

Tested as  
LPB16-6150

# LRPB Avenger

## A Battle Ready Quick Spring

### APW(N)

### WA

WHEAT

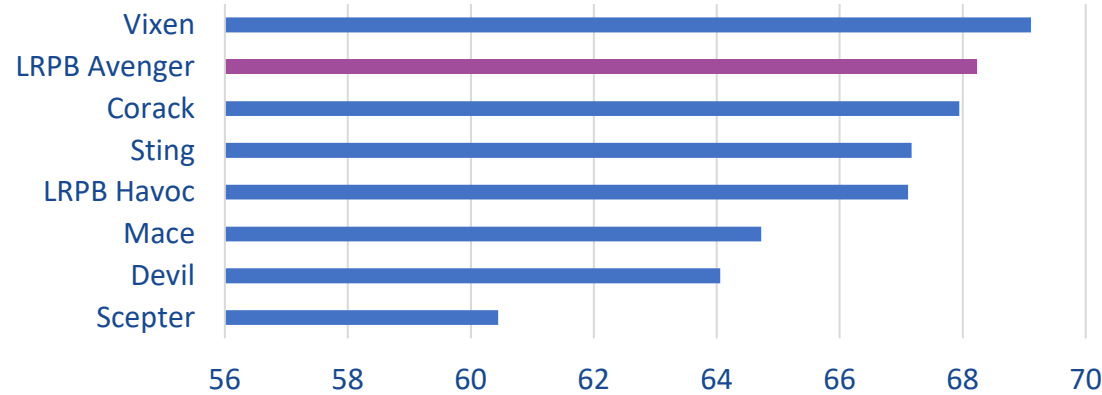
# LRPB Avenger – Tough & Reliable

- Derived from a Corack/Mace cross, with better yields than both parents, while retaining the tough grain package of Corack and broad WA adaption of Mace
- A quick spring maturity ideally suited to a Mid-May to Early-June planting window
- Ideally suited to the on farm battle grounds of WA, with a yield sweet-spot of 0.5-2.5 t/ha environments, where it out-yields Scepter and Mace
- APW(N) classification will allow for potential premium pricing benefit and dual stacking
- Avenger is able to hold up to the hard quick finishes, with an excellent physical grain receivals package, which will not let growers down
- A Medium-Long coleoptile, comparable with Magenta and Yitpi, opens opportunities
- Has an excellent abiotic stress tolerance package to both Aluminium toxicity and Boron
- Acceptable disease package like other main/quick main varieties in WA
- Best suited to the real marginal yielding areas of the far north, parts of the central wheat belt and down through the eastern corridor of Western Australia

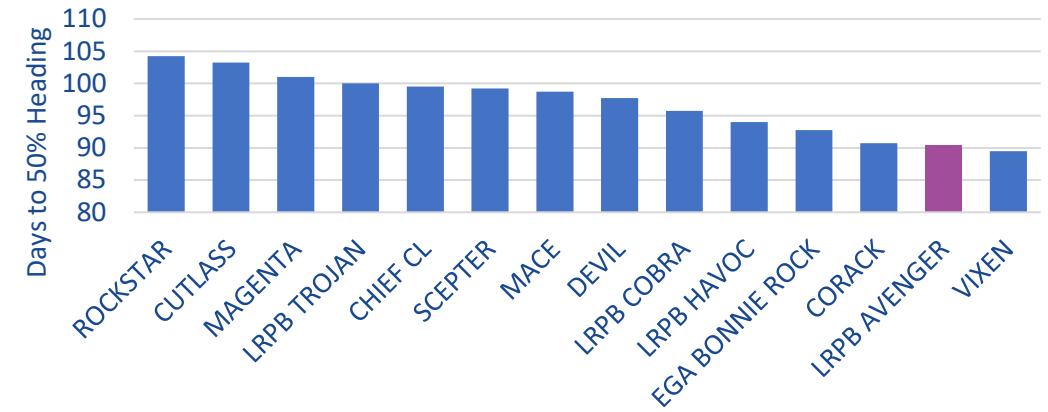
(Targeted areas of Agzones 2, 3, 4 & 5)

# LRPB Avenger – A Quick Spring Wheat

2020 NVT Zadocks (6 Sites)



LRPB Phenology trial data of average days to 50% Heading



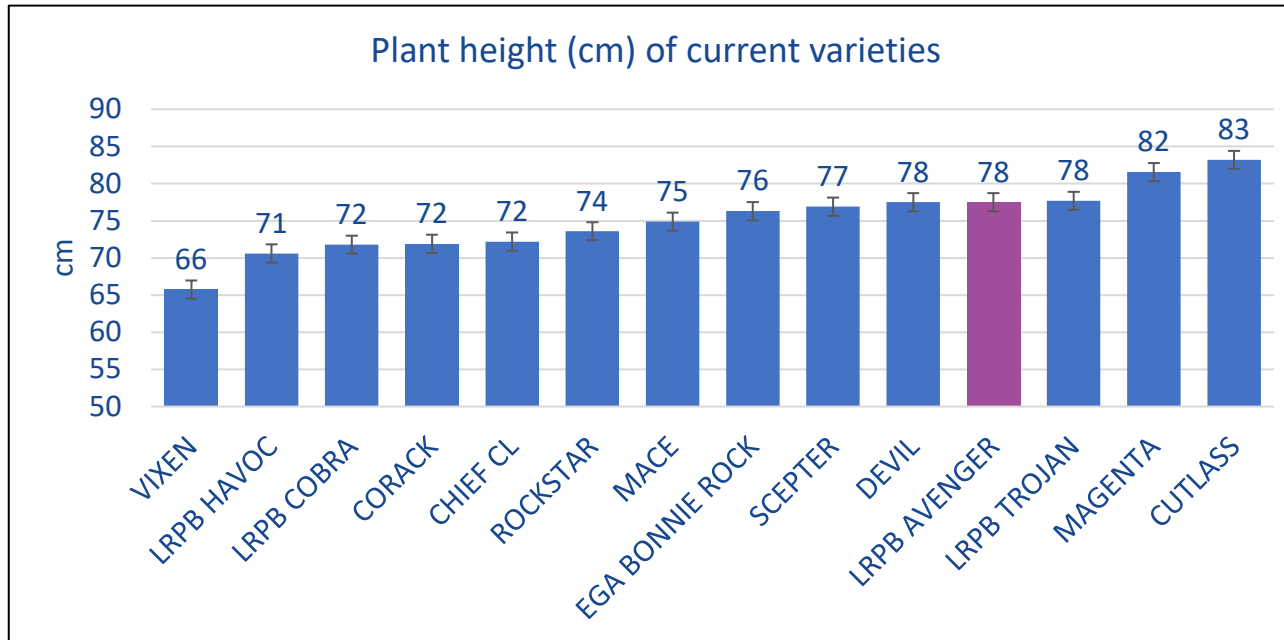
- A Quick Spring wheat, like Corack and Vixen
- Late May to Mid June sowing
- Fast through grain fill



