

# Capturing early sowing opportunities for wheat in WA

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# Today's discussion

- Focusing on trials sown at Mullewa, Merredin, Katanning and Esperance in 2016 and 2015
- Sown mid April, early May and late May
- Observed flowering dates
- Yield responses
- Grain quality issues



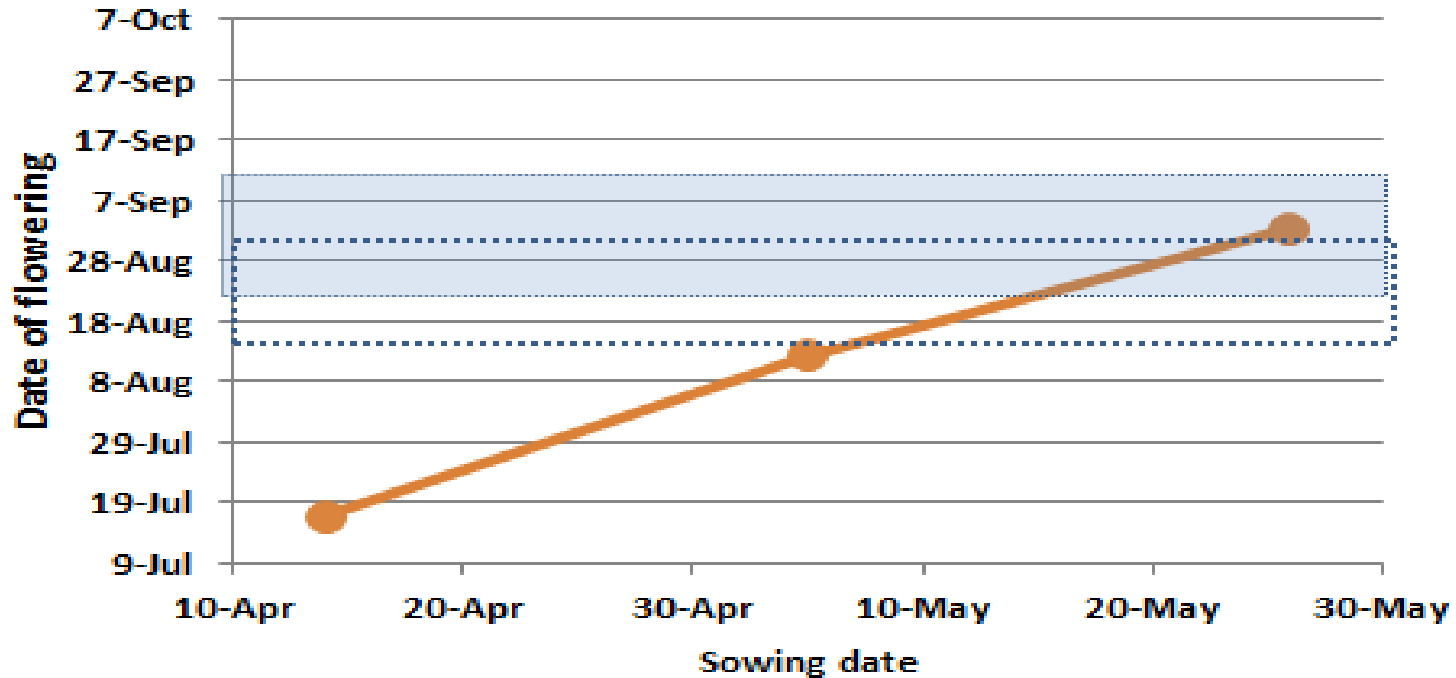
Opportunistic – who needs a boat ?  
(Feb 10,2017)



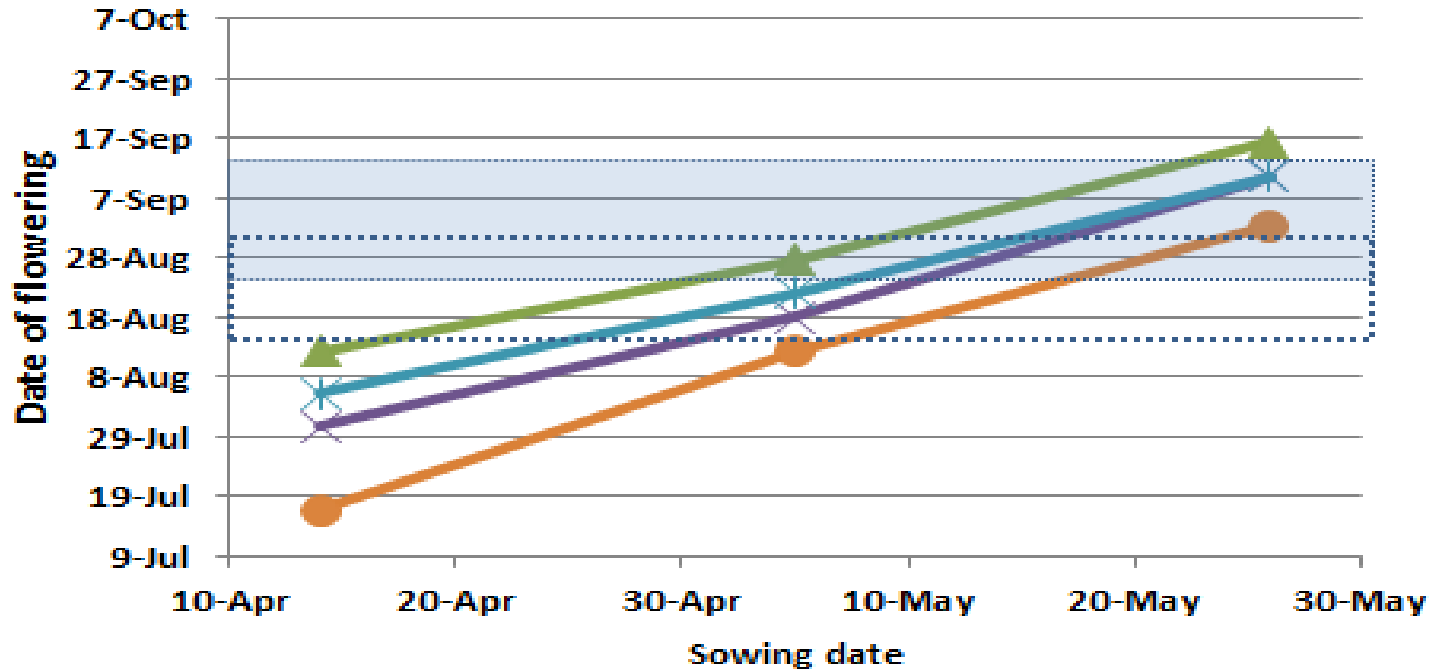
# Key messages

- Mace is not suitable for April sowing times but other current mid - long maturing varieties have good adaptation for yield in WA.
- Forrest more robust for mid April sowings in WA while winter wheats more suitable for the longer, cooler environments.
- Even longer season spring and winter wheats can be severely damaged by frost.
- Downgrading due to Blackpoint is a concern for early sowing.

