The Southern NSW Cotton survey 2024/25 season

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Last season will be remembered as a very rewarding and profitable season with district yields averaging 12.5 b/ha with around 1 million bales produced in southern NSW.

The survey indicates average water use was 9.5 ML/ha or 1.66 ba/ML.

Area of cotton 2024 -25. 80,522 ha.

Lachlan 14,793 ha **Murrumbidgee** 56,790 ha **Murray** 8,939 ha.

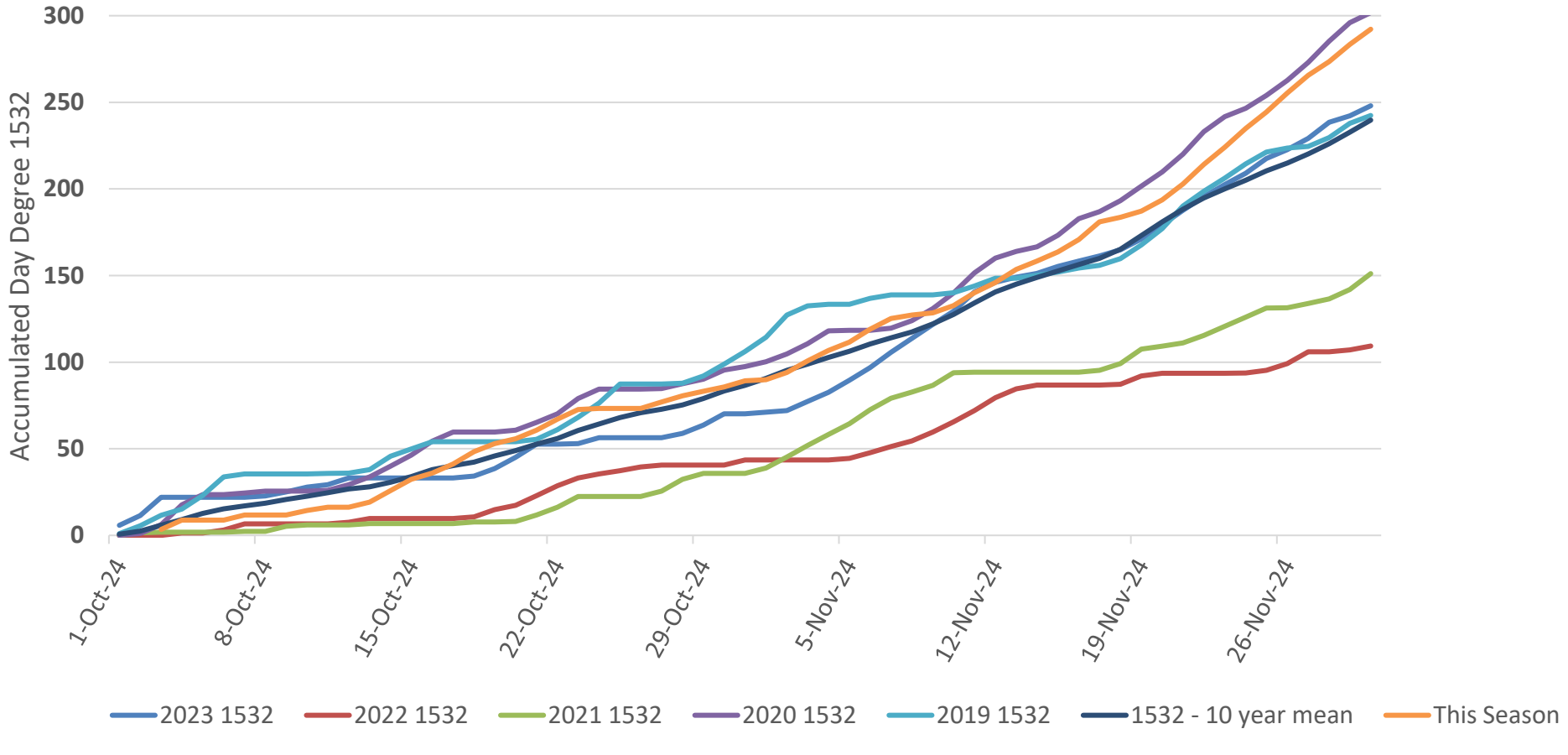
A few comments after pulling the survey together.

- Be ready for the planting window when it opens
- Make sure you include all variable costs in Gross margins.
- A season for excellent Nitrogen Fertiliser Use Efficiency.
- Bankless layouts are dominating best fields.
- Whitefly needs careful management in warm finishes.
- Problem weeds – control possible with XtendFlex technology
- Disease is an ongoing issue and long-term rotation choices are needed for sustainable cotton production.

