



LongReach Spitfire



KEY FEATURES

- ▶ A high yielding variety with early mid maturity, similar to Ventura
- ▶ Australian Prime Hard (APH) classification in southern and central NSW
- ▶ Crown Rot Resistance (MS)
- ▶ Market leading grain package with large grain size, low screenings and high protein accumulation
- ▶ Long Coleoptiles with strong early seedling vigour
- ▶ Good level of resistance (MR) to Stripe rust based on Adult Plant Resistance
- ▶ Excellent Yield potential under extreme Root Lesion Nematode (MT)



BREEDING

Pedigree: Drysdale/Kukri

Spitfire (LPB05-2148) was bred by LongReach Plant Breeders, and has been extensively evaluated by the LongReach Plant Breeders technical team led by Dr Bertus Jacobs. The line was first entered into National Variety Trials in 2008.

MATURITY

Spitfire is suited to main season planting with early to mid season maturity similar to Ventura and Livingston

OPTIMUM PLANTING TIMES AND REGIONS – TABLE I

Spitfire is suited to a main season planting window with an early to mid season maturity.

TABLE I. SPITFIRE OPTIMUM PLANTING TIMES

Region	Planting Times by Weeks															
	April				May				June				July			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
NSW:																
South West Slopes					E	E	O	O	O	O	O	L				
South West Plains					E	O	O	O	O	O	O	L				

NOTES: E= Earlier than ideal but acceptable O= Optimum planting time L= Later than ideal, but acceptable

GRAIN QUALITY

Spitfire has an APH classification in central and southern NSW

Spitfire has large grain size, similar to Ellison, larger than Ventura and Livingston

Spitfire has excellent test weight – one of the varieties with the highest test weight assessed in 2008 & 2009 NVT trials

Spitfire has consistent high grain protein, showing an average of >1% above the site average in the 2008 & 2009 NSW NVT Trials





Spitfire Grain Receival Quality South East NSW - NVT 2009

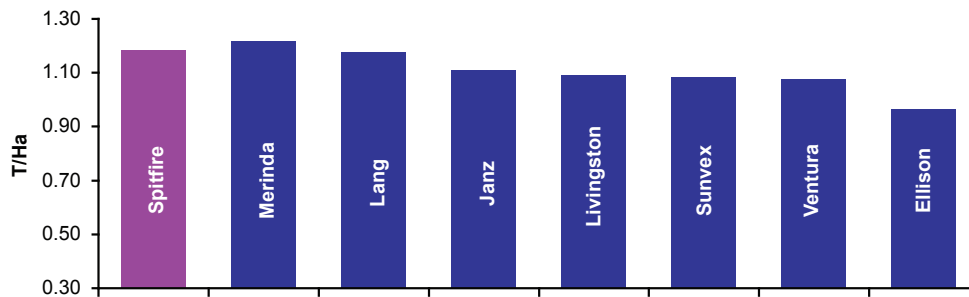
Variety	Trial No.	Test Weight (kg/ hectolitre)			Grain Protein %			Screenings % (2.0mm sieve)		
		Ave	Min	Max	Ave	Min	Max	Ave	Min	Max
Carinya	5	79.9	77.8	83.5	15.3	13.9	17.0	7.3	1.4	12.5
Ellison	5	78.8	74.5	83.9	17.2	15.2	18.6	9.4	1.8	19.8
Janz	5	79.6	75.5	84.3	15.6	14.6	17.0	11.3	2.0	21.2
Kennedy	5	77.4	73.8	81.9	15.6	13.4	16.5	6.1	1.7	9.9
Lang	5	79.9	76.7	84.6	16.4	14.6	18.2	14.7	1.9	27.4
Livingston	5	79.4	75.7	82.8	15.3	14.2	16.3	6.5	3.2	10.8
Merinda	5	80.4	77.9	83.8	15.0	13.7	15.8	11.6	1.9	17.7
Spitfire	5	80.6	78.3	84.5	17.0	15.0	18.5	5.1	1.2	9.9
Sunvex	5	81.2	78.9	83.8	16.2	14.5	17.5	5.4	1.1	11.1
Ventura	5	79.0	74.9	83.1	15.6	13.9	16.4	8.4	2.4	14.3
Average		78.5	74.9	83.1	15.6	14.3	16.6	9.2	2.3	14.7