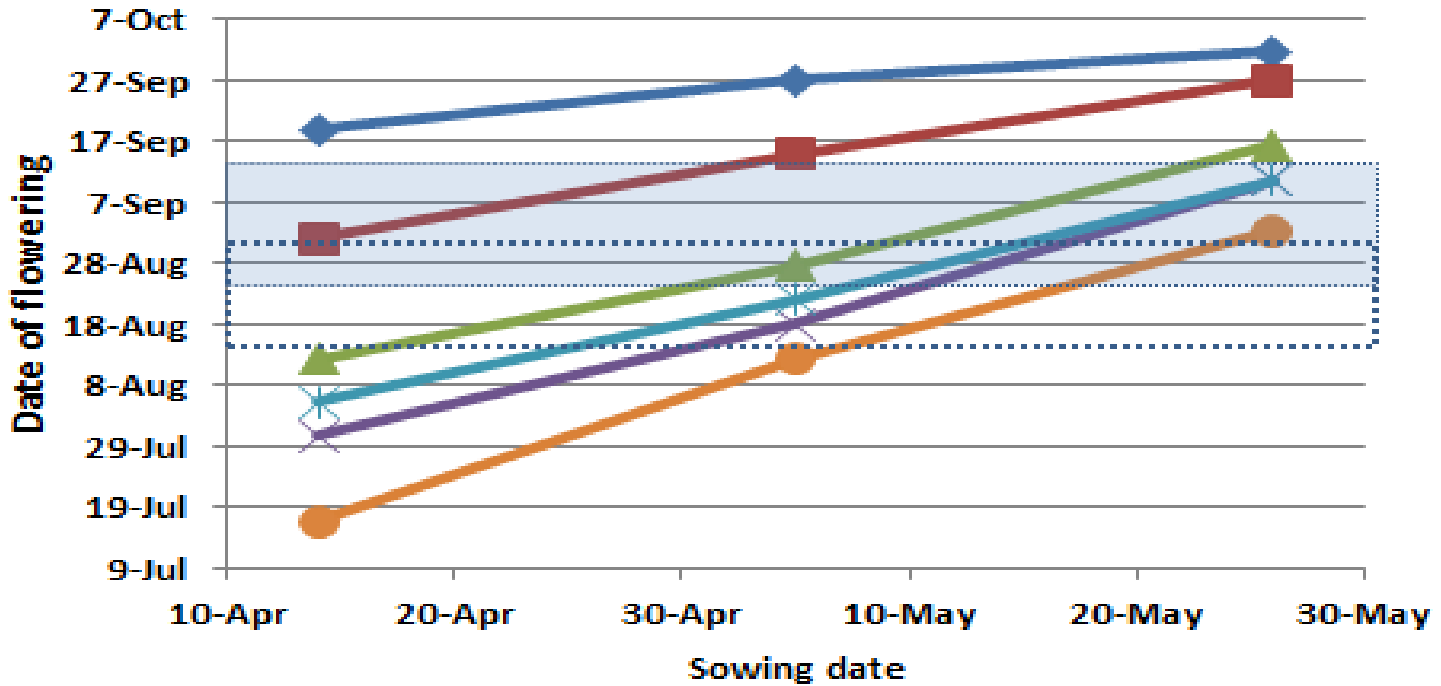
# Date of flowering for selected wheat varieties as sowing is delayed from mid April, Mullewa 2016



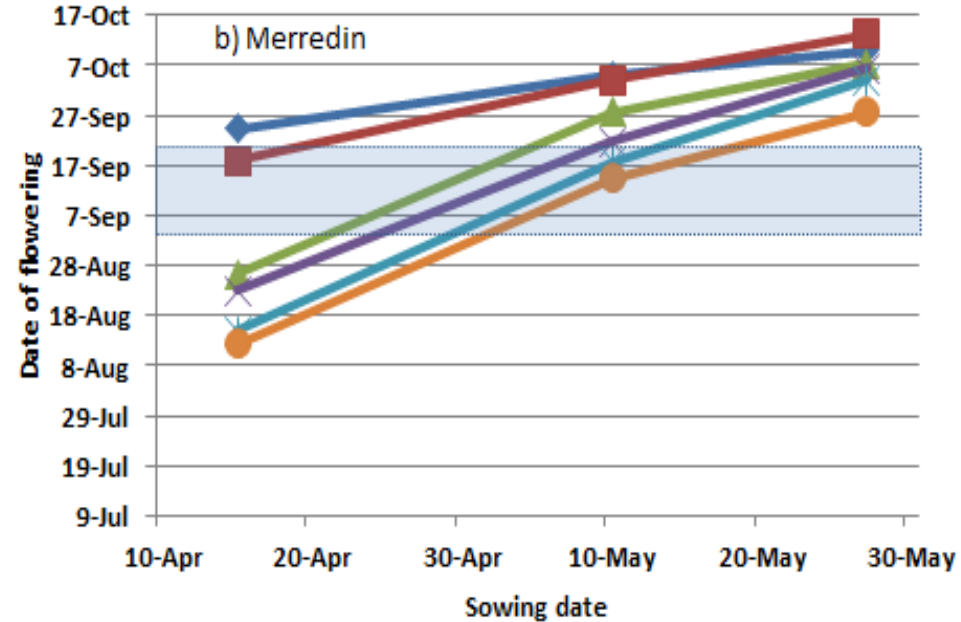
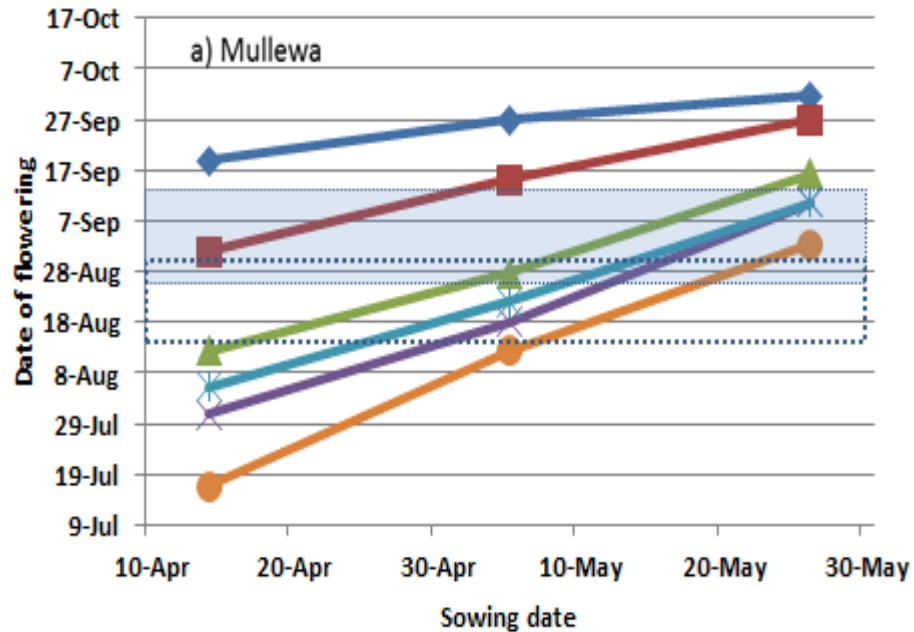
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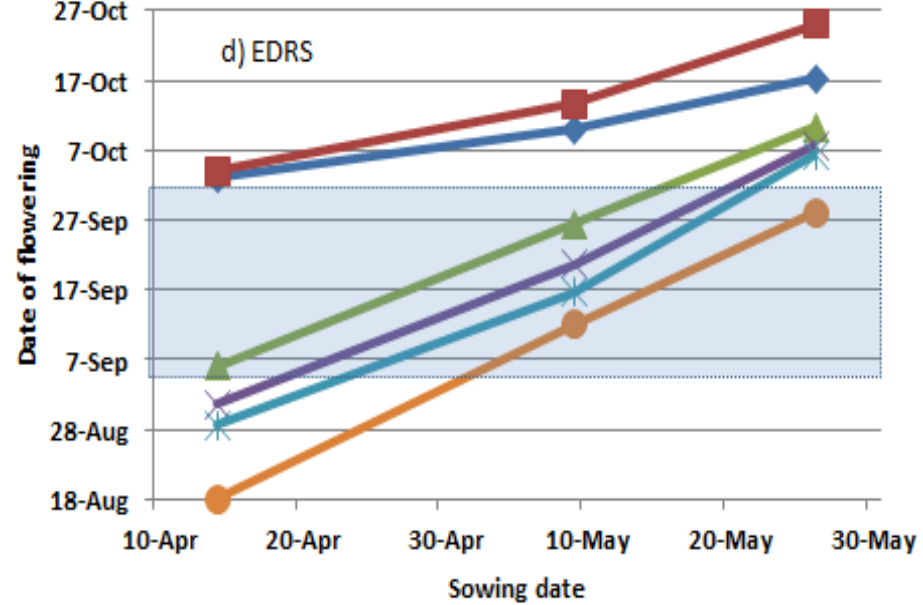
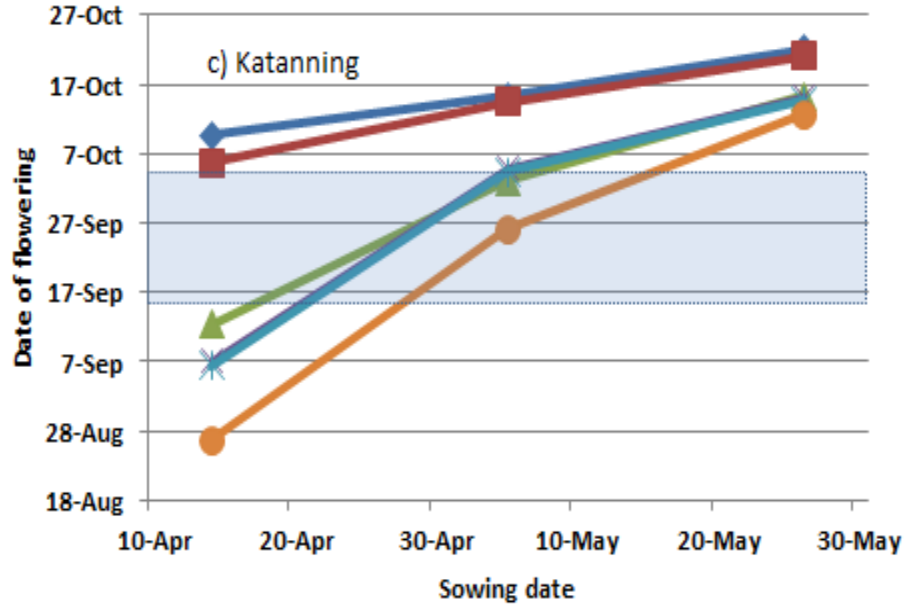
# Date of flowering for selected wheat varieties as sowing is delayed at Mullewa and Merredin, 2016