Comments on the season

- A textbook start to the season, things were warm, and this maintained into early Nov.
- The hot and warmer season took a lot of people by surprise and some fields cut-out a week-10 days sooner than desirable in some instances, this wasn't the worst result as it meant picking could come sooner. We have been able to take advantage of the early harvest to plant canola in behind some cotton fields - a scenario that is not always possible in the south. This is a great benefit for our rotations, particularly in fields with BRR.
- See below

Establishment - Accumulated Day Degree
Griffith- DD1532



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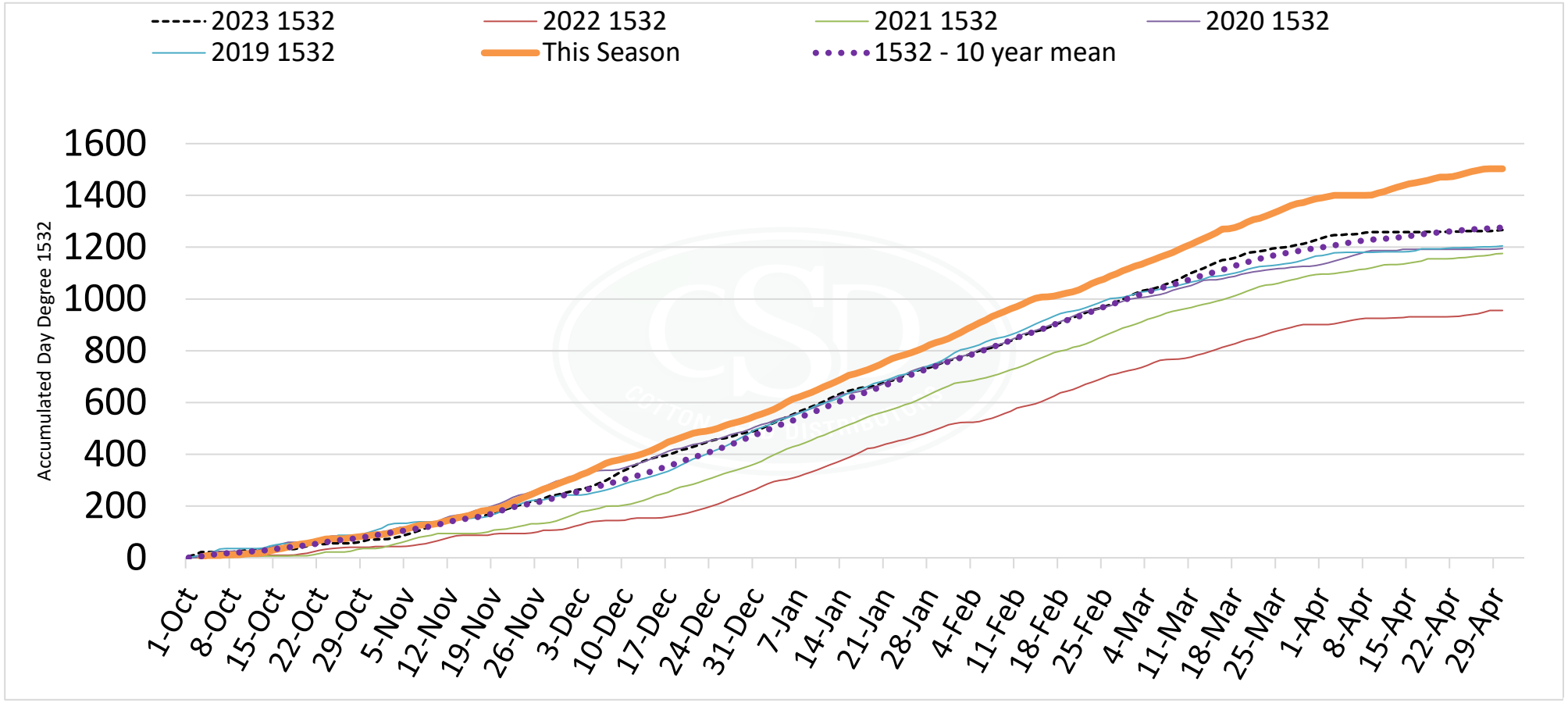
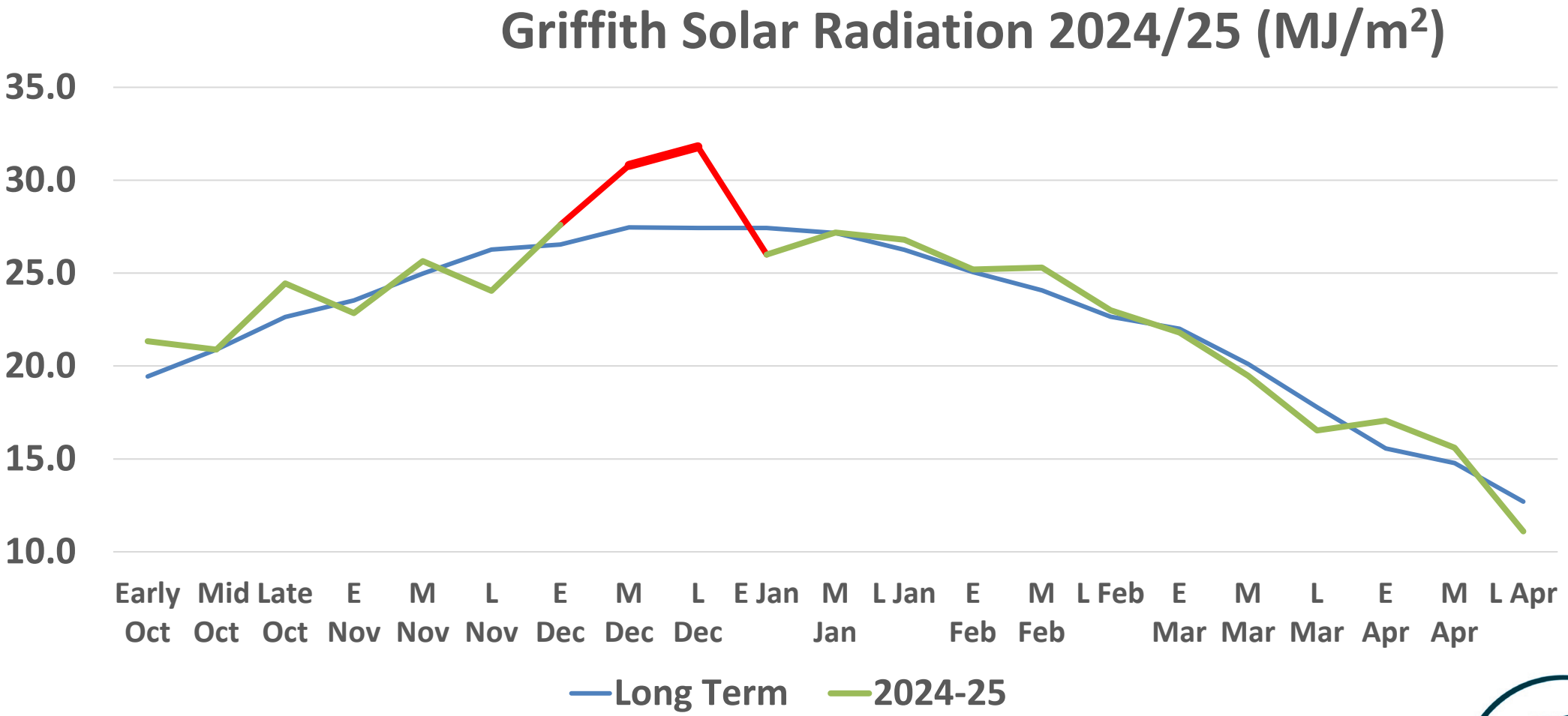
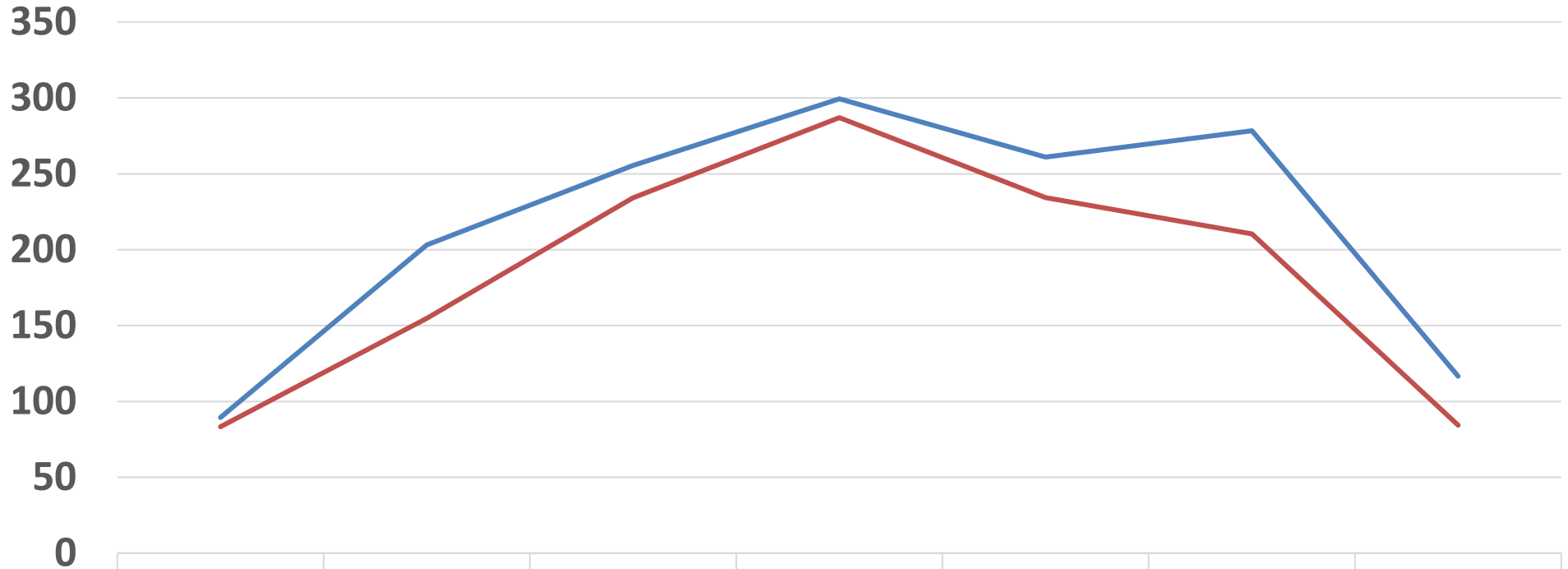
Day degrees Griffith 2024/25



