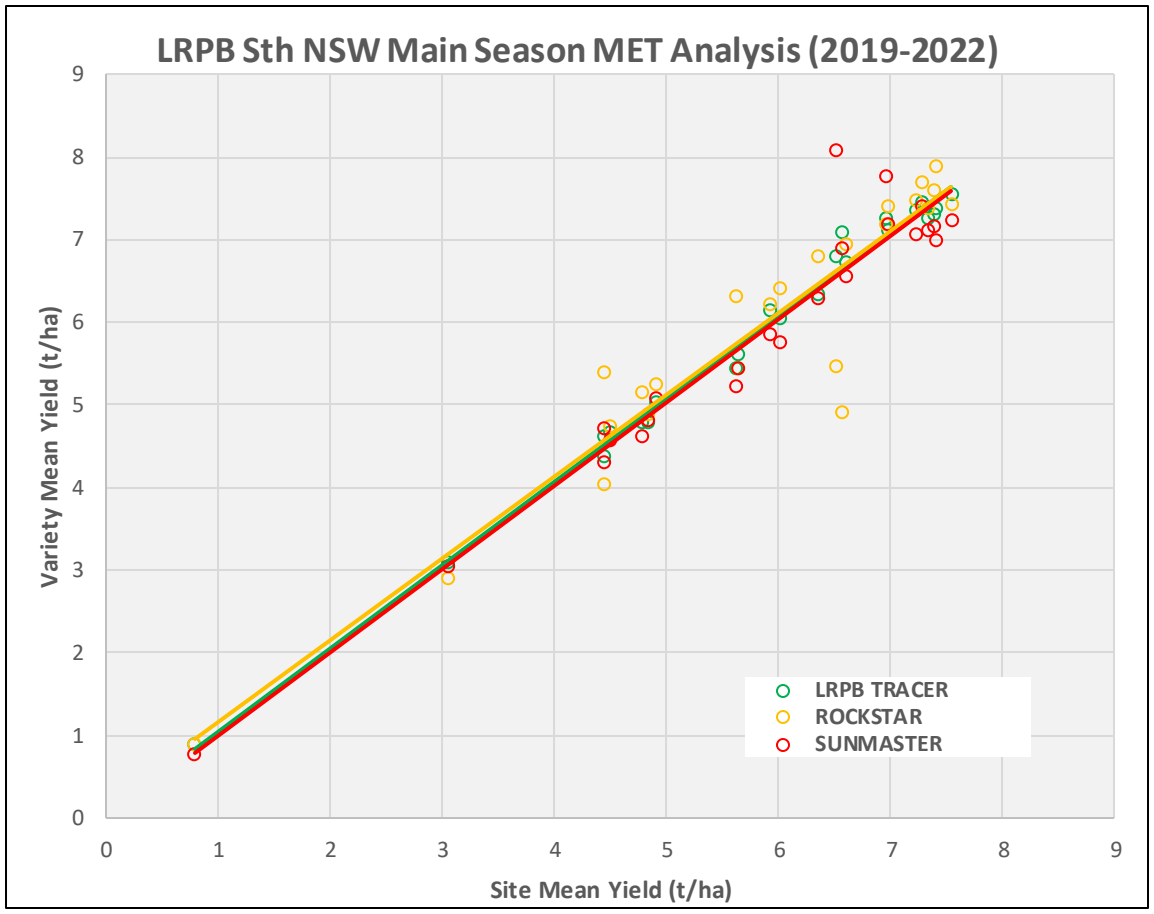
* Indicates Variety has only appeared in trials since 2021. 2019 and 2020 yields are predicted

LongReach PLANT BREEDERS

Pacific Seeds
Growing possibilities

LRPB Southern NSW Main Season MET Analysis (2019-2022)
Yield Regression





LRPB Tracer has shown higher average yields across Sth NSW than competitor APH varieties.

Note – Sunmaster & Sunblade first appeared in LRPB trials in 2021. As a result most yield data below 3 t/ha is predicted yield data

