CottonInfo **Information** *when you need it*

Darling Downs crop check

DATE – Monday 30th January 2023

AREA	Darling Downs
Crop Stage	• 4 nodes to boll fill • First flower/first bolls • 12 – 21 nodes • 8-26 nodes
Irrigation	• Currently underway • Flood currently has had one with the second due now • Overheads are running constantly • 1-2 waterings • Some may run a little short
Insects/Beneficial	• Not too bad. The odd mirid around, GVB and stainers • Good numbers of ladybeetles, spiders and damsel bugs • Lady bugs seem to be controlling Aphids • Aphids, mites, mirids, GVB's and beneficials
Weeds	• Fleabane causing problems • Low to moderate pupoulations in fields • Feathertop and vines • Barnyard grass • Getting under control. Just older fleabane causing issues
Disease	• Fusarium and Vert • Bunch top has been detected on the Downs • Bunchtop in areas from aphid hotspots

CottonInfo **Information** *when you need it*

Darling Downs crop check

Comments	• Irrigated cotton starting to pick up and most flowering now. A long way to go yet • We need rain and a long summer • Rain needed for dryland crops • Why has some cotton been so slow this season??

DALBY AIRPORT

Download

Date range: 10 October, 2022 to 30 January, 2023 (113 days).

Summary | Seasonal comparison

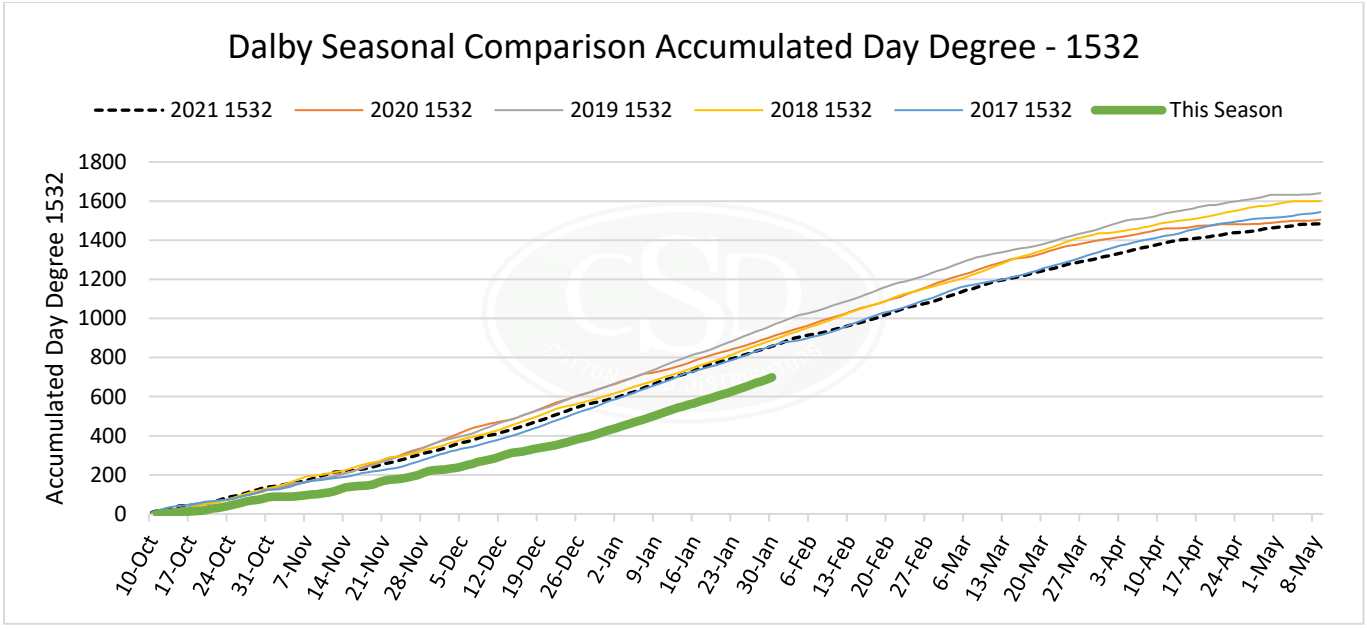
	2022	2021	2020	2019	2018	10 year mean
Base 12	1169.6	1300.7 ▲	1415.3 ▲	1562.8 ▲	1380.4 ▲	1384.2 ▲
DD1532*	698.8	857.3 ▲	906.7 ▲	964.0 ▲	889.6 ▲	879.5 ▲
Cold shock days (≤ 11°C)	23	8 ▼	9 ▼	13 ▼	4 ▼	9.9 ▼
Days above 36°C	4	1 ▼	20 ▲	41 ▲	16 ▲	15.9 ▲
Nights above 25°C	0	0	0	0	0	0.2 ▲
Days above 40°C	0	0	4 ▲	3 ▲	0	1.4 ▲
Total rainfall (mm)	127.2	459.8 ▲	225.8 ▲	119.8 ▼	295.0 ▲	201.0 ▲
Total radiation (MJ/m^2)	2342.7	2251.0 ▼	2431.5 ▲	2751.9 ▲	2605.6 ▲	2317.9 ▼
Average temperature (°C)	22.0	23.4 ▲	24.4 ▲	25.6 ▲	24.2 ▲	24.1 ▲