◆ Wylah 
 ■ Forrest 
 ▲ Cutlass 
 ✕ Magenta 
 ✱ Trojan 
 ● Mace



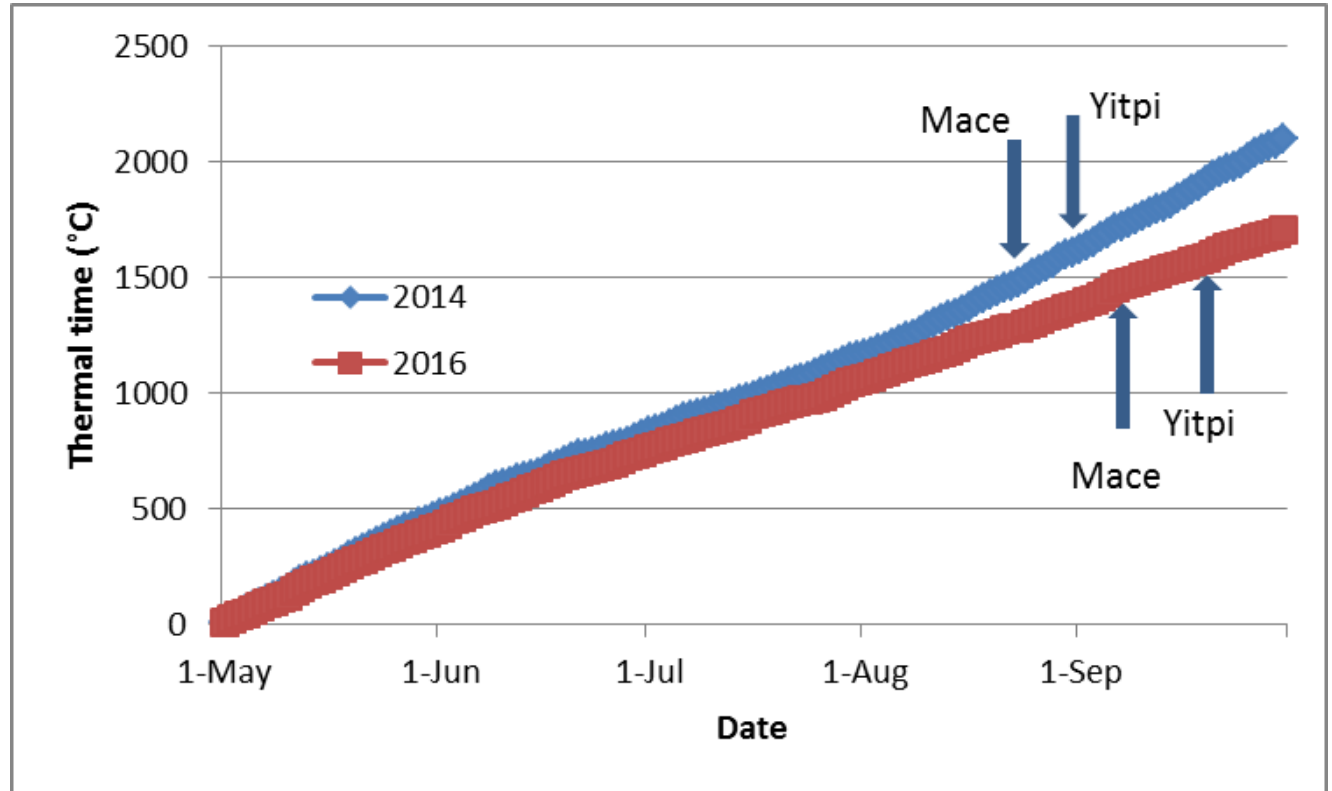
# Date of flowering for selected wheat varieties as sowing is delayed at Katanning and Esperance, 2016



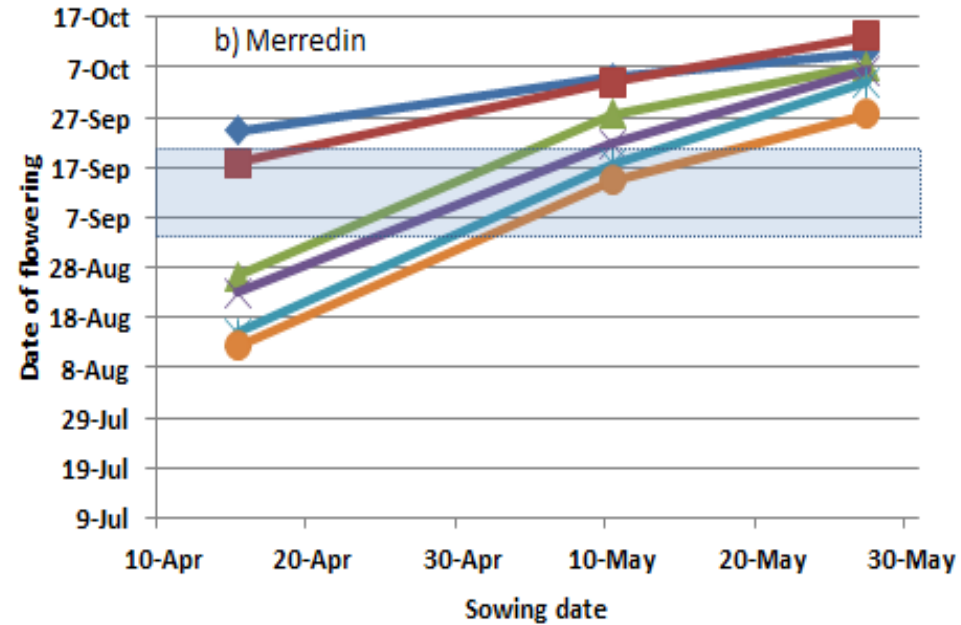
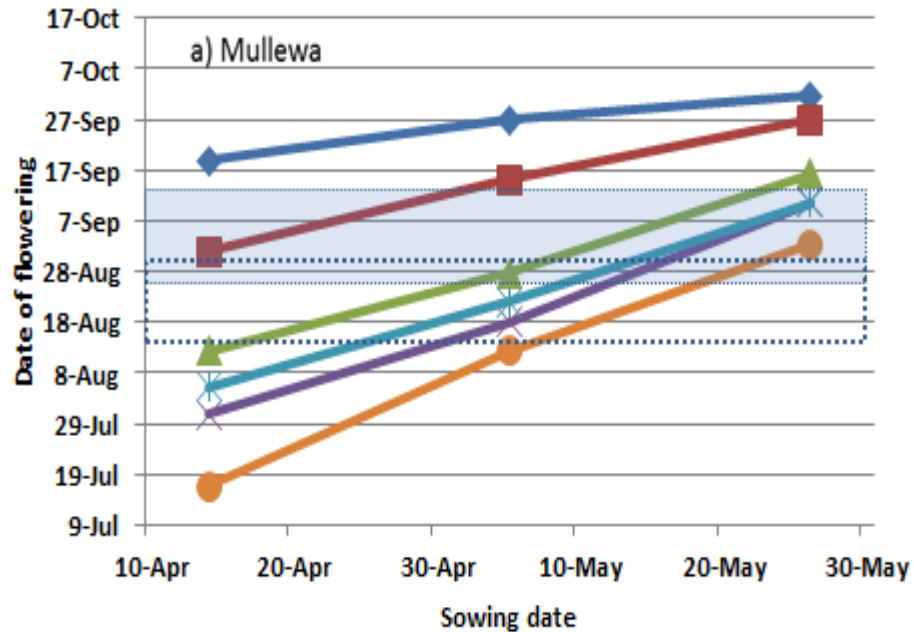
◆ Wylah 
 ■ Forrest 
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# Difference in thermal time accumulation between 2014 and 2016 and the flowering dates of Mace and Yitpi sown May 1 at Merredin