LongReach PLANT BREEDERS

Pacific Seeds
Growing possibilities

LRPB Southern NSW Main Season MET Analysis (2019-2022)
Trial Cluster Analysis

LRPB Southern NSW Main Season Trials MET Analysis 2019-2022							
Variety	Maturity	C1 - High Septoria. High Fungicide Use Trials	C2- Low Protein 2022 Trials	C3- No Abiotic Constraint, Low Disease Trials	C4- Red Dirt. Hostile B Horizon. Low Disease Trials	Griffith 2019 Trial Long Fallow Acid Layer	All Trials
SCEPTER	Quick Mid	103.2%	99.2%	106.2%	107.3%	111.4%	104.7%
BECKOM	Quick Mid	99.3%	107.7%	107.1%	102.2%	104.7%	104.5%
ROCKSTAR	Mid	83.3%	101.9%	111.0%	109.0%	95.9%	104.3%
LRPB TRACER	**Mid**	**107.0%**	**101.2%**	**102.9%**	**105.2%**	**102.2%**	**103.8%**
SUNMASTER*	Mid	114.0%	98.9%	99.8%	104.3%	100.6%	103.0%
COOLAH	Mid Slow	101.8%	97.9%	101.3%	101.5%	85.9%	100.3%
VIXEN	Quick	72.1%	95.4%	106.2%	107.8%	119.2%	100.2%
LRPB MUSTANG	Quick	102.5%	93.2%	98.4%	103.6%	109.9%	99.8%
LRPB FLANKER	Mid	100.4%	101.9%	95.9%	94.5%	85.0%	97.1%
LRPB TROJAN	Mid	90.2%	87.8%	104.5%	98.7%	97.5%	96.5%
LRPB HELLFIRE	Quick Mid	98.8%	86.6%	90.4%	92.3%	86.0%	91.1%
Site Mean Yield (t/ha)		**5.76**	**6.43**	**5.13**	**5.95**	**3.02**	**5.67**
Trials in Analysis		**3**	**5**	**7**	**8**	**1**	**24**
* Indicate varieties that have only been included in LRPB trials for 2 Years or less and so have a relatively high degree of prediction							

LongReach PLANT BREEDERS

Pacific Seeds
Growing possibilities

LRPB Southern NSW Main Season MET Analysis (2019-2022)
Trial Year Analysis

LRPB Sth NSW Main Season MET Analysis (2019-2022)						
Variety	**Maturity**	**2019**	**2020**	**2021**	**2022**	**All Trials**
BECKOM	Quick - Mid	110%	103%	106%	103%	105%
COOLAH	Mid - Slow	90%	99%	103%	99%	100%
LRPB TRACER	**Mid**	**107%**	**105%**	**104%**	**102%**	**104%**
LRPB FLANKER	Mid	85%	92%	97%	103%	97%
LRPB HELLFIRE	Quick - Mid	78%	91%	93%	90%	91%
LRPB MUSTANG	Quick	116%	104%	99%	95%	100%
ROCKSTAR	Mid	101%	109%	106%	98%	104%
SCEPTER	Quick - Mid	121%	107%	106%	99%	105%
SUNMASTER*	Mid	102%	103%	103%	104%	103%
VIXEN	Quick	130%	108%	100%	90%	100%
Site Mean Yield (t/ha)		**1.87**	**5.69**	**6.18**	**6.14**	**5.67**
Trials in Analysis		**2**	**7**	**8**	**7**	**24**

* Indicates varieties only included in LRPB trials since 2021. 2019 and 2020 yields are predicted

LongReach PLANT BREEDERS

Pacific Seeds
Growing possibilities

Disease

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Pacific Seeds
Growing possibilities

Disease

Variety	Stem Rust	Leaf Rust	Stripe Rust		Yellow Spot	Septoria tritici	Crown Rot	Prat. thornei		Powdery Mildew
			West	East				Res.	Tol.	
Beckom	MRMS	MSS	MR	MRMS	MSS	S	S	MSS	TMT	S
Boree	MR	S	MR	SVS	MRMS	SVS	S	MSS	MII	SVS
Calibre	MR	S	RMR	S	MRMS	S	S	MSS	MI	S
Catapult	MR	S	RMR	S	MRMS	MSS	MSS	MS	MT	S
Coolah	MR	RMR	RMR	MSS	MSS	MSS	MSS	MS	MT	S
Coota	RMR	MR	MR	S	MSS	S	MSS	MS	MTMI	S
LRPB Tracer	***MRp**	***MSSp**	***MRp**	***MRMSp**	***Sp**	***Sp**	***MSSp**	**-**	***TMTp**	***MRMSp**
LRPB Flanker	MR	RMR#	RMR	MRMS	MSS	MSS	MSS	MSS	MT	MRp
LRPB Hellfire	MR	MSS	RMR	MRMS	MSS	S	MSS	MSS	MI	SVS
LRPB Kittyhawk	MRMS(S)	MR	RMR	MR	MRMS	MRMS	SVS	S	I	MS
LRPB Lancer	R	RMR	RMR	RMR	MS	MS	MSS	MS	TMT	R
LRPB Mustang	MRMS	MSS	RMR	MR	MSS	S	MSS	MSS	MTMI	MSS
LRPB Nighthawk	RMR	MSS	RMR	MRMS	MS	MS	MSS	MS	MI	SVS
LRPB Raider	RMR	RMR	RMR	MR	MSS	S	S	MS	MT	MSS
LRPB Spitfire	MR	S	MR	MR(S)	S	S	MS	MS	MTMI	MR
LRPB Stealth	R	RMR#	RMR	RMR	MS	MSS	*MS	S	MTMI	MRMS
LRPB Trojan	MRMS	MR#	MR	S	MSS	S	MS	MSS	MI	S
RockStar	MRMS	S	RMR	S	MRMS	S	S	MS	MI	SVS
Scepter	MRMS	MSS	RMR	MSS	MRMS	S	MSS	MSS	MT	SVS
Sunflex	MR	RMR/S	RMR	MRMS	MS	SVS	MSS	MSS	MI	S
Sunmaster	MS	RMR#	MR	MRMS	MSS	S	S	MS	TMT	SVS
Sunmax	MRMS	MS	RMR	RMR	MSS	MSS	MSS	MS	MI	S
Suntop	MRMS	MR	MR	MRMS	MSS	MSS	MSS	MRMS	TMT	S
Vixen	MRMS	SVS	MRMS	SVS	MRMS	S	S	MS	I	SVS