Maturity Type	Maturity Class	Quick Wheat Boundary	Slow Wheat Boundary
1	Very Quick Spring	N/A	Axe
2	Very Quick – Quick Spring	>Axe	Vixen
3	Quick Spring	>Vixen	Corack/Mustang
4	Quick – Mid Spring	>Corack/Mustang	Mace/Suntop
5	Mid Spring	>Mace/Suntop	Reliant/Sheriff/Trojan
6	Mid – Slow Spring	>Reliant/Sheriff/Trojan	Yitpi/Gregory
7	Slow Spring	>Yitpi/Gregory	Sunzell/DSPascal
8	Slow – Very Slow Spring	>Sunzell/DSPascal	Sunmax
9	Very Slow Spring	>Sunmax	N/A
1W	Quick winter	N/A	Illabo
2W	Mid winter	>Illabo	Accroc
3W	Slow winter	>Accroc	N/A



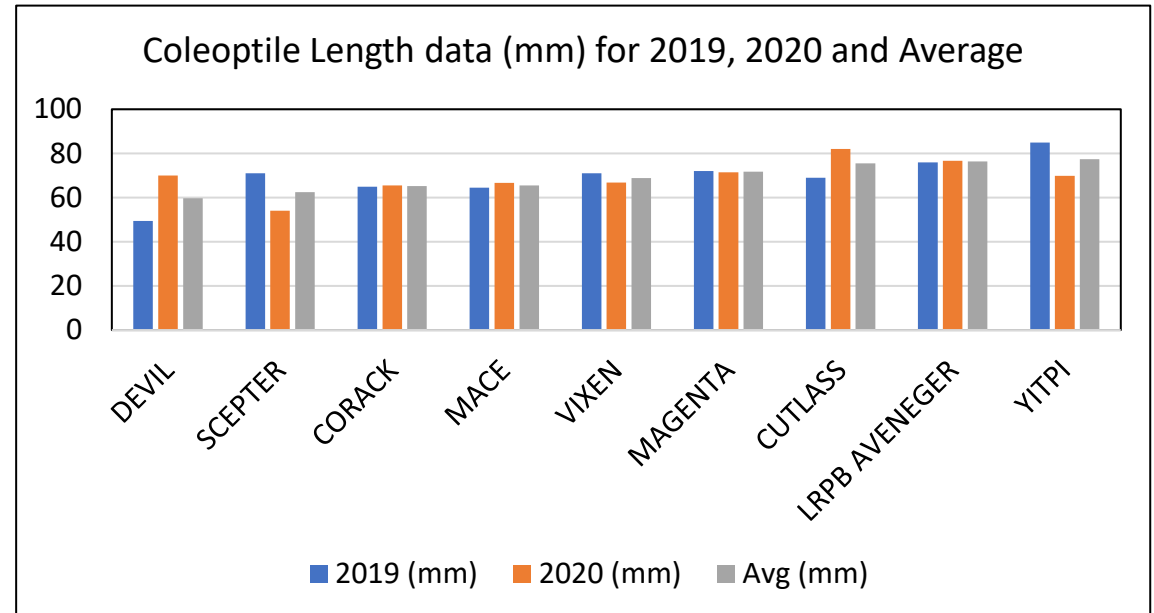
# LRPB Avenger – Agronomy



- Average plant height of 78 cm is similar to other current mains
- A robust and bold plant type
- A Medium-long coleoptile length which can offer deeper sowing opportunities, better emergence from unwanted furrow fill after wind blow events and potentially improved emergence and establishment on non-wetting soils

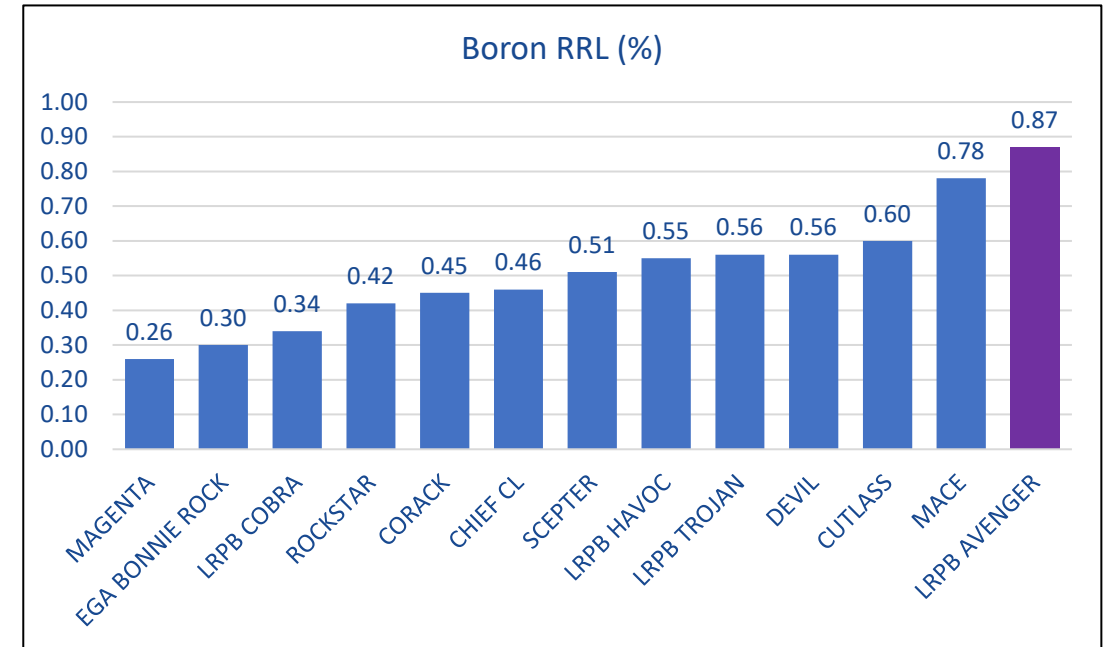
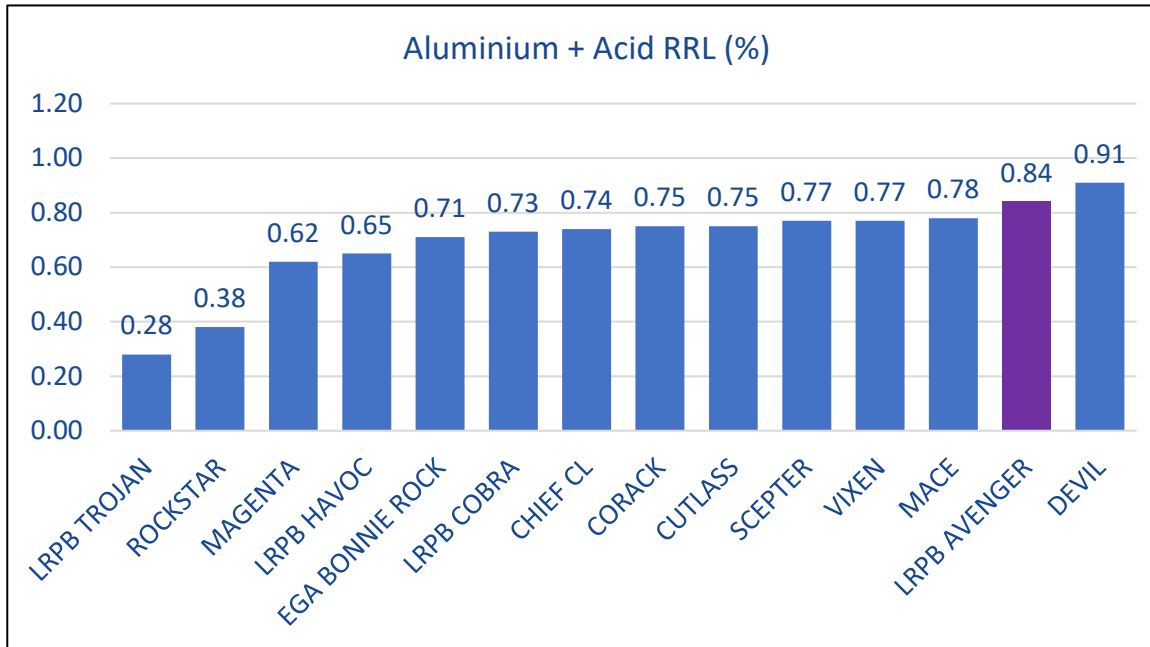
# LRPB Avenger – Longer Coleoptile unpacked