- ~ 2 weeks difference

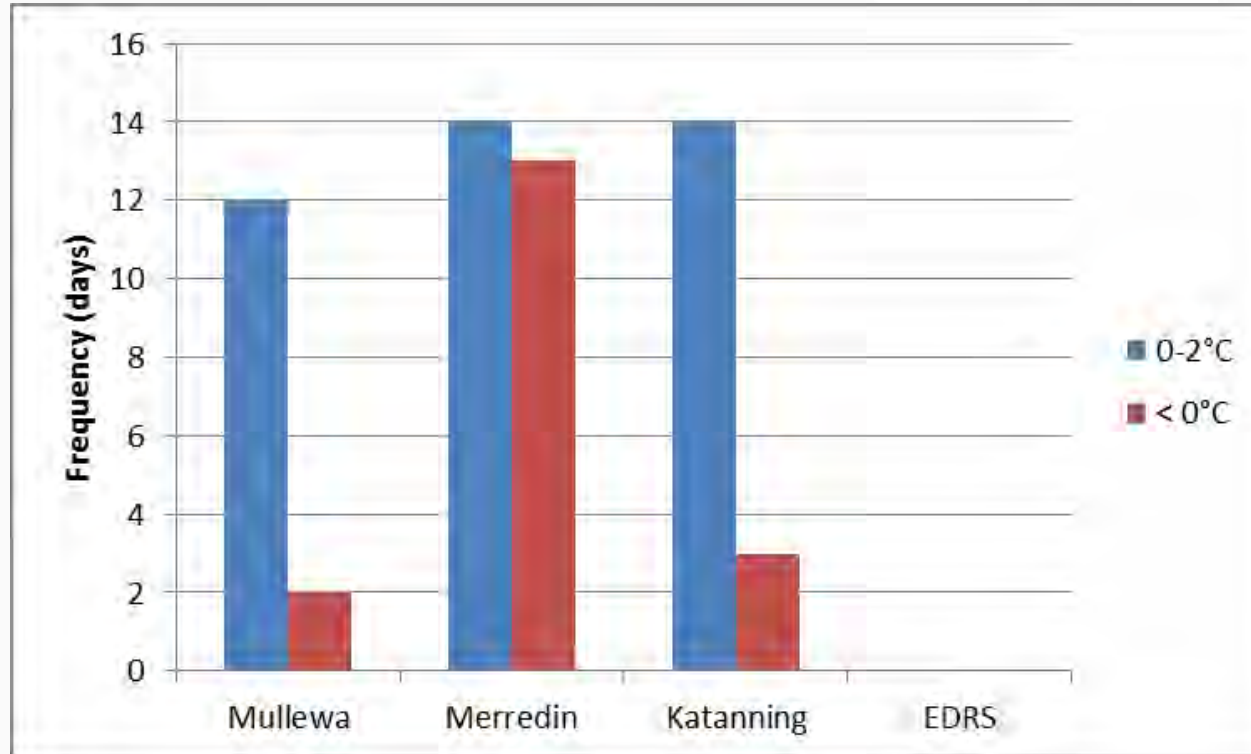


# Date of flowering for selected wheat varieties as sowing is delayed at Mullewa and Merredin, 2016



◆ Wylah 
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# 2016 was overall colder but also had a significant number of frost events