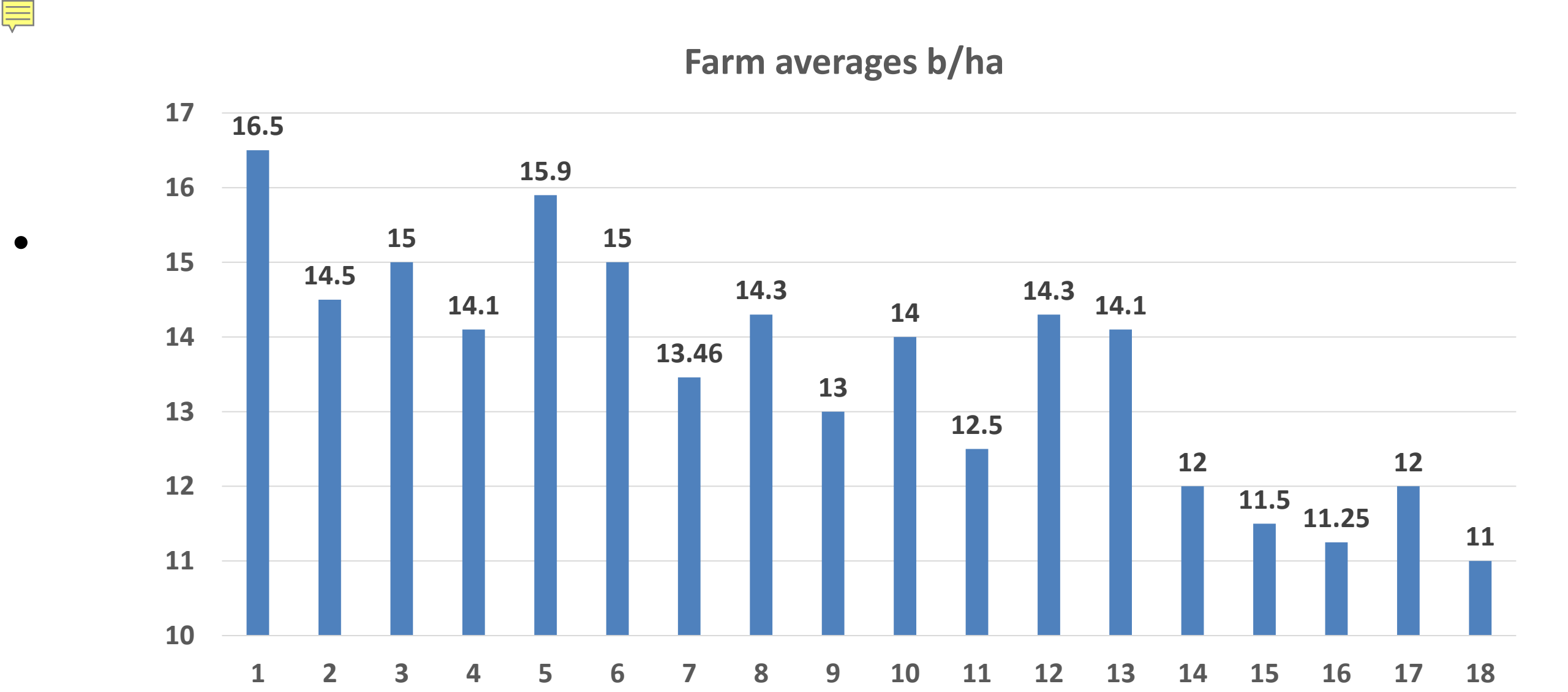

Griffith Solar Radiation 2024/25 (MJ/m²)
35.0
30.0
25.0
20.0
15.0
10.0
Early Oct
Mid Oct
Late Oct
E Nov
M Nov
L Nov
E Dec
M Dec
L Dec
E Jan
M Jan
L Jan
E Feb
M Feb
L Feb
E Mar
M Mar
L Mar
E Apr
M Apr
L Apr
Long Term
2024-25