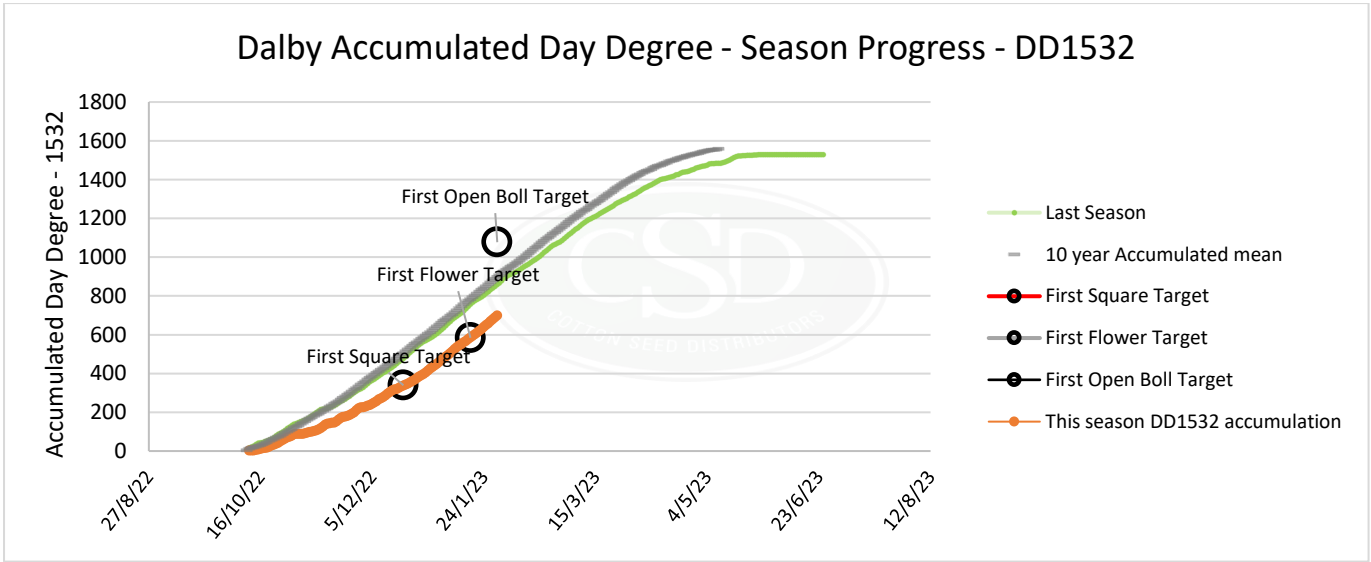
* Experimental calculation.

Climate observations and data are obtained via the State of Queensland SILO patched point dataset.