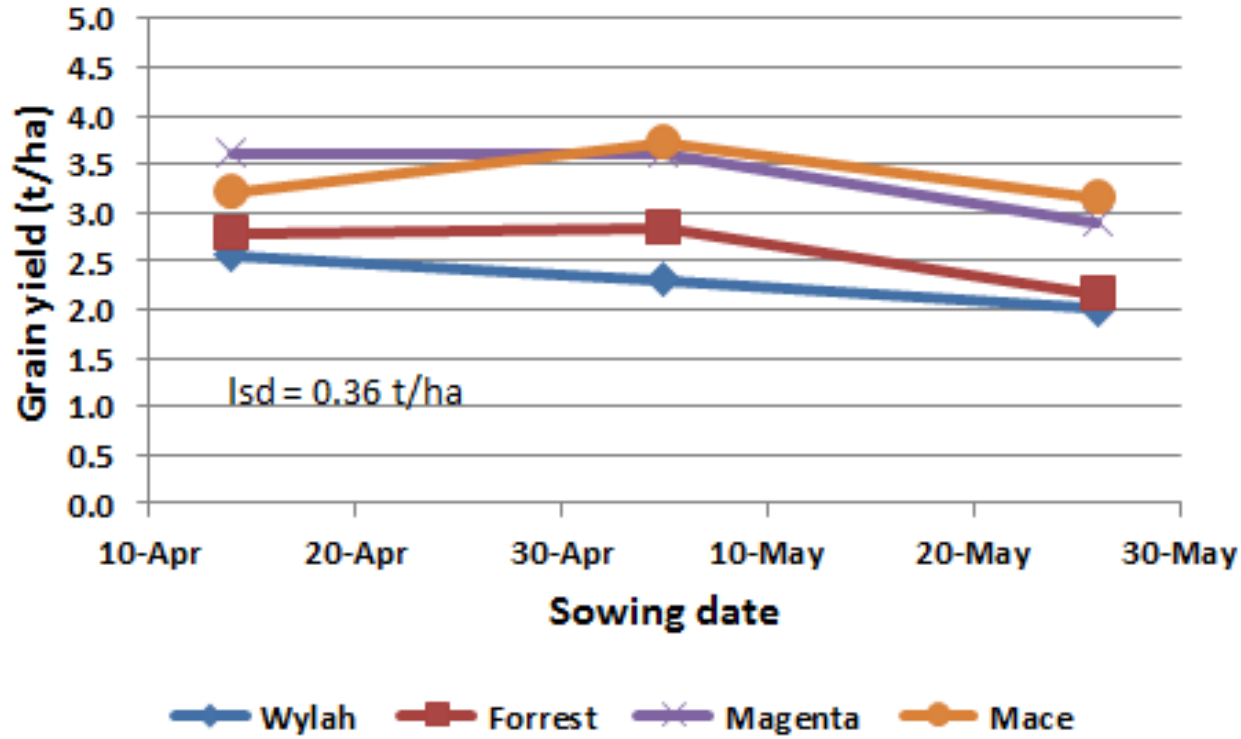


- Katanning the only site with significant frost damage

# So what yields were achieved sowing early?



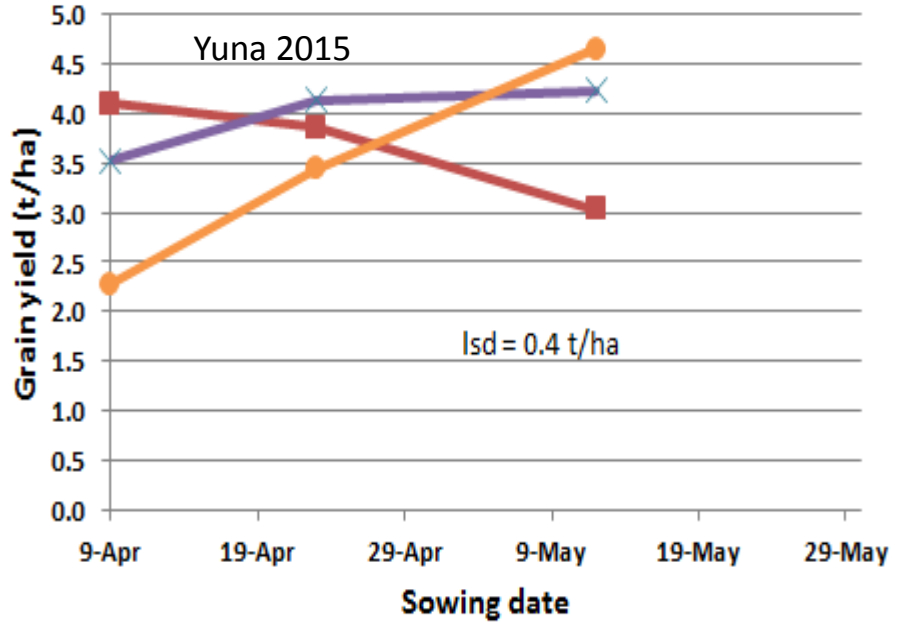
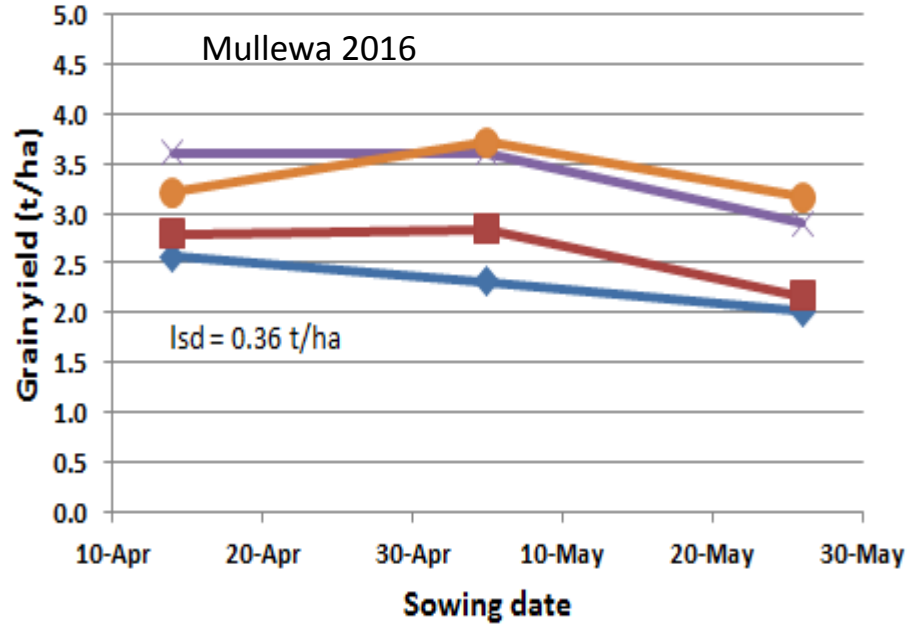
# Yield (t/ha) response of varieties to sowing time at Mullewa, 2016



- Longer maturing varieties not competitive
- Highest yields early May



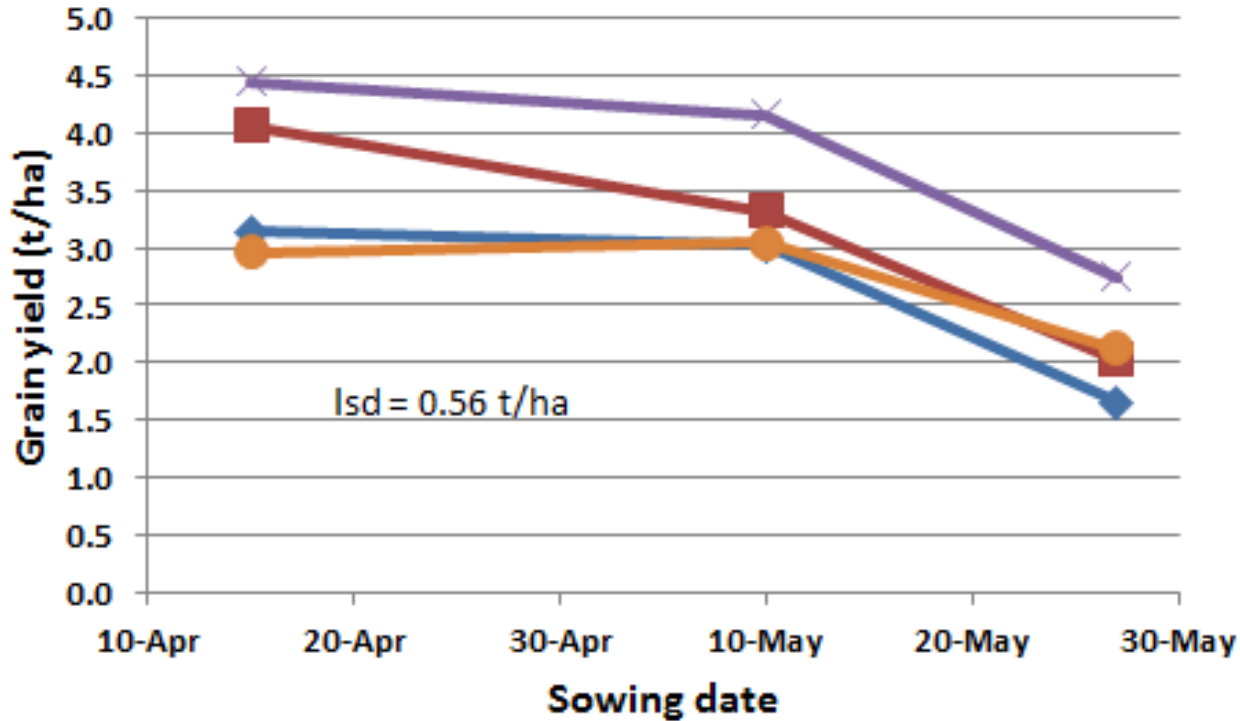
# Yield (t/ha) response of varieties between sites and years