	LRPB Coleoptile Length data		
Variety Name	2019 (mm)	2020 (mm)	avg (mm)
<b>LRPB AVENGER</b>	<b>76</b>	<b>77</b>	<b>77</b>
CUTLASS	69	82	76
DEVIL	50	70	60
MACE	65	67	66
SCEPTER	71	54	63
VIXEN	71	67	69
MAGENTA	72	71	72
YITPI	85	70	77



- LRPB Avenger has an identifiable Medium-long coleoptile observed during hydroponic lab based experiments which were replicated and statically analysed
- Over two years the data shows Avenger consistently has a longer coleoptile than other main varieties
- A Coleoptile length similar to older more popular “longer-CP” varieties like Magenta and Yitpi
- Has been planted in series of deep sown trials for the 2021 season to test benefits

# LRPB Avenger – Abiotic Stress Screenings 2020



RRL (%) = % Relative Root Length compared to untreated control

Note – This Data presented is a percentage change in measured root length under hydroponic conditions. The Percentage Relative Root Length (% RRL) is an indication of a varieties' ability to grow in adverse abiotic growing conditions. The rating is based on a comparison with the untreated control of the same genotype and is not an indication of its yield performance. The RRL% may be used as a guide to compare a variety's relative tolerance to adverse abiotic growing conditions that might be experienced.

# LRPB Avenger – Disease Profile

Variety	Leaf Rust	Stem Rust	Stripe Rust YrWA	Powdery Mildew	Yellow Spot	Septoria tritici WA	CCN	Crown Rot	Black Point	Nodorum blotch-Leaf	Nodorum blotch-Glume
Corack	SVS	MR	MS	SVS	MRMS	S	RMR	S	S	MSS	MRMS
Devil	SVS	MS	MR	SVS	MRMS	S	MSS	MSS	MSS	MRMS	MRMS
LRPB Avenger	S	MS	MRMS	S	MS	S	MSS	Sp	MS	MSS	MRMS
LRPB Havoc	S	S	MR	MS	MRMS	MRMS	S	MSS	MS	MS	MRMS
Mace	MSS	MRMS	RMR	MSS	MRMS	S	MRMS	S	MRMS	MS	MRMS
Scepter	MSS	MRMS	MR	S	MRMS	S	MRMS	MSS	MS	-	MS
Sting	SVS	MRMS	MR	S	MRMS	S	MS	Sp	Sp	MSS	MRMS
Vixen	SVS	MRMS	MRMS	S	MRMS	MSS	MSS	S	MSS	MSS	MS

Resistance rating; VS=Very Susceptible, S=Susceptible, MS=Moderately Susceptible, MR=Moderately Resistant.

Data sourced via NVT ([www.nvtonline.com.au](http://www.nvtonline.com.au)) February 2020.

p = Preliminary Data Based on limited data set



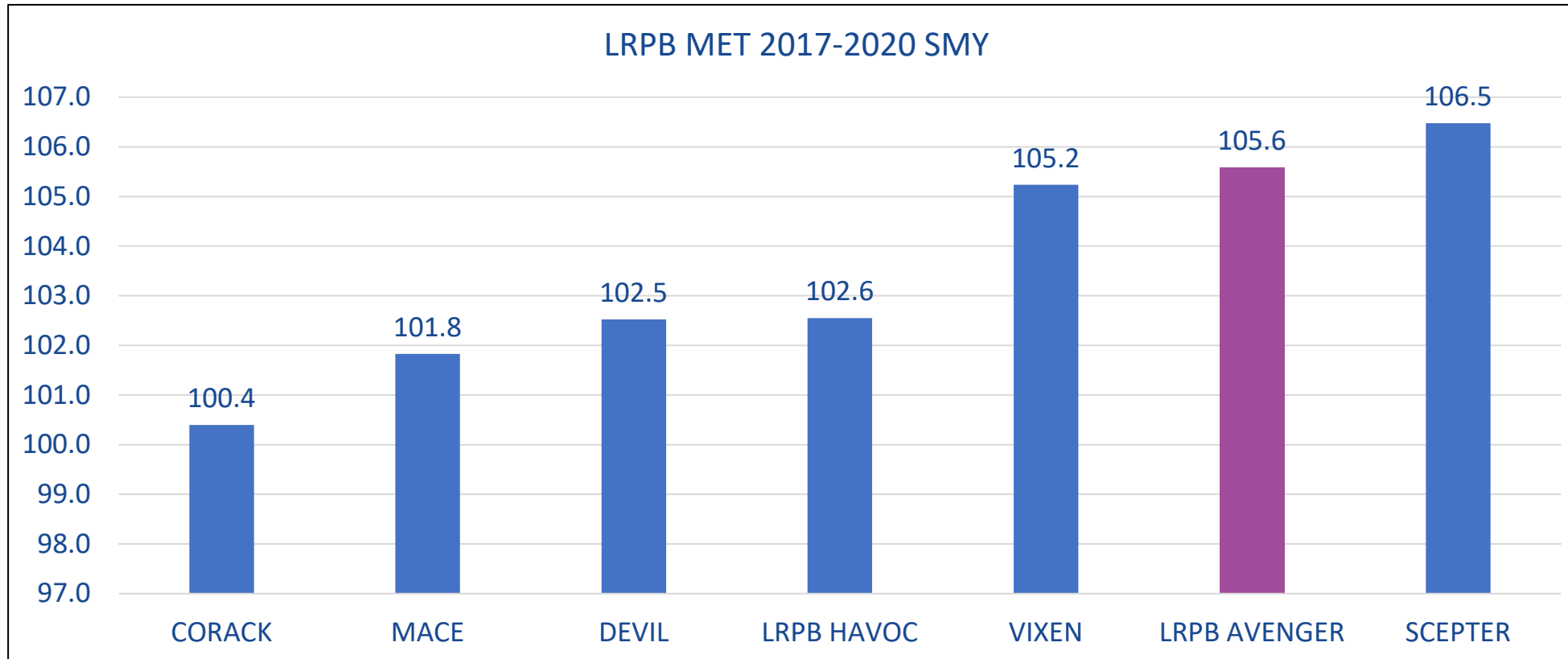
# LRPB Avenger – Yield Analysis

Avenger averaged 5.8 t/ha on Kevin Davies Farm just outside York in 2020 during bulk-up