Spitfire Grain Receival Quality South West NSW - NVT 2009

Variety	Trial No.	Test Weight (kg/ hectolitre)			Grain Protein %			Screenings % (2.0mm sieve)		
		Ave	Min	Max	Ave	Min	Max	Ave	Min	Max
Carinya	3	80.5	78.7	83.8	13.2	11.7	15.1	4.5	2.2	8.2
Ellison	3	79.7	77.8	83.4	14.9	12.8	16.9	3.8	2.6	4.5
Janz	3	79.6	76.6	84.7	13.5	12.4	15.5	6.5	2.5	13.4
Kennedy	3	77.9	75.4	82.6	13.2	12.1	14.7	3.7	2.3	6.2
Lang	3	80.3	77.7	84.4	14.0	12.9	15.6	5.5	2.6	11.1
Livingston	3	78.9	75.7	83.7	13.8	11.9	15.4	4.8	2.3	8.8
Merinda	3	79.9	77.7	84.1	13.0	11.5	14.9	9.6	3.6	20.1
Spitfire	3	80.1	75.9	85.5	14.8	12.5	16.6	2.8	1.4	5.5
Sunvex	3	81.0	78.3	85.0	14.6	13.3	16.1	3.2	1.4	6.1
Ventura	3	78.9	76.2	83.8	13.0	11.1	14.8	7.2	2.8	14.9
Average		79.1	76.5	83.7	13.3	11.6	15.2	5.8	3.3	10.6

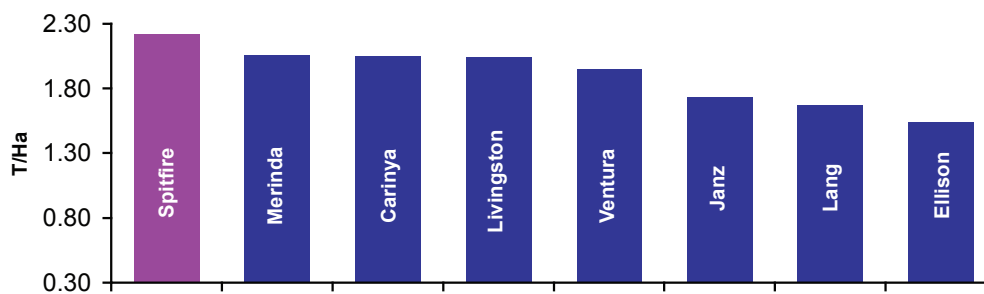
YIELD PERFORMANCE – SOUTHERN NSW

Spitfire versus commercial varieties South West NSW



Data sourced from 2009 Main Season NVT Trials - sites include Beckom, Lockhart & Oaklands.

Spitfire versus commercial varieties South East NSW



Data sourced from Main Season NVT Trials 2009 - sites include Canowindra, Galong, Gerogery, Quandiella & Matong





AGRONOMIC FEATURES

Spitfire is suited to main season planting with early to mid season maturity similar to Ventura and Livingston

Appears well suited to Acid Soils, with good yield performance in low pH soils

Has long coleoptiles with excellent seedling vigour

Medium plant height at maturity, fully awned, white chaffed and has white grain

Spitfire is rated (MS) for lodging

DISEASE PROFILE - TABLE 2

Table 2. Disease and Pest Resistance Ratings: Spitfire and commercial varieties.