Wylah Forrest Magenta Mace

*Yuna data courtesy for the Geraldton RCSN and DAFWA*

# Yield (t/ha) response of varieties to sowing time at Merredin, 2016

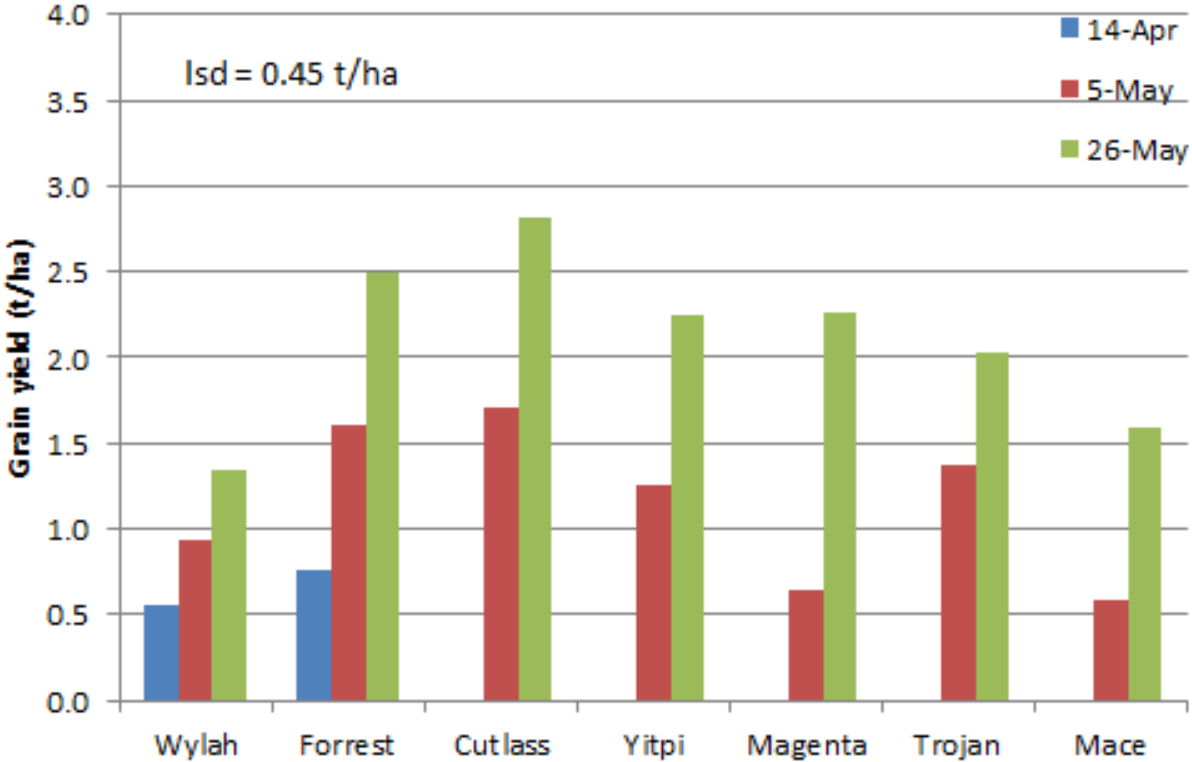


- Forrest competitive mid April sowing
- Highest yield mid April

A wide-angle photograph of a vast, flat field of golden-brown wheat. The field stretches to the horizon under a clear, bright blue sky. In the far distance, a dense line of green trees is visible. The text "Looks can be deceiving....." is overlaid in the center of the image in a black, sans-serif font.

Looks can be deceiving.....

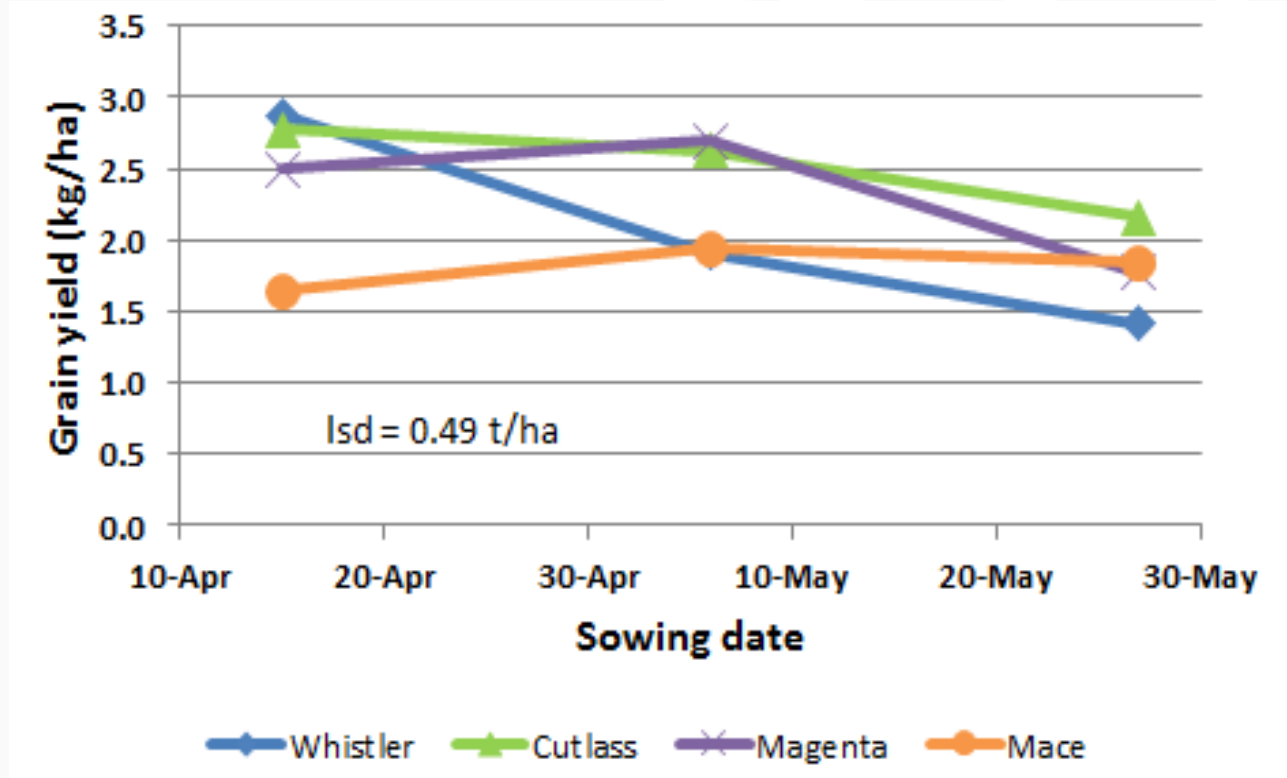
# Yield (t/ha) response of varieties to sowing time at Katanning, 2016