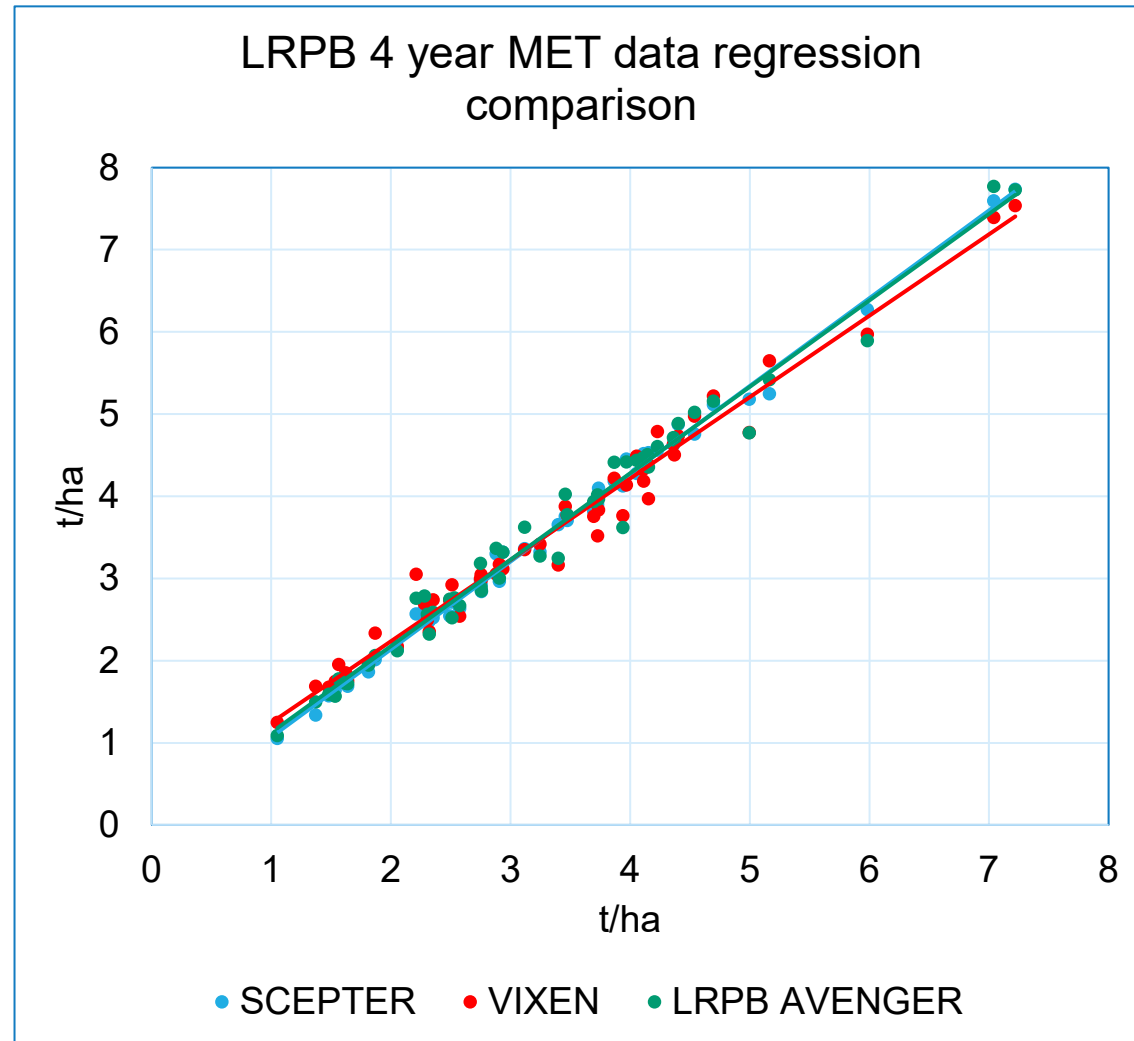
# LRPB Yield Data – 4 Year MET Summary



- LRPB Avenger yields are equal or similar to Vixen based on four years of replicated yield trials
- Highly competitive with Vixen and Scepter across the four year MET
- Out Yielding Mace by 3.5%
- Out Yielding Havoc by 3%

# LRPB Yield Data – 4 Year MET Regression

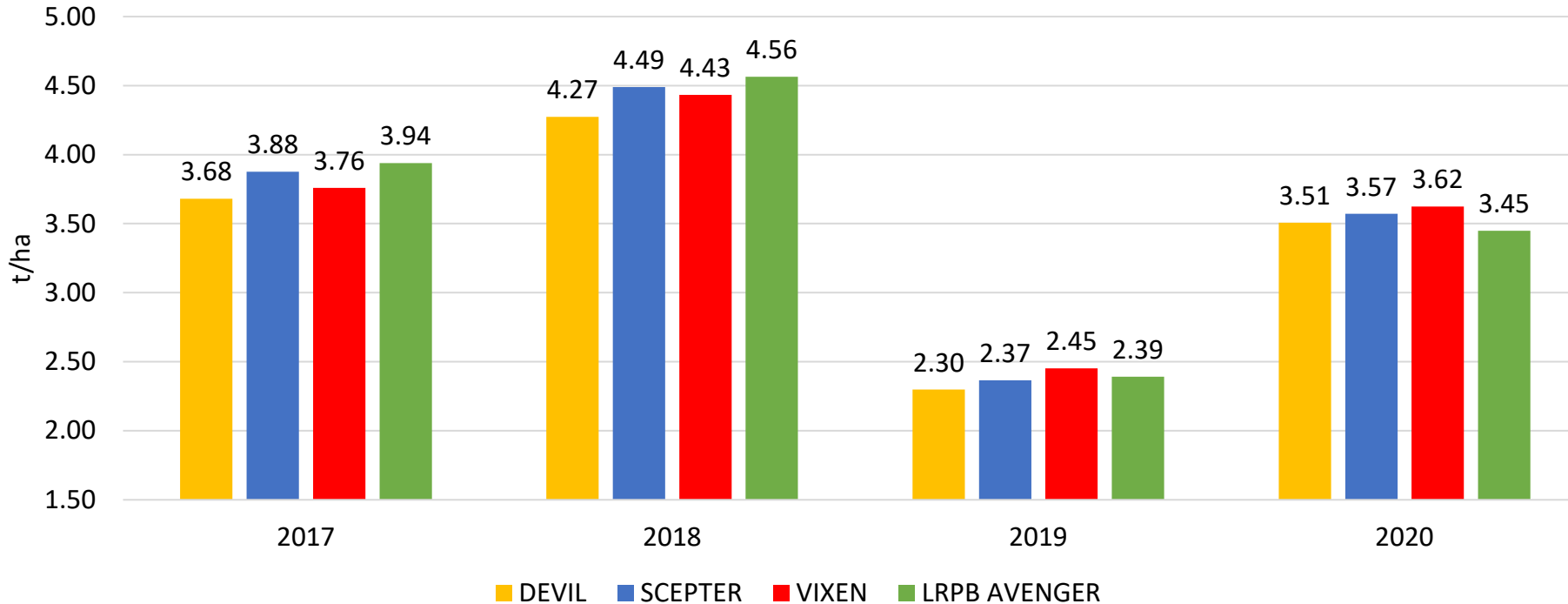
- Highly competitive between 1-3t/ha



# LRPB Yield Data – 4 Year MET

## Year on Year Comparisons

LRPB 4 Year MET avg t/ha year on year



- Avenger has shown stable and reliable yields across different years and seasons
- Out yielded Devil in 2017, 2018, and 2019
- Beat Scepter in 2017, 2018 and 2019
- In 2017 and 2018 out Yields Vixen on Avg t/ha