Griffith monthly 1532 Day degrees 2024/25

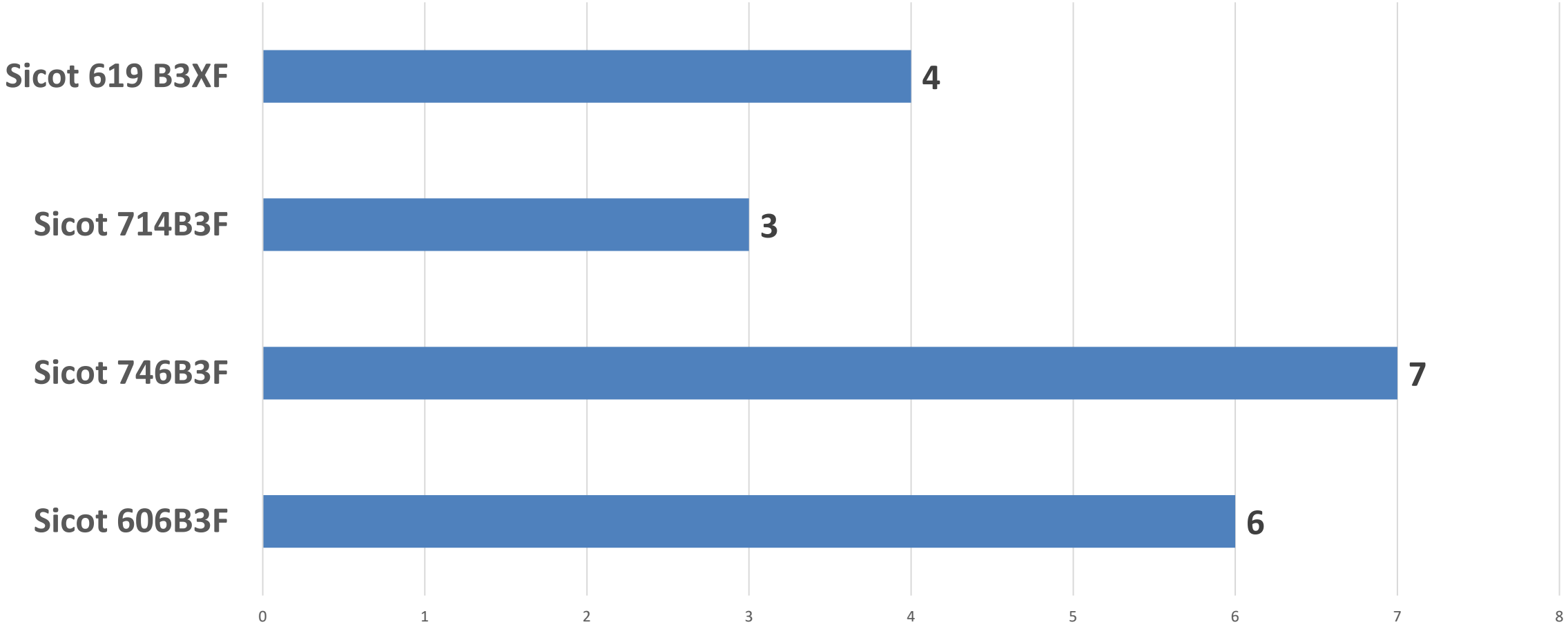


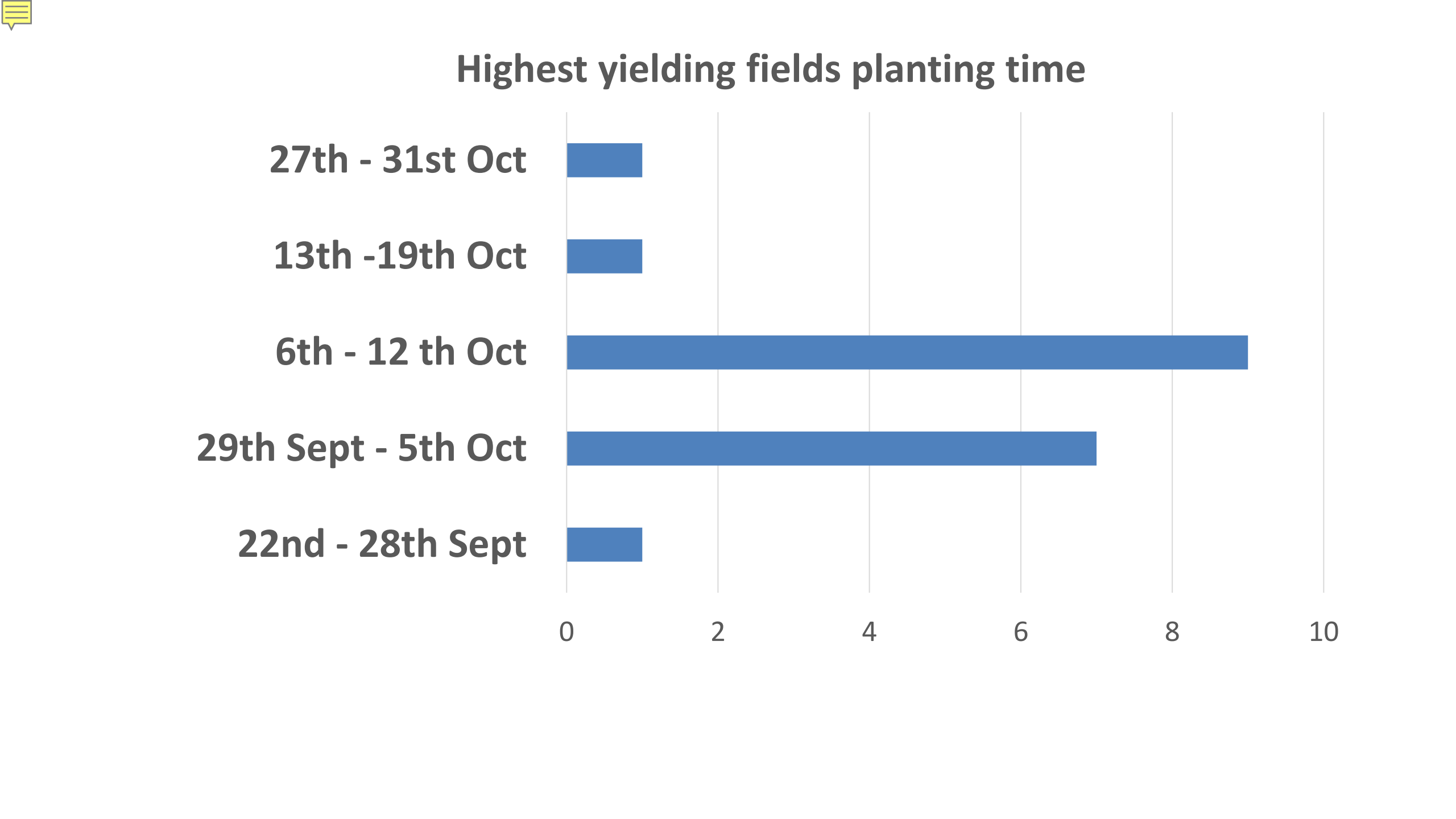
	October	November	December	January	February	March	April
2024/25	89.4	203.1	255.4	299.4	261.1	278.3	116.6
Average	83.3	154.8	234.2	287	234.3	210.4	84.3

Location					
GRIFFITH AIRPORT AWS, NSW					
	2024 - 2025	2023 - 2024	2022 - 2023	2021 - 2022	2020 - 2021
DD Base 12	2543.2	2286.6	1891.2	2055.8	2132.7
DD1532*	1503.2	1266.8	955.8	1175.4	1195.4
Cold Shock Day (≤11°C)	43	73	77	53	58
Days above 35°C	57	42	29	14	25
Verticillium Risk Day (Avg temp ≤21°C)	68	90	120	97	98
Days above 40°C	7	5	3	1	7
Total Rainfall (mm)	149.4	339.8	385.8	454.6	233.4
Total radiation (MJ/m^2)	4928.5	4764.1	4604.3	4480.2	4686.6
Average temperature (°C)	23.6	22	20.1	21.2	21.4


Farm averages b/ha
17
16
15
14
13
12
11
10
16.5
14.5
15
14.1
15.9
15
13.46
14.3
13
14
12.5
14.3
14.1
12
11.5
11.25
12
11
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18

Highest yielding field varieties.