- FROST



# Yield (t/ha) response of varieties to sowing time at Katanning, 2015

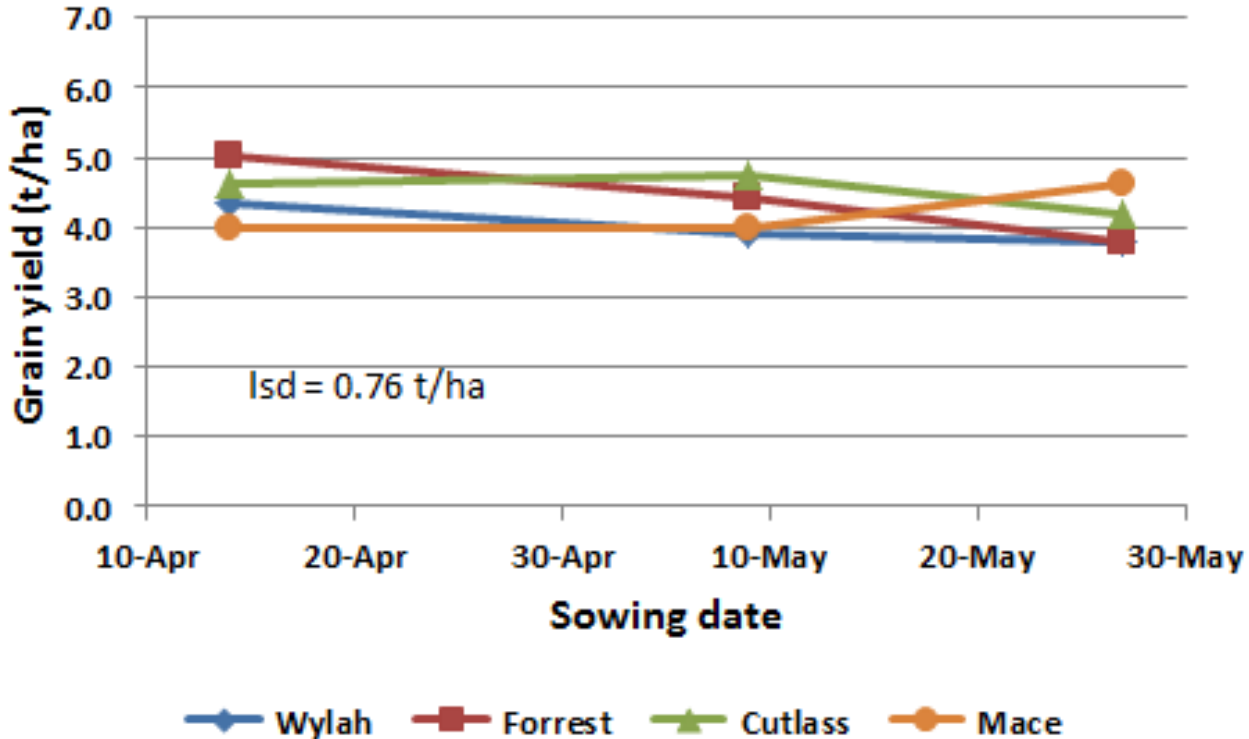


- Winter wheat competitive mid April





# Yield (t/ha) response of varieties to sowing time at EDRS, 2016

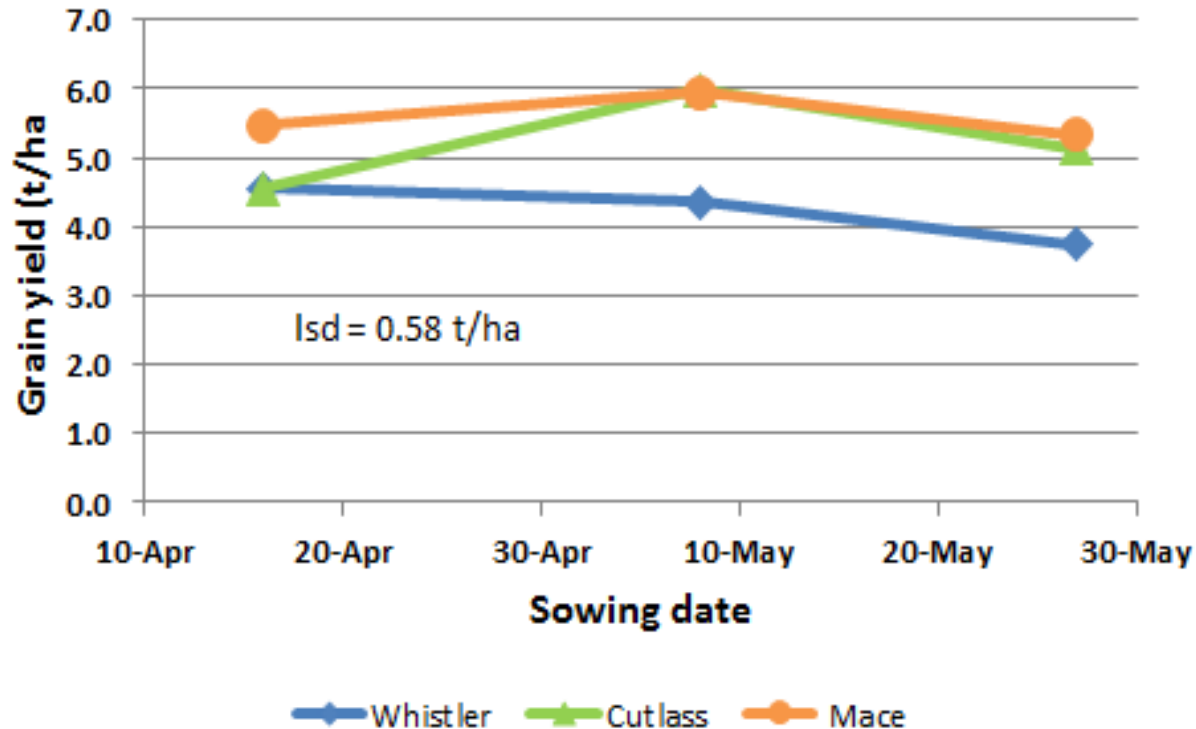


- Limited yield penalty with delayed sowing





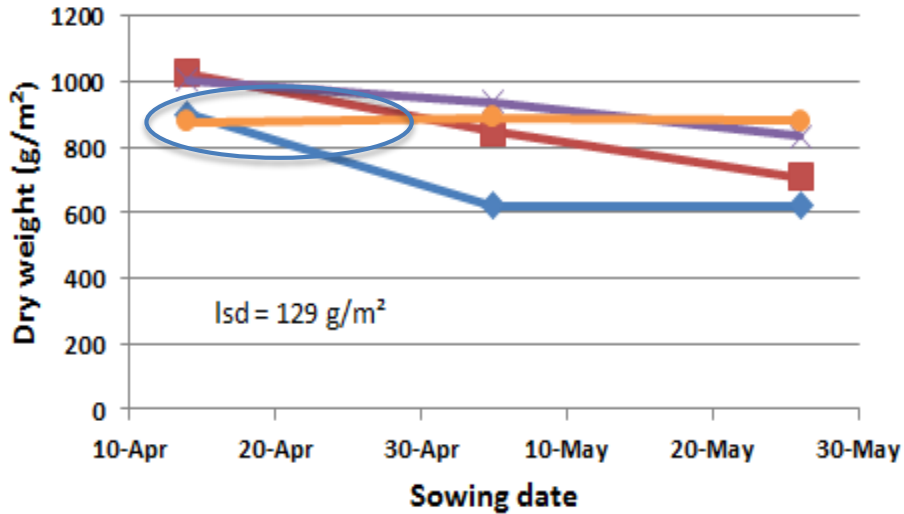
# Yield (t/ha) response of varieties to sowing time at EDRS, 2015



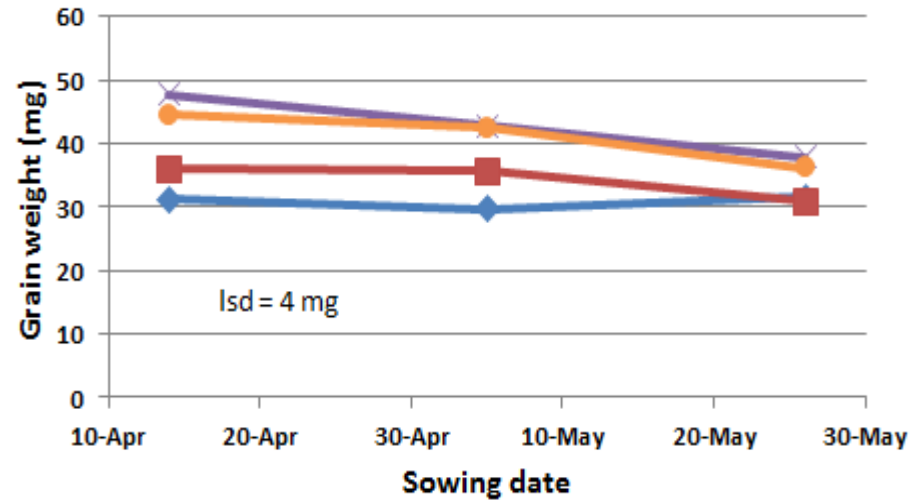
- Mace had little yield penalty with delayed sowing
- Winter wheat not competitive with Mace

# Why don't the longer maturing varieties and Mace do better?

## Dry weight and grain weight comparison at Mullewa, 2016



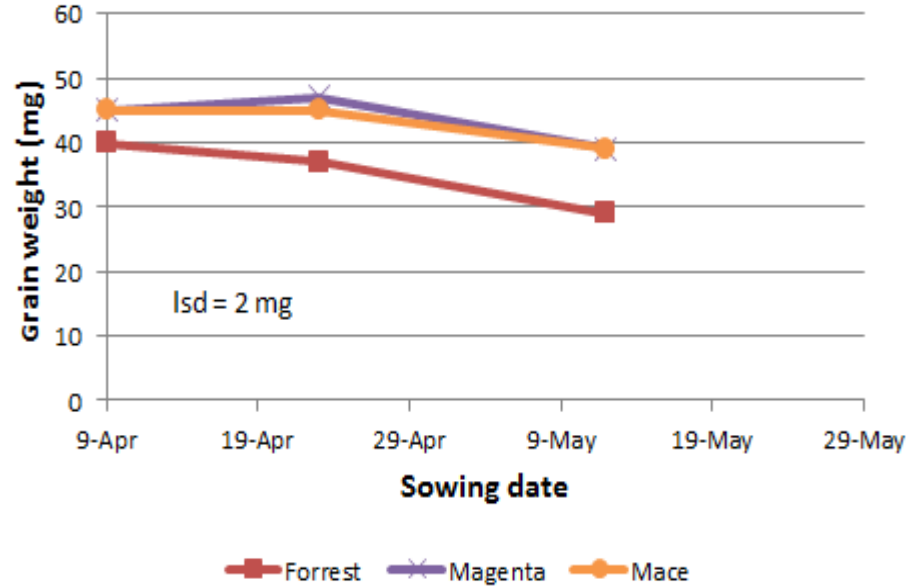
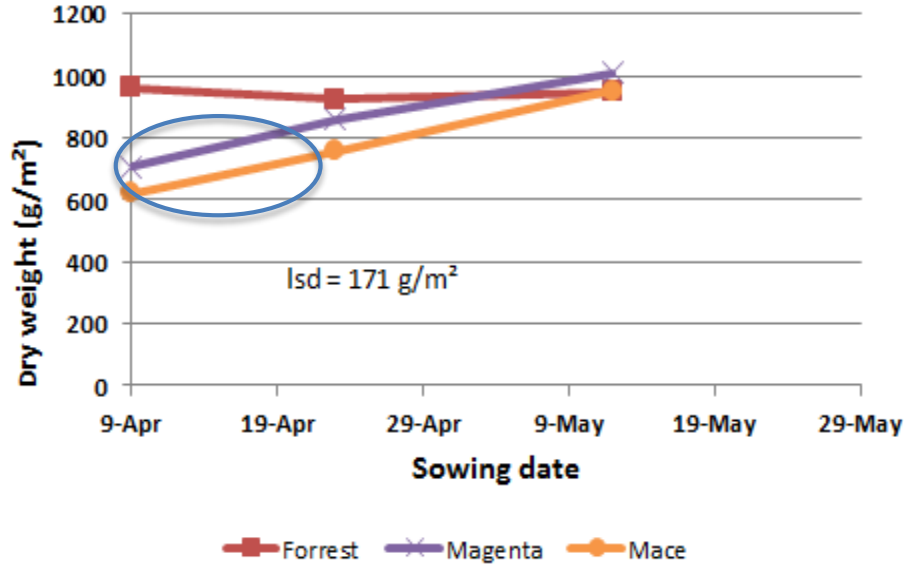
Wylah Forrest Magenta Mace