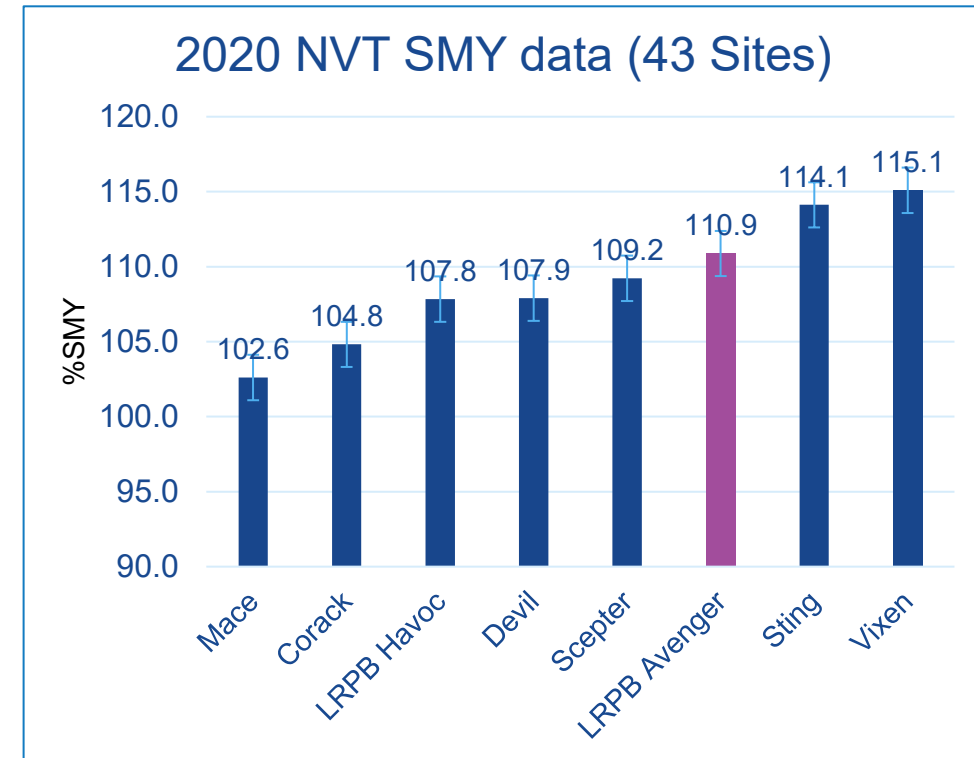
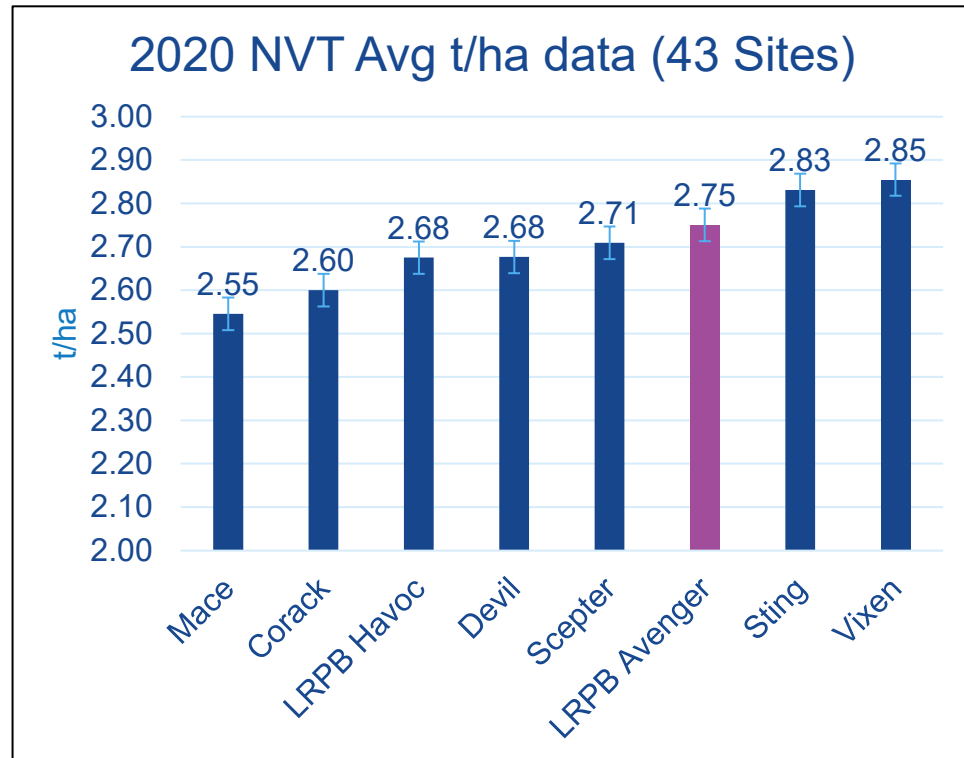


# LRPB Avenger Yield– NVT Mains MET Data

NVT Wheat Mains Four year MET (2016-2020) data SMY% Yield comparisons by Yield group													
	Group	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
	Mean Yield	0.43 t/ha	0.85 t/ha	1.34 t/ha	1.81 t/ha	2.25 t/ha	2.80 t/ha	3.28 t/ha	3.81 t/ha	4.25 t/ha	4.73 t/ha	5.20 t/ha	5.80 t/ha
	Trials	3	7	21	16	20	27	28	21	23	15	1	2
<b>LRPB Avenger</b>	<b>83</b>	<b>138</b>	<b>130</b>	<b>118</b>	<b>115</b>	<b>111</b>	<b>109</b>	<b>107</b>	<b>105</b>	<b>104</b>	<b>103</b>	<b>109</b>	<b>99</b>
Mace	184	117	114	108	107	105	104	103	102	102	101	104	99
Scepter	184	120	116	113	111	111	110	108	110	108	109	109	107
Sting	83	142	129	120	116	112	111	109	108	107	107	106	102
Vixen	156	149	136	123	119	114	112	110	108	107	107	106	100

- Competitive yield sweet spot- 0.5-2.5 t/ha
- Comfortably out yields Scepter and Mace in the tough marginal medium to low-yielding environments
- Ideally fit for typical WA on farm battel grounds with average state yields normally between 1.6-1.8 t/ha
- Overall very competitive with current bench mark quicks