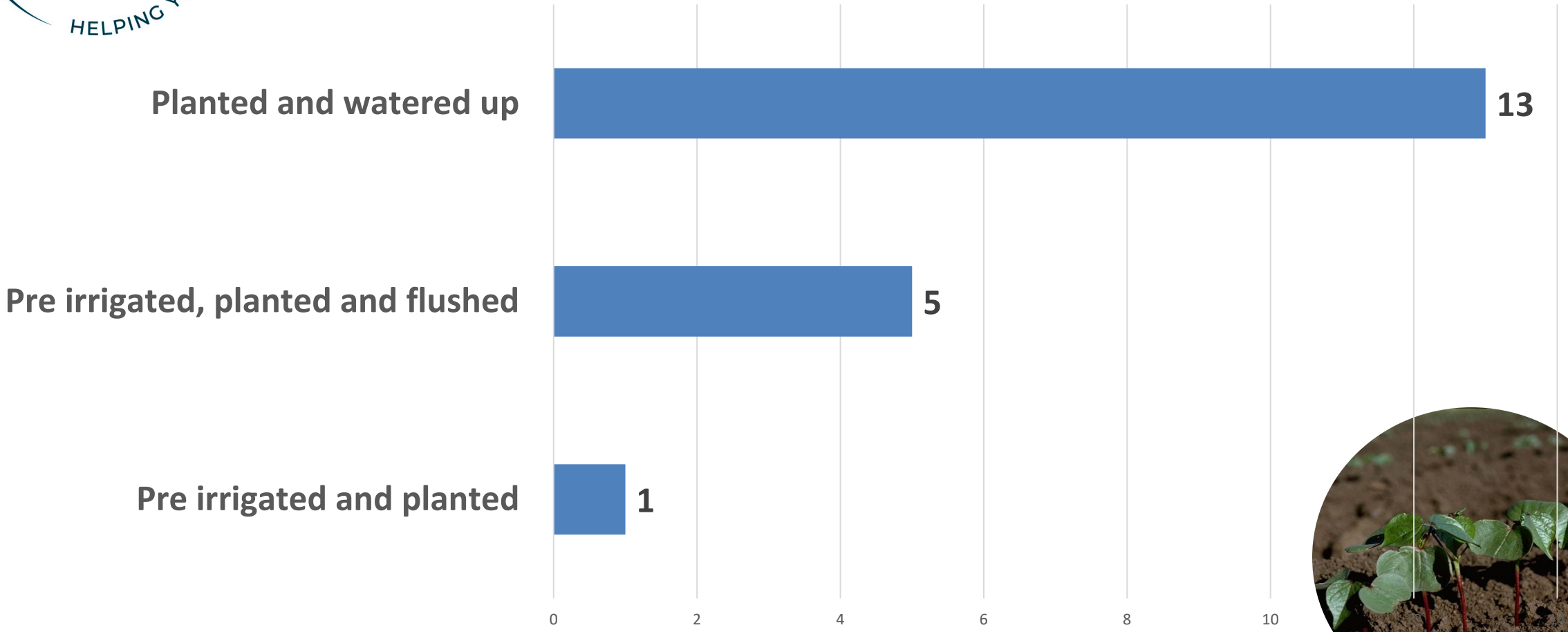



Highest yielding fields planting time
27th - 31st Oct
13th -19th Oct
6th - 12 th Oct
29th Sept - 5th Oct
22nd - 28th Sept
0
2
4
6
8
10

To what do you attribute the success of this field (consider things within your control)?

- Excellent start with minimal checks to growth through season.
- Rain germinated cotton just grows good.
- Warm finish to the season. Good bed preparation. Good water management.
- Good crop rotation, weed management and no water / heat stress events.

Planting water management



Gross margins 2025 (averages)

- Total Income/ha $ 8727
- Variable cost/ha $ 3890
- Gross margin/ha $ 4193
- GM/ML $ 419
- Average water use 10 ML/ha

Southern NSW Gross margins
Long term average

	Income /ha	Variable costs /ha	GM/ha	GM/Ml
Long term Average	$6480	$3,774	$2,707	$271
2025	$8727	$3,890	$4193	$419
% OF LTE	134 %	103 %	154 %	154 %

Nitrogen Fertiliser use efficiency

- NFUE - Rule of thumb – research asks to aim for 13 – 18 kg lint/unit N.
- More N does not always = more yield. Many factors determine yield. There has been a trend of lower applied N over the last few years.
- If your below 10 kg lint/unit N a soil constraint needs to be addressed, or irrigation management needs to be assessed.