CottonInfo **Information** *when you need it*

Darling Downs crop check





CottonInfo **Information** *when you need it*

Darling Downs crop check

BROOKSTEAD POST OFFICE

Download

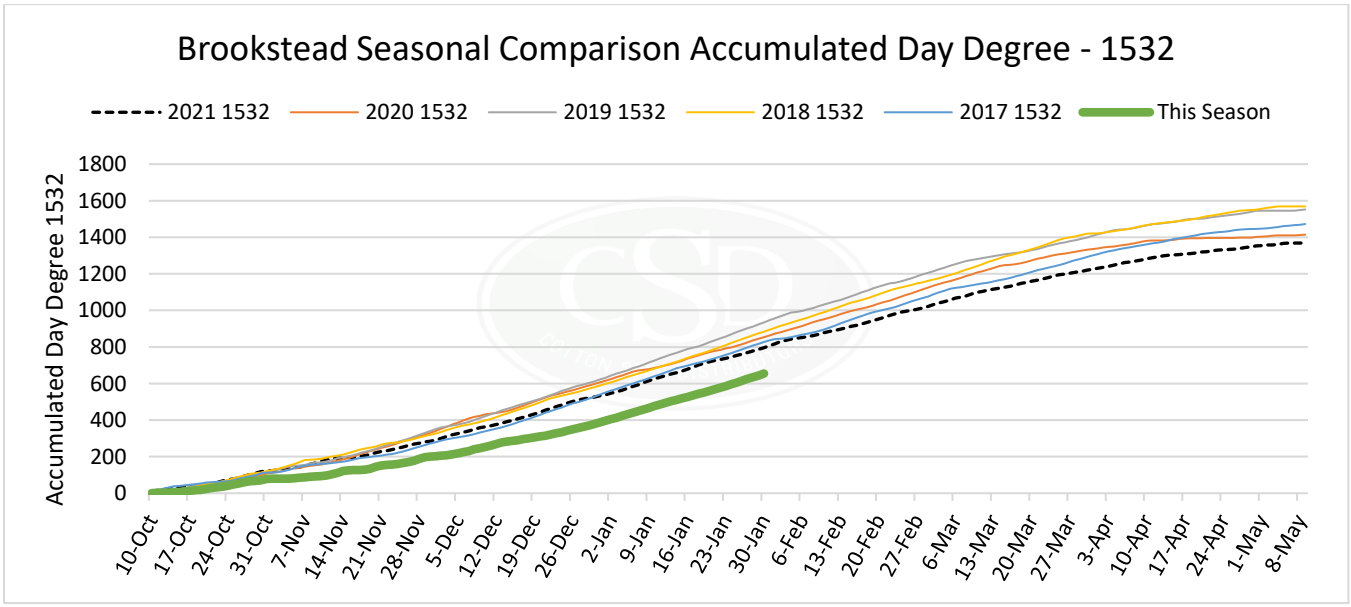
Date range: 10 October, 2022 to 30 January, 2023 (113 days).

Summary | Seasonal comparison

	2022	2021	2020	2019	2018	10 year mean
Base 12	1117.5	1230.4 ▲	1339.5 ▲	1503.5 ▲	1369.8 ▲	1328.2 ▲
DD1532*	654.5	796.4 ▲	853.9 ▲	934.9 ▲	884.0 ▲	842.0 ▲
Cold shock days (≤ 11°C)	29	9 ▼	8 ▼	16 ▼	4 ▼	10.8 ▼
Days above 36°C	3	0 ▼	12 ▲	34 ▲	17 ▲	12.6 ▲
Nights above 25°C	0	0	0	0	0	0.1 ▲
Days above 40°C	0	0	1 ▲	1 ▲	0	0.7 ▲
Total rainfall (mm)	231.3	486.2 ▲	223.2 ▼	155.4 ▼	264.8 ▲	212.1 ▼
Total radiation (MJ/m^2)	2361.0	2239.1 ▼	2454.4 ▲	2766.9 ▲	2633.1 ▲	2327.1 ▼
Average temperature (°C)	21.6	22.8 ▲	23.7 ▲	25.1 ▲	24.1 ▲	23.6 ▲