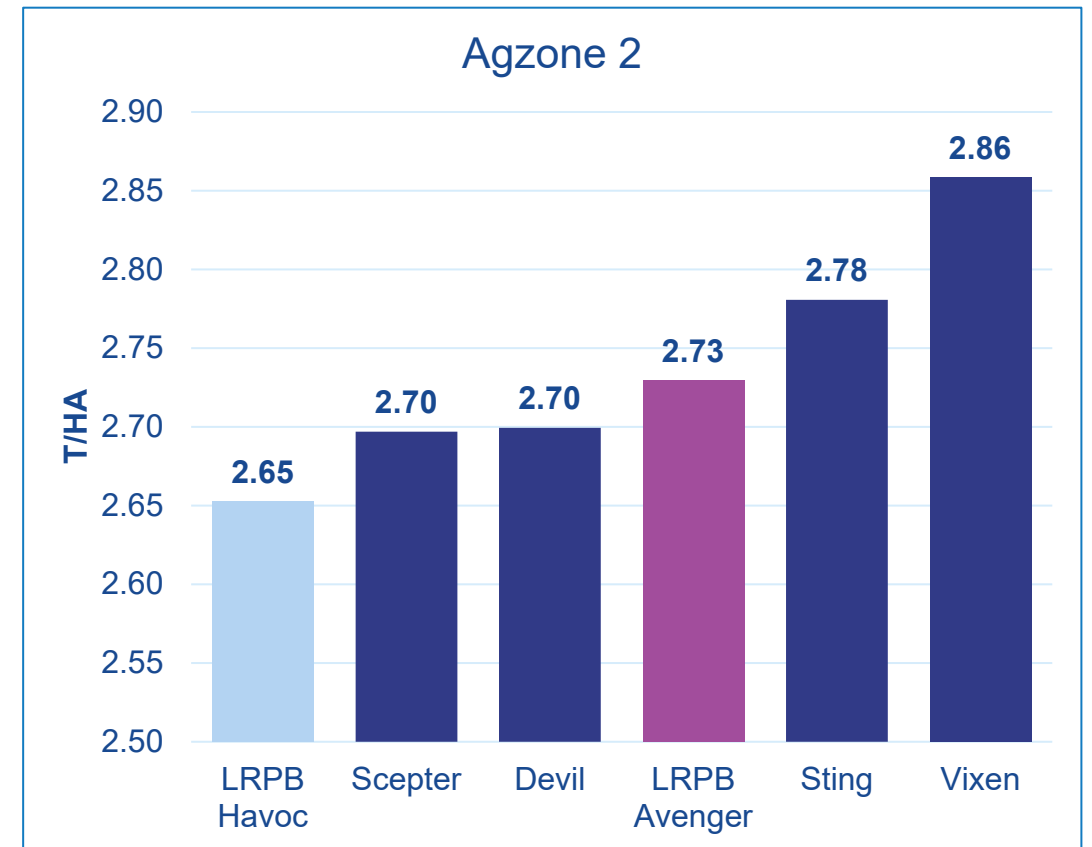
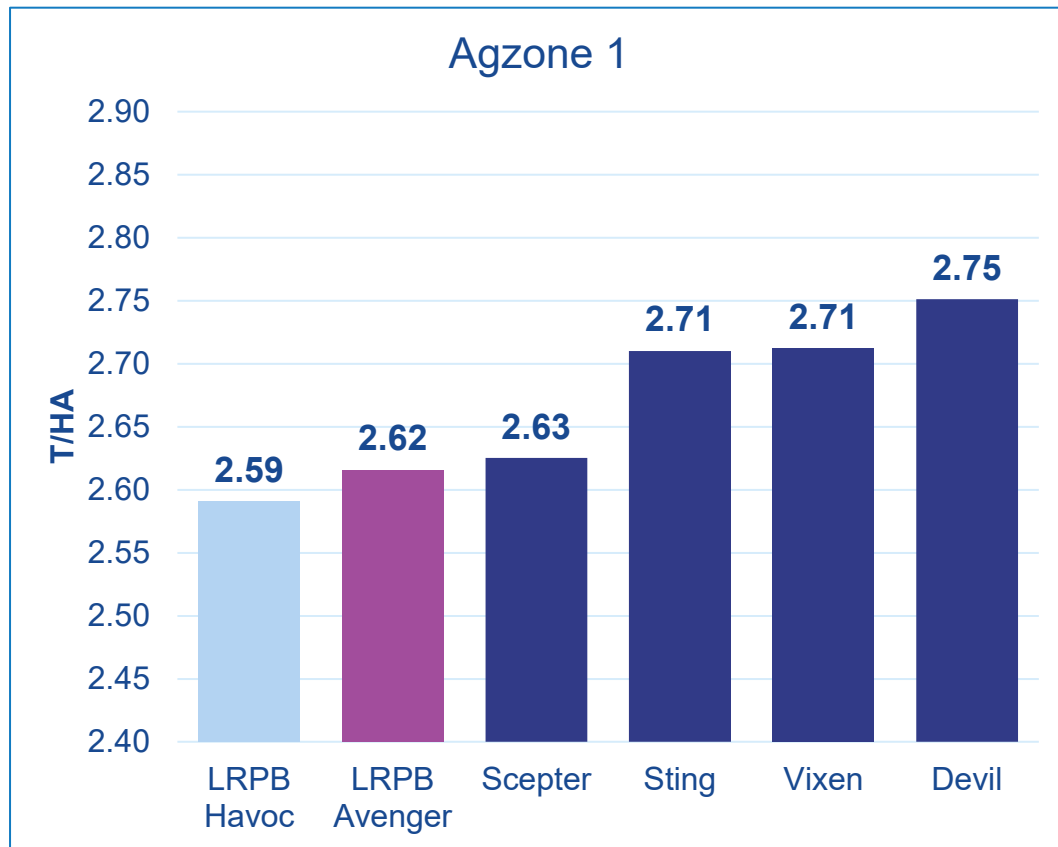
# LRPB Avenger Yield– NVT Mains 2020 Data



- Yield Sweet Spot- 0.5-3.0 t/ha
- Out yields Scepter between 0.5-2.5 t/ha range
- 1-2% better yields than Scepter in 2020 NVT
- Overall very competitive with quicks Vixen and Sting

