

“Getting The Crop In – 2016” Hart Group - Cereal Variety Update

SOUTH
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Photo
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New Variety Agronomy Group/SARDI



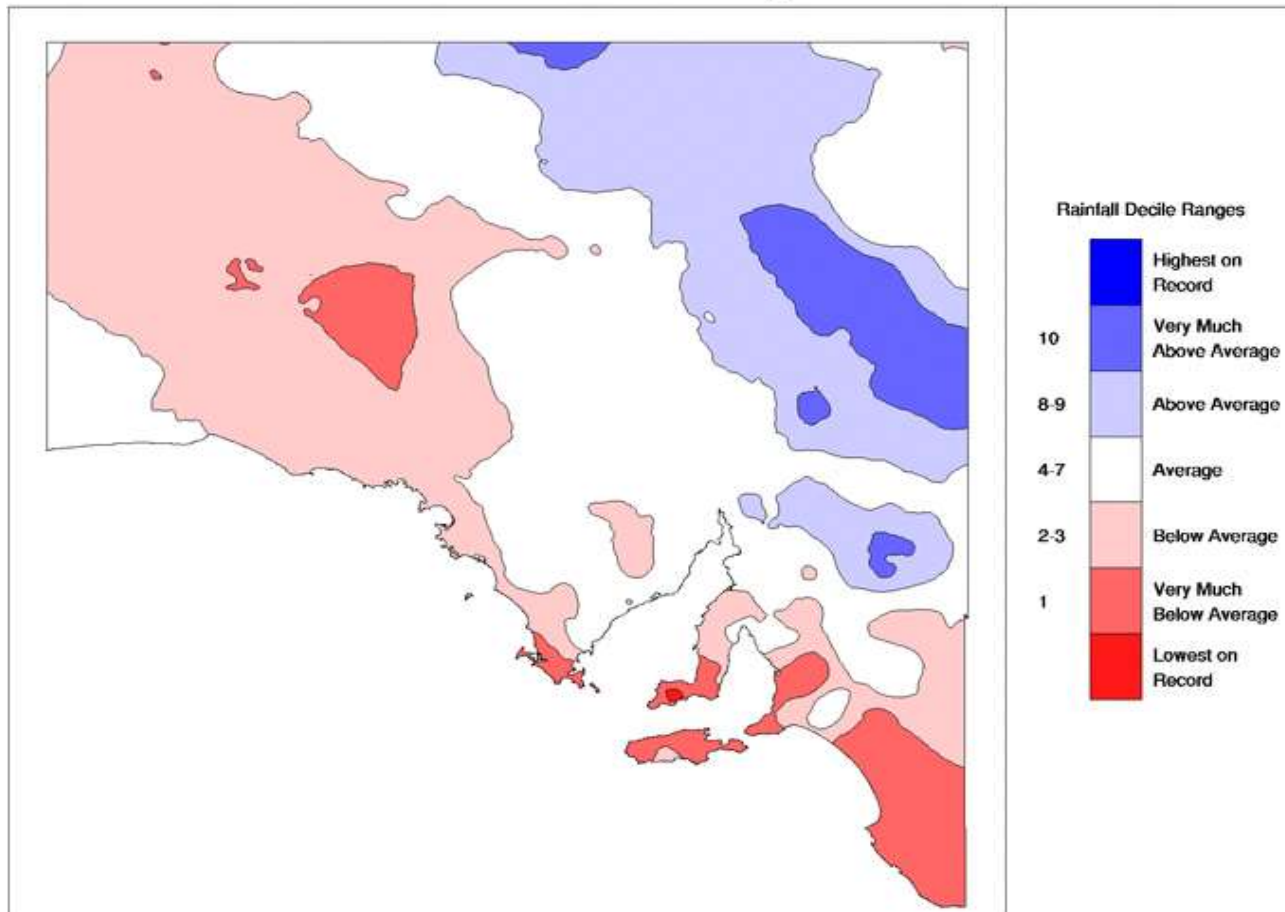
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- **National Variety trial cereal overview**
 - **What is new, how did they perform last year and what fit do they have?**

2015 seasonal conditions

South Australian Rainfall Deciles 1 January to 31 December 2015

Distribution Based on Gridded Data
Australian Bureau of Meteorology

- Timely and good opening rains (generally)
- Wet and cold early winter
- Very dry and warm late winter and spring
- Low disease pressure overall
- Extensive frosts in eastern districts
- Overall favouring early and mid maturing varieties