Crop	Yield (b/ha)	Pre N	Planting N	In crop N	Total N applied	Kg Lint/N
1.	18	75	-	110	185	22.1
2	17.5	30	-	200	230	17.3
3.	17.5	108	50	92	250	15.9
4.	17	-	12	184	196	19.7
5.	16.5	50	-	200	250	15.0
6.	15.48	102	-	191	293	12.0
7.	15.2	197	-	92	289	11.9
8.	14.71	-	-	242	242	13.8
9.	14.3	-	-	220	220	14.8
10.	14.3	161	-	92	253	12.8
Ave	16				241	15.5

Water use

- Water use varied from 7.6 ML/ha to 13 ML/ha
- Average was 9.5 ML/ha

Crop	Yield (b/ha)	IRRIGATION System	ML applied # Estimated	Bales/ML
1	18	Bankless Channel zero grade 1.83m Beds	10	1.8
2	17.5	36 inch and camel hump Open furrows 1200 metre runs watering in 10 hrs	10	1.75
3	17.5	1m hills flat bankless	9.5	1.84
4	17	1m hills bankless	13	1.31
5	16.5	Bankless, 1m hills	8.5	1.94
6	15.48	1m hills	10.29	1.50
7	15.2	6 ft beds	9	1.69
8	14.71	1m hills bankless	9.7	1.52
9	14.3	1 metre hills in bankless channel setup	9.1	1.57
10	14.3	Siphon 1m hills 300m runs	8.7	1.64

Crop	Yield (b/ha)	Mepiquat chloride management
1	18	10-12-24 10ml/ha 20-1-25 50ml/ha.
2	17.5	15ml/ha 20/12/24 & 250ml/ha 21/1/25.
3	17	Cutout 20 Jan @ 200mls/Ha Follow up 16 Feb @ 100mls/Ha .
4	16.5	First week of Jan 35ml. 15th Jan 25ml 27th 200 ml cut out pass .
5	16.5	15 node - 25ml 18 node - 35 ml

Crop	Yield (b/ha)	Mepiquat chloride management
6	15.5	9th Dec 50ml 20th Dec 30ml 31st Dec 25ml 20th Jan 300ml cutout.
7	15.48	Blanket Mepiquat @15ml/ha on 9th Dec @14 nodes The crop cut out about 1-2 weeks sooner than I would've liked.
8	14.71	25ml 10/12, 25ml 24/12, 50ml 15/1, 250ml 24/1.
9	14.3	VR Mepiquat 15mls/ha up to 35mls/ha on 23/12/24.
10	14.3	Mid-season 5th Jan 30ml/ha. Cut out across all 200ml/ha 26 Jan.

Insect issues?

- Comments below reflect in general a low-pressure insect year except
- Whitefly issues with the warmer end of the season.
- Most at 2 to 3 insecticide applications

Disease comments

- COME CLEAN, GO CLEAN

If it wasn't for the warmer start, things would not have been as kind in diseased fields. Seed Vigour/Quality was much better this year.

Verticilium wilt is increasing

See comments below

Fibre quality

See comments below

What is your main problem weed?

- Ryegrass
- Fleabane
- Barnyard grass
- Feathertop Rhodes grass
- Options for all made easier with Xtendflex technology.

- See comments for tactics

Biggest challenge to profitability

- Water availability and affordability 
- Growing costs rising
- Black root rot

- See comments below

Management changes?

No cotton - no water.

Still planning to go hard with 606 area while we can.

Planning on using more manure and gypsum in our poorer quality soils.

Back to our normal rotation - 1yr in 1 yr out with wheat rotation.

Just hoping for rain/allocation to even plant cotton.

Row spacings.

Technology changes?

Considering …

- More variable rate. First year with variable rate application of lime to try and even out lower yielding areas
- Camera Sprayer
- Will be using the yield maps from the John Deere picker data to improve our lower yielding areas

Research areas /information/skills

- Black Root Rot !!!!!!
- Would like more research on cotton seed varieties that can handle the cooler conditions in the south.
- 619 size seed with better disease package (Wilts).
- Also, mepiquat application rates and timing for yield and maturity for quality of lint.

A big thank you to all those that have provided data for this survey.

- The strength of this survey comes from participation and over the years to see trends and benchmark performance.
- If you have any suggestions for questions to include just let me know

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