# LRPB Avenger Yield– NVT Main 2019-2020 Data

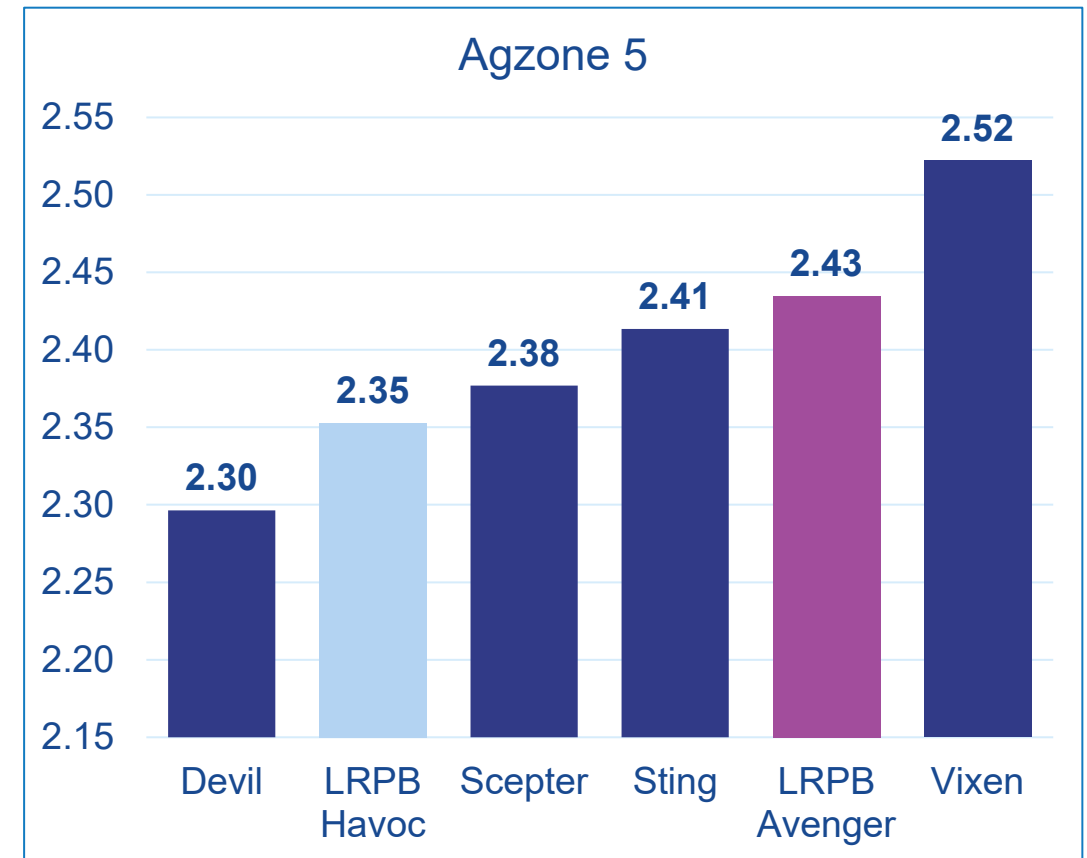
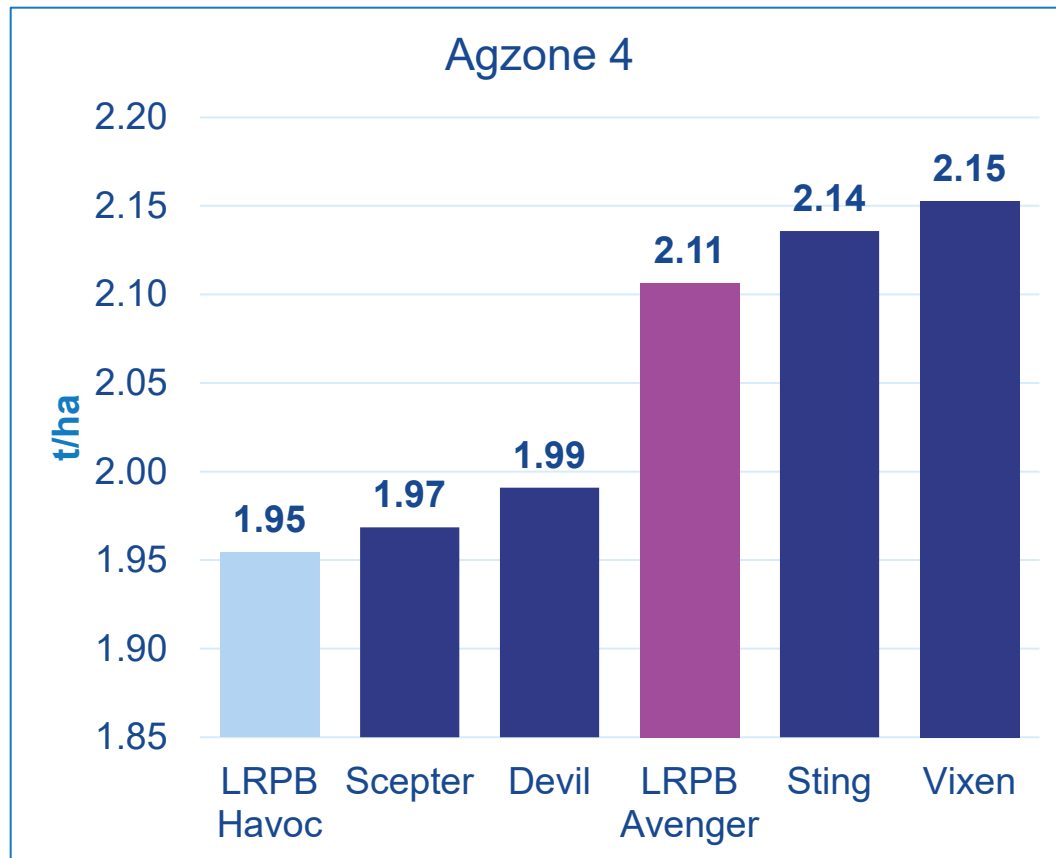
Average Yield t/ha Agzone Performance Comparisons





# LRPB Avenger Yield– NVT Main 2019-2020 Data

Average Yield t/ha Agzone Performance Comparisons



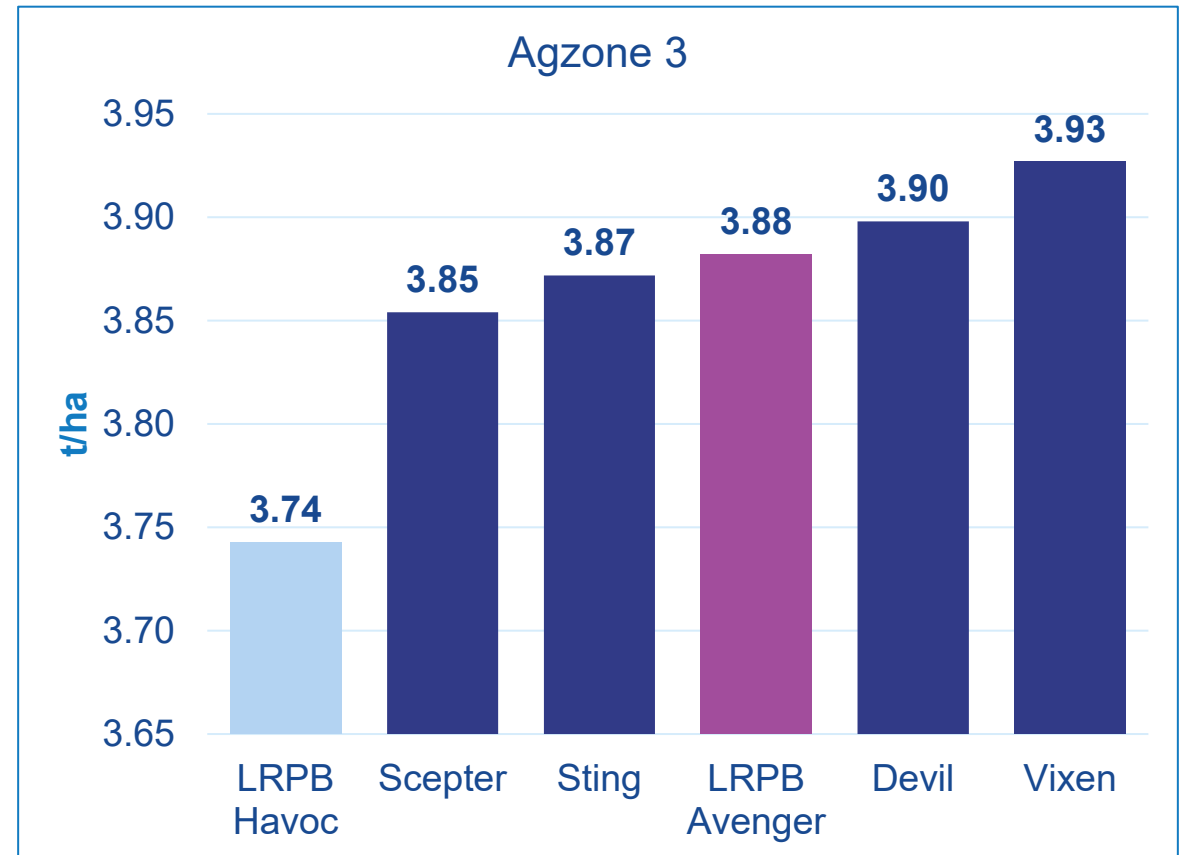
# LRPB Avenger Yield– NVT Main 2019-2020 Data