Data Sourced from nvt.grdc.com.au and LRPB internal disease database March 2023. * Indicates Breeder Rating, p= provisional rating, # or () indicates may be more susceptible to alternate pathotypes

GRDC NATIONAL VARIETY TRIALS™

LongReach PLANT BREEDERS

Pacific Seeds Growing possibilities

Grain Quality

LongReach PLANT BREEDERS

Pacific Seeds
Growing possibilities

LRPB Nth NSW/QLD Main Season Trials 2022

Variety	Protein			Hectolitre Weight			Screenings			1000 grain weight		
	Average	Max	Min	Average	Max	Min	Average	Max	Min	Average	Max	Min
BECKOM	11.3	11.7	10.9	80.6	81.9	79.2	1.5	2.6	0.3	33.0	36.5	29.4
COOLAH	11.1	11.3	10.9	81.9	83.1	80.7	0.6	0.7	0.4	40.7	45.7	35.6
JANZ	11.1	11.7	10.4	79.7	82.5	76.9	3.0	4.7	1.2	33.9	38.9	28.8
LRPB TRACER	**11.8**	**12.2**	**11.4**	**82.0**	**82.2**	**81.8**	**0.4**	**0.7**	**0.1**	**38.1**	**40.3**	**35.8**
LRPB FLANKER	11.7	11.9	11.4	82.8	83.9	81.7	0.4	0.6	0.2	42.6	46.6	38.6
LRPB HELLFIRE	13.2	13.3	13.1	83.2	83.4	82.9	0.3	0.3	0.3	45.4	48.2	42.5
LRPB LINCOLN	10.6	11.0	10.2	82.2	82.2	82.2	0.9	1.4	0.3	42.2	45.1	39.2
LRPB MUSTANG	10.9	10.9	10.8	81.4	82.2	80.6	0.7	0.9	0.4	40.3	43.9	36.6
LRPB RELIANT	11.6	11.7	11.4	83.3	84.8	81.7	0.7	1.0	0.3	42.6	46.3	38.9
SUNBLADE CL	10.5	10.5	10.5	82.7	82.7	82.6	0.5	0.8	0.2	44.0	46.7	41.2
SUNGUARD	11.4	11.4	11.3	81.7	83.0	80.4	0.6	0.9	0.3	36.7	39.6	33.8
SUNMASTER	10.9	11.2	10.6	83.9	84.2	83.6	0.6	0.9	0.2	42.2	44.9	39.5
SUNTOP	10.7	10.7	10.7	82.5	82.7	82.2	1.0	1.3	0.7	41.4	42.9	39.9

LongReach PLANT BREEDERS

Pacific Seeds
Growing possibilities

LRPB Southern NSW Main Season Trials 2022

Variety	Protein			Hectolitre Weight			Screenings			1000 grain weight		
	Average	Max	Min	Average	Max	Min	Average	Max	Min	Average	Max	Min
BECKOM	11.2	11.4	10.9	82.6	82.8	82.3	1.8	2.9	0.7	34.8	37.2	32.3
BOREE	13.0	15.0	10.9	79.6	83.0	76.2	3.4	6.3	0.5	39.0	47.7	30.2
COOLAH	11.9	13.2	10.5	81.3	83.8	78.7	1.3	1.7	0.8	38.0	42.8	33.2
LRPB TRACER	**12.1**	**12.7**	**11.5**	**81.2**	**82.1**	**80.2**	**1.4**	**2.4**	**0.3**	**36.9**	**40.2**	**33.5**
LRPB HELLFIRE	13.1	13.4	12.7	83.9	84.0	83.8	1.3	2.1	0.4	44.1	48.4	39.8
LRPB MUSTANG	12.3	13.5	11.1	79.5	80.0	79.0	2.6	4.3	0.8	37.1	41.8	32.3
ROCKSTAR	12.3	13.5	11.1	80.9	83.2	78.5	1.6	2.5	0.6	44.0	51.9	36.0
SCEPTER	11.8	12.8	10.7	83.0	83.1	82.9	0.9	1.4	0.4	46.5	50.5	42.5
SUNBLADE CL	11.2	11.2	11.1	83.5	84.0	83.0	2.0	2.8	1.1	41.4	43.9	38.9
SUNMASTER	11.1	11.4	10.8	82.8	84.9	80.6	1.0	1.5	0.5	40.4	42.0	38.8
VIXEN	13.1	15.5	10.6	77.8	80.2	75.3	3.2	5.9	0.4	37.0	44.6	29.4

LongReach PLANT BREEDERS

Pacific Seeds
Growing possibilities

LRPB Tracer – Mid Maturity APH

LRPB Tracer is available for sowing in 2024 through our Seed Associate Network

Pacific Seeds
Growing possibilities