Variety	Disease Ratings								Pest Reactions
	Stem Rust	Leaf Rust	Stripe Rust		Crown Rot	Common Root Rot	Septoria tritici	Yellow Spot	Root Lesion Nematodes
	Res	Res	Jackie pt	WA + Yr17 pt	Res	Res	Res	Res	Pratylenchus thornei (Pthornei) Tolerance
Carinya	R-MR	MR-MS	R	MR-MS	MS-S	MS-S	MR-MS	S	-
Crusader	R-MR	R	R	MR-MS	MS	MS	MS-S	MR	MT-MI
Ellison	R-MR	R	R	MR-MS	S	MS-S	MS-S	R-MR	MI-I
Janz	R-MR	MS	MS	MS	MS-S	MR-MS	MR-MS	S	MI-I
Lang	R	MS	MS	MS	MS	MR	MR-MS	MS	MI
Livingston	MR	R-MR	R	R-MR	MS-S	S-VS	S-VS	MS-S	MT
Merinda	R-MR	R	R-MR	R-MR	MS-S	-	S	S	MT
Spitfire	R-MR	MS	MR	MR	MS	MS	MS-S*	MS-S*	MT
Sunco	R	MS	MR-MS	MR-MS	MR-MS	MR	S	MS-S	MI-I
Sunstate	MR	R-MR	R	MS	MS-S	MR	S	MS-S	MT
Sunvale	R	MR-MS	R	MR	MS	MR-MS	MS	MS-S	MT
Ventura	R-MR	R-MR	R	MS	MS	MR	MS-S	MS-S	MT-MI

Notes: Resistance: R = Resistant, MR = Moderately Resistant, MS = Moderately Susceptible, S = Susceptible, VS = Very Susceptible

Tolerance: T = Tolerant, MT = Moderately Tolerant, MI = Moderately Intolerant, I = Intolerant, VI = Very Intolerant

* = Preliminary Data. Data Provided by NSW DPI 2010, and LongReach Plant Breeders 2009.





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END POINT ROYALTY (EPR)

Each time a grower purchases seed of Spitfire, the grower agrees to comply with the Variety Licence and Royalty Agreement, including agreement to pay the EPR of \$3.85 per tonne (GST inclusive). EPR is payable on all grain production, except on seed retained by the grower for replanting by the grower. The majority of the EPR will be paid by Pacific Seeds to the Breeder (LongReach Plant Breeders) for investment in future wheat breeding programs.

SEED AVAILABILITY

Good stocks of Spitfire are available. Please contact one of the following Pacific Seeds Associates or your local seed supplier to place an order.

NEW SOUTH WALES

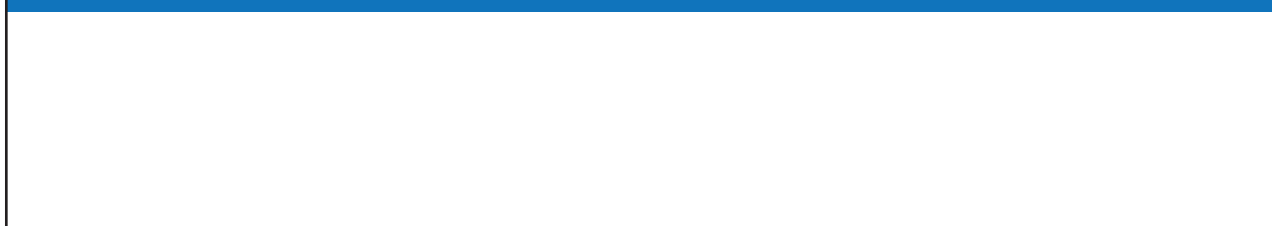
Agrigrain Narromine, NSW Ph: 02 6889 2200	Auswest Seeds Forbes, NSW Ph: 02 6852 1500	Hart Bros. Seeds Junee, NSW Ph: 02 6924 7206	Superior Seed Co Deniliquin NSW Ph: 03 5881 6689	Grainland Moree, NSW Ph: 02 6752 1511
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ACKNOWLEDGEMENTS Spitfire was developed with the assistance of numerous independent professional contract service providers and public agency researchers. The support of farmer co-operators in all parts of the Australian wheat belt who have provided trial sites since 2003 is also acknowledged.

For other sales enquiries, please contact Pacific Seeds Distribution centre on 07 4690 2701.

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