## Average Yield t/ha Agzone Performance Comparisons

LRPB Avenger is also very competitive in the softer higher yielding environments of Agzone 3

The best over all yield competitiveness has been in the real tough, low-medium yield potential environments of Agzone 2, 3, 4 & 5

LRPB Avenger is not recommended for Agzone 6



# LRPB Avenger 2020 NVT Grain Receivals Data

Screenings				
43 sites - All Agzones				
Variety Name	Avg	Sites >5%	MAX	MIN
LRPB Avenger (APW(N))	2.8	7	14.2	0.0
Vixen (AH(N))	3.2	8	12.6	0.4
Scepter (AH)	3.5	9	16.0	0.2
Devil (AH(N))	3.9	12	16.1	0.1
Sting (AH)	4.1	12	14.3	0.6

Test Weight				
43 Sites - All Agzones				
Variety Name	Avg	Sites <76	MAX	MIN
Scepter (AH)	79.7	5	85.0	66.2
LRPB Avenger (APW(N))	79.4	4	84.4	71.9
Sting (AH)	79.3	4	85.2	71.8
Devil (AH(N))	79.0	6	83.5	69.9
Vixen (AH(N))	78.8	4	84.0	71.0

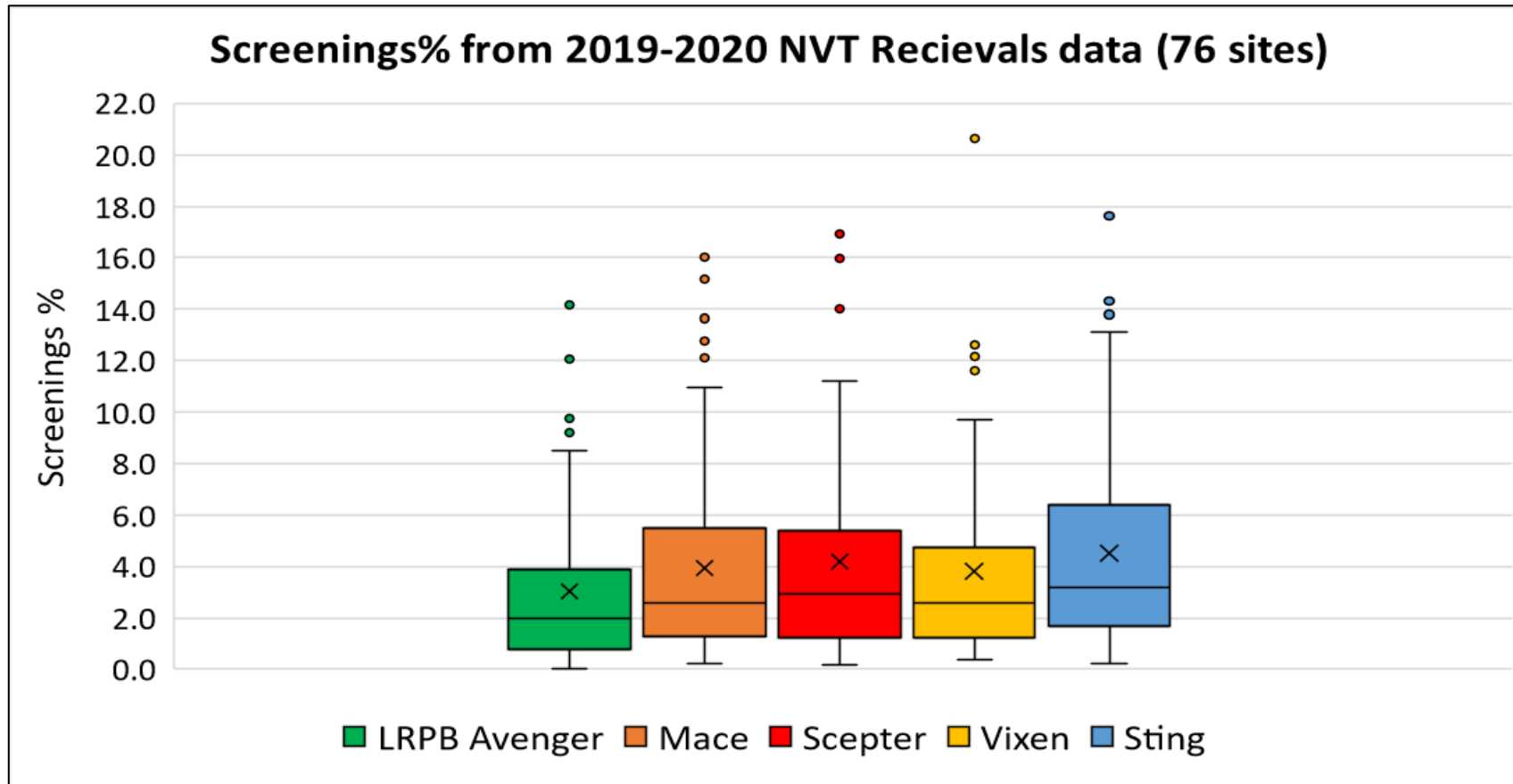
Thousand Grain Weight				
43 Sites - All Agzones				
Variety Name	Avg	Sites <30g	MAX	MIN
LRPB Avenger (APW(N))	39.6	1	53.2	29.3
Scepter (AH)	38.9	2	54.1	24.9
Vixen (AH(N))	38.6	3	55.2	25.6
Sting (AH)	38.3	1	51.8	29.3
Devil (AH(N))	37.6	4	52.7	27.2

Protein				
43 Sites - All Agzones				
Variety Name	Avg	Sites <11.5%	Max	Min
LRPB Avenger (APW(N))	12.5	11	16.2	9.4
Vixen (AH(N))	12.2	12	16.2	8.9
Sting (AH)	12.2	11	16.2	8.7
Devil (AH(N))	12.0	19	16.6	9.1
Scepter (AH)	11.9	15	16.4	8.4

- Excellent grain receivals package when compared to current varieties
- A reliable physical grain package displaying consistently lower screenings, higher average grain weights and stable test weights
- Able to hold-up to tight-hard quick finishes, typical of WA seasons, for reliable deliveries
- More often than not, will hold on to its APW(N) classification specs
- A stable variety that is battle hardy for WA on farm conditions



# LRPB Avenger NVT Grain Receivals % Screenings



- LRPB Avenger Displays a consistently lower average Screenings% and narrower range of site variation (0-4%)
- A dependable grain deliverer

# LRPB Avenger – Battle Ready & Tough APW(N)

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