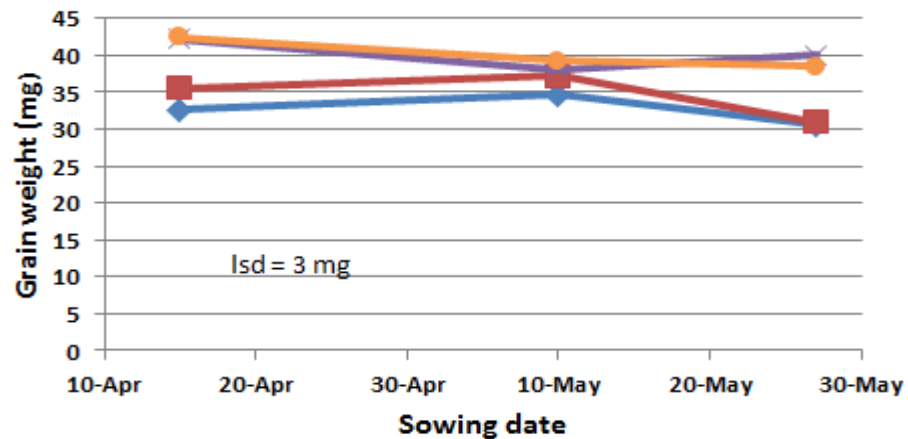
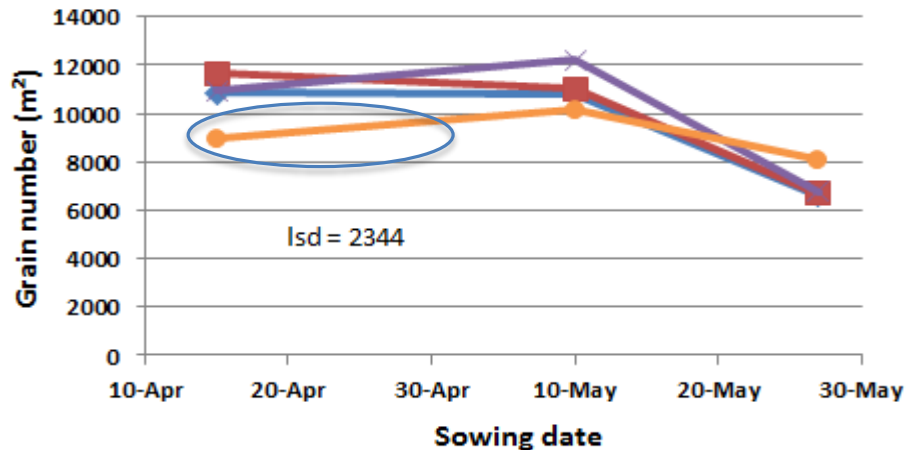
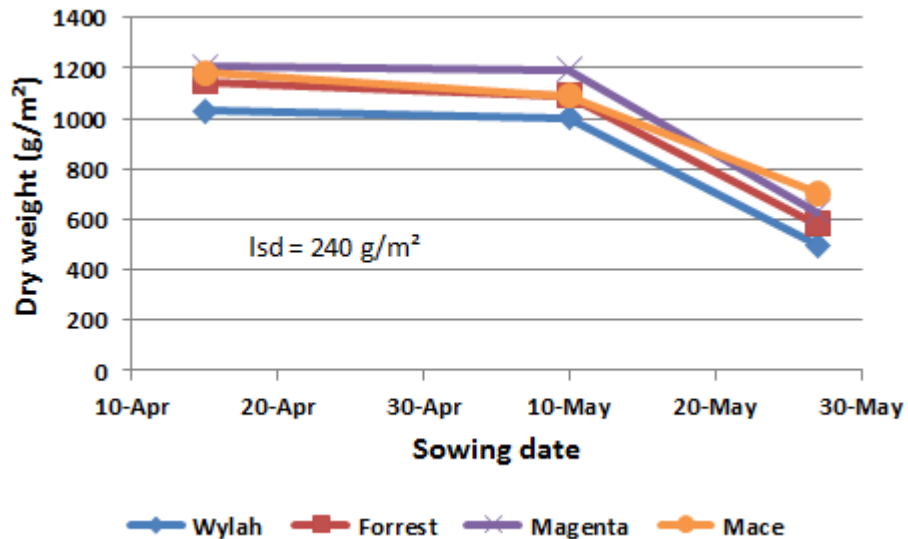
Wylah Forrest Magenta Mace

# Forrest did better at Yuna in 2015

## Dry weight and grain weight comparison



# Forrest better at Merredin in 2016, but not Mace.....



# Incidence of Blackpoint and downgrading of wheat varieties at the northern and southern locations in 2015 and 2016

Variety	2015			2016			2015			2016		
	Dandaragan			Mullewa			EDRS			EDRS		
	16-Apr	7-May	27-May	15-Apr	5-May	26-May	16-Apr	7-May	27-May	14-Apr	9-May	26-May
Cutlass	BP						BP			BP	BP	
Forrest	-	-	-				-	-	-			
Mace	BP											
Magenta	BP						BP			BP	BP	
Pascal	-	-	-				-	-	-		BP	
Trojan							BP					
Wylah	-	-	-				-	-	-	BP		
Yitpi	BP			BP			BP			BP	BP	BP
Zen	BP						BP			-	-	-



BP	GP
BP	Feed

# Gross margins of mid-April compared to early May sowings

(assuming \$240 for APW1 and \$215 for GP for both years, \* is downgraded to GP due to staining, frost distortion or screenings)

Year	Location	Mid-April Yield (t/ha)	Early May Yield (t/ha)	Mid- April GM (\$/ha)	Early May GM (\$/ha)
2015	Dandaragan	4.2* (Magenta)	5.2 (Mace)	\$903	<b><u>\$1248</u></b>
2016	Mullewa	3.6 (Magenta)	3.7 (Mace)	\$864	<b><u>\$888</u></b>
2016	Merredin	4.4 (Magenta)	4.2 (Magenta)	<b><u>\$1056</u></b>	\$1008
2015	Katanning	2.8* (Cutlass)	2.6* (Cutlass)	<b><u>\$602</u></b>	\$559
2016	Katanning	0.8* (Cutlass)	1.7 frosted	\$172	<b><u>\$408</u></b>
2015	EDRS	4.6* (Cutlass)	5.9 (Cutlass)	\$989	<b><u>\$1416</u></b>
2016	EDRS	4.6* (Cutlass)	4.7 (Cutlass)	\$989	<b><u>\$1128</u></b>



No single wheat variety stands out so the best wheat to sow EARLY could be.....

canola,  
barley  
or oats?

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# Acknowledgements

**Wheat Agronomy team**

**DAFWA**

**GRDC**

**Agronomy Reference Group**

**Growers**

# Thank you

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