All NVT wheat sites, year by year yield and quality comparison in SA

	2010	2011	2012	2013	2014	2015 (26 sites)
Yield (t/ha)	4.34	3.63	2.77	3.44	3.11	2.48 (0.75 – 6.15)
Screenings (%)	1.9	1.4	2.7	2.3	2.4	5.5 (1.0 – 14.5)
Test weight (kg/hl)	77.3	80.9	82.6	82.5	81.9	78.2 (72.1 – 84.8)
Protein (%)	10.2	11.3	11.5	11.8	11.4	12.8 (8.6 – 15.3)

- 2 frosted/droughted trials in 2015 (USE-Keith, Murray Plains-Palmer)
- Greater spread in sites quality in 2015 esp. scr, TW

“What’s New in wheats for SA”

2015

Hatchet^{CLPLUS^A} (AGT)
 Beckom^A (AGT)
 Scepter^A (AGT)
 Cutlass^A (AGT)
 DS Darwin^A (Dow AgroSc.)
 DS Pascal^A (Dow AgroSc.)

2014

Cosmic^A (Intergrain)
 DBA Aurora^A (Durum Breeding Aust)
 SF Adagio^A (Seed Force)
 SF Senerio^A (Seed Force)

2013

LR Trojan^A (LRPB)
 Harper^A (Intergrain)
 Manning^A (HRZ wheats)

2012

Grenade^{CLPlus^A} (AGT)
 LR Phantom^A (LRPB)
 Shield^A (AGT)

2011

LR Cobra^A (LRPB)
 Corack^A (AGT)
 Emu Rock^A (Intergrain)
 Forrest^A (HRZ wheats)
 Wallup^A (AGT)
 LR Impala^A (LRPB)

2015 Wheat Releases

Hatchet ^{CLPLUS^A} (AH)

- Very early flowering, Axe derived, IMI tolerant, ex AGT
- Disease resis “like Axe” , improved CCN - MR but lower Yr - MRMS and Lr - **SVS**
- Grain quality like Axe
- **issues still YLS - S , Lr - SVS, stb - SVS, yield? Some diseases/tolerances yet to be rated ? Yields influenced by frost in NVT**

Beckom^A (AH)

- mid flowering, Anuello&Young derived, ex AGT
- CCN-R, Sr-MR, Yr-MRMS, Lr-**S**, YLS-MSS, stb-**SVS**
- mod grain quality, (small grain)
- **issues Lr , stb, grain size?**

2015 Wheat Releases

DS Darwin^A (AH)

- early-mid flowering, ex Dow Seeds
- CCN - MSS, Sr - MR, Yr - MR, Lr - **SVS**, YLS - S, stb - **SVS**, BP - MR
- Grain quality good – limited evaluation in SA
- **issues CCN, Lr, stb, limited evaluation? moderate yields?**

DS Pascal^A (APW)

- late flowering (like Bolac), ex Dow Seeds
- Sr – **MS-S**, Yr - MR, Lr - MRMS, YLS - MS, stb – **MS-S**
- Grain quality good + PHS tolerance – limited evaluation in SA
- **issues Sr , limited evaluation, target SE of SA?**

CENTRAL REGION

Grade

Scepter	AH
Mace	AH
Cosmick	AH
Beckom	AH
Cobra	AH
Emu Rock	AH
Scout	AH
Hatchet CLPlus	AH
Axe	AH
DS Darwin	AH
Gladius	AH
Kord CLPlus	AH
Shield	AH
Grenade CLPlus	AH
Yitpi	AH
Trojan	APW
Cutlass	APW
Corack	APW
Mean (t/ha)	
Trial Number	

Scepter vs Mace – the fit ?

- 2015 first year in NVT in SA....
- All seed 'sold out' on release
- No detected physical quality issues, BP?
- Improved disease resistance eg Yr, stb but some unrated?

	Stem	Rust Stripe	Leaf	Septoria tritici blotch	CCN Resistance	Yellow leaf spot	Powdery mildew	Root lesion nematodes <i>P. neglectus</i> <i>P. thornei</i>		Crown rot
Mace	MR	SVS	MSS	SVS	MRMS	MRMS	MSS	MS	MS	S
Scepter	MR	MSS	MSS	S	MRMS	MRMS	–	–	–	–

- Limited NVT yield data (2015 only) 7% av. improvement in SA mallee (much lower elsewhere av. 2%>Mace)
- Greater advantage in low yielding (<3tn/ha) environments?

- NVT MET data

SAGI predictions

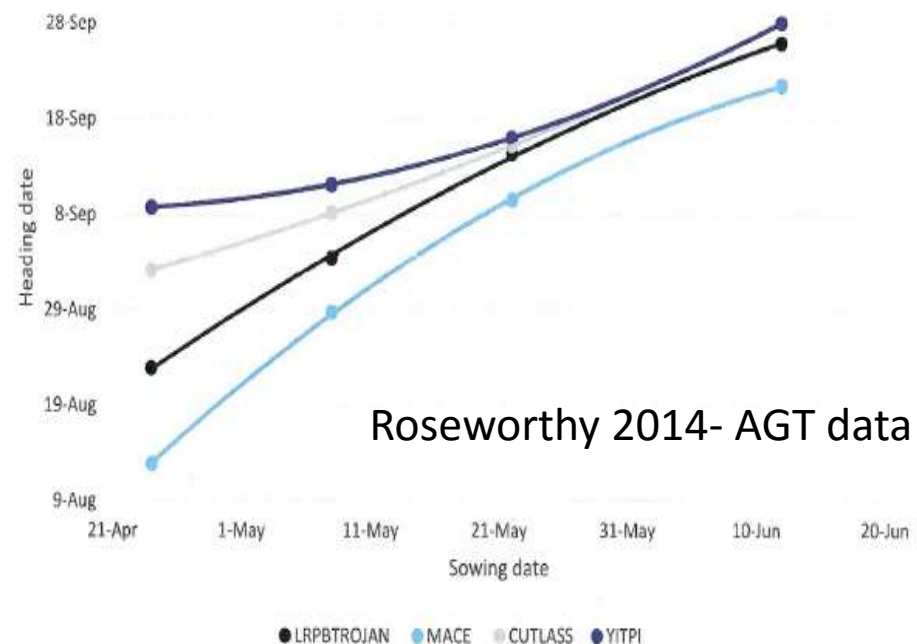
	1-2t/ha	2-3t/ha	3-4t/ha	4-5t/ha	5-6t/ha
Scepter	1.90	2.77	3.97	4.89	5.78
Mace	1.81	2.67	3.86	4.80	5.78
diff	6%	4%	3%	2%	0%

Cutlass vs Yitpi, Trojan

- 2015 first year in NVT in SA....
- No detected physical quality issues, sprouting?
- Improved disease resistance eg Sr, Lr, YLS over Yitpi, Trojan better for Yr and Bp, but some unrated diseases?

	Stem	Rust Stripe	Leaf	Septoria tritici blotch	CCN Resistance	Yellow leaf spot	Black point †
Cutlass	R	MS	RMR	MSS	MR	MSS	MS
Trojan	MRMS	MR	MRMS	MSS	MS	MSS	MRMS
Yitpi	S	MRMS	S	MSS	MR	SVS	MS

- Flowering/heading more similar to Yitpi than Trojan
- Limited yield data, in Mid North 8% above Yitpi, 5% below Trojan
- **Suit mid April planting before Trojan and Mace ? (Hunt, AGT)**





What is leading among durum varieties?

2015 and long term Durum Performance Yield and quality - SA NVT data



DBA-Aurora

Saintly

WID802

Yawa

Caparoi

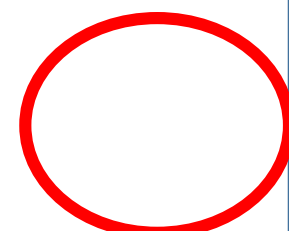
Tamaroi

Hyperno

Tjilkuri

Site Mean t/ha

Trial Number



Barley Varieties – What's NEW ??

- Latrobe – Intergrain,(now accred.malt)
- Rosalind – Intergrain,(feed) short strawed
- SpartacusCL – Intergrain,(pending malt 2018 ?)
- Compass UPDATE. Malt accred now march 2018 ?

2015 and Long Term 2009 - 2015 varietal performance (%SM) in Central Region



Central Region SA

Feed

Rosalind

Fathom

Fleet

Keel

Oxford

Malting & Food

La Trobe

Hindmarsh

Charger

Commander

GrangeR

Buloke

ScopeCL

Schooner

Under Accredit.

Compass

SpartacusCL

Number of trials

Site Mean (t/ha)

SpartacusCL vs ScopeCL – the fit ?

- Spartacus 2 years in NVT....
- SpartacusCL agronomically like Latrobe/Hindmarsh +IMI tolerance
- SpartacusCL- better quality (Ret, Scr. Pending malt???) than Scope
- Improved disease resistance eg Lr, SFNB, CCN
- Greatly improved yield (15%?)
- Improved straw strength (like Hindmarsh) and head holding
- Low itch

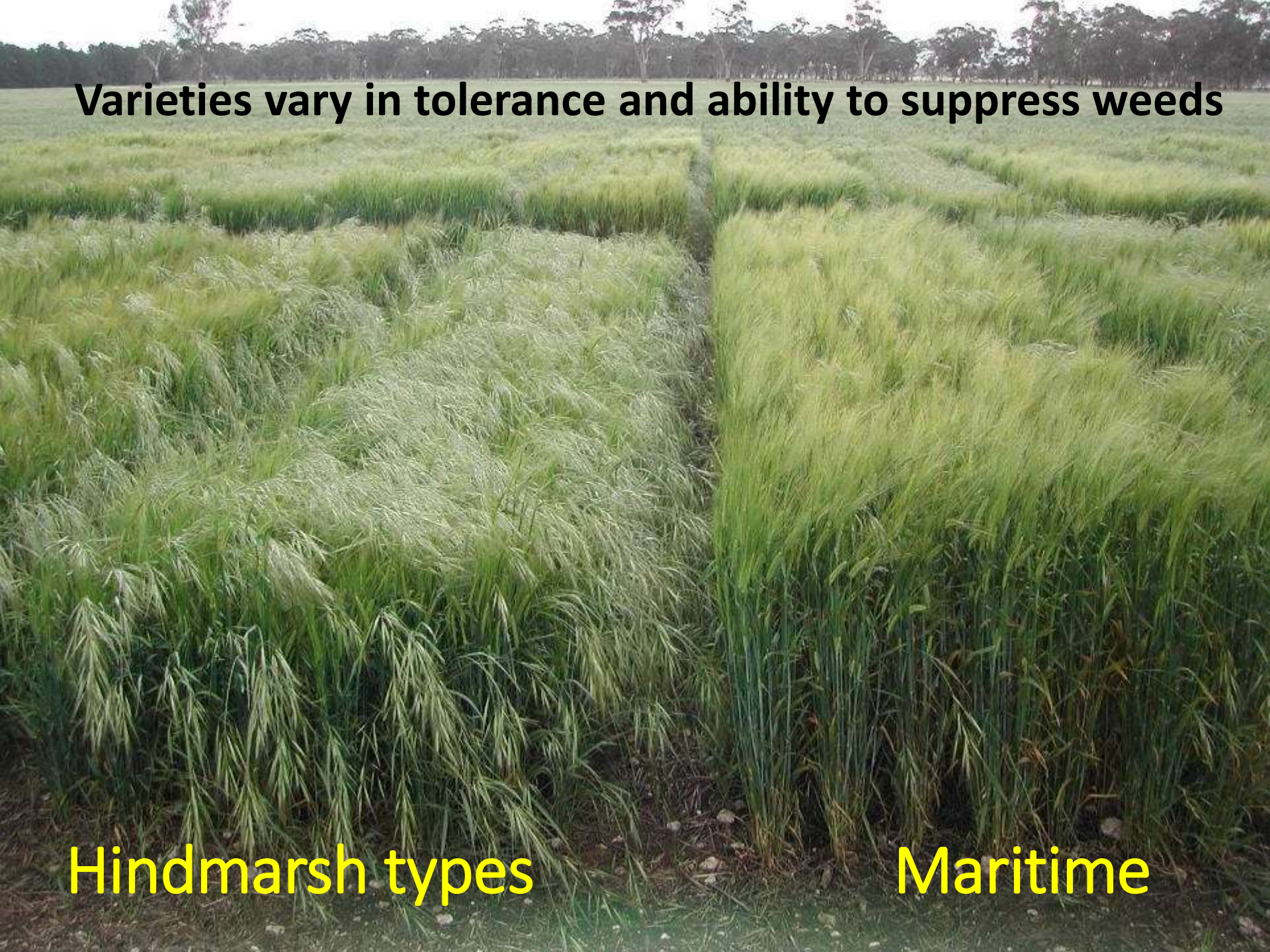
ISSUES ?

- Short coleoptile ?
- Poor early vigour ☹
- Poor weed competitiveness ☹
- Short strawed ?
- Malt accreditation – Mar 2018 ?
- **Still a place for ScopeCL on lighter soils and weedy situations**

Varieties vary in tolerance and ability to suppress weeds

Hindmarsh types

Maritime



Acknowledgements

**NVT, BOM, Viterra, AGT, Hugh Wallwork, SARDI NVA group,
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QUESTIONS ?