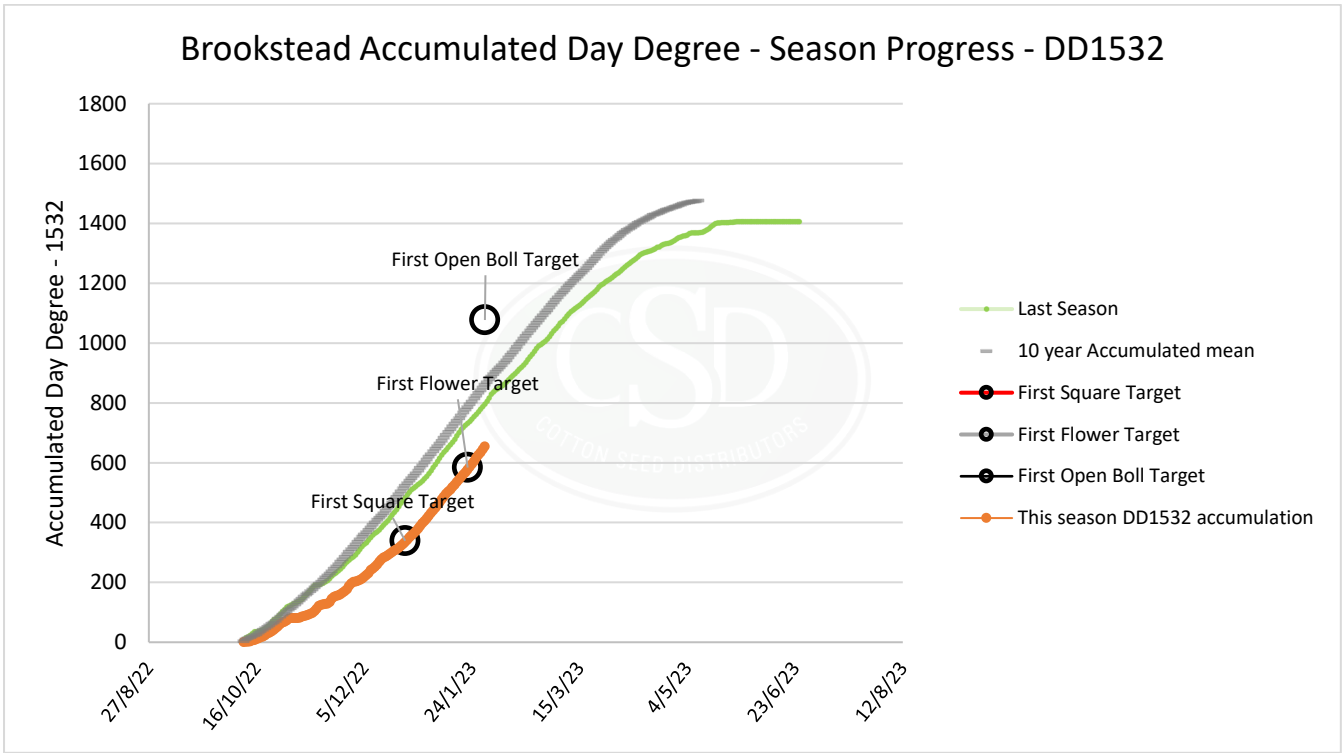
* Experimental calculation.

Climate observations and data are obtained via the State of Queensland SILO patched point dataset.



CottonInfo **Information** *when you need it*

Darling Downs crop check



Seasonal Day Degree and historical data is sourced from Cotton Seed Distributors Day Degree Calculator found at www.csd.net.au/ddc. For more specific day degree and crop management detail for your farm, field and variety check out CottonTracka® at www.cottontracka.com.au

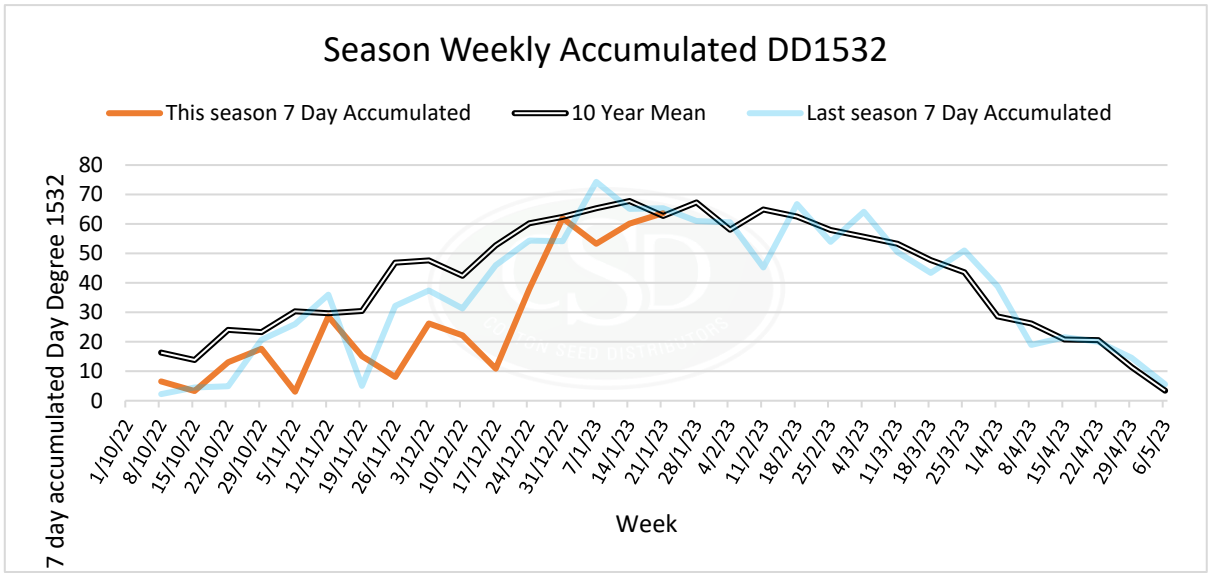
CottonInfo **Information** *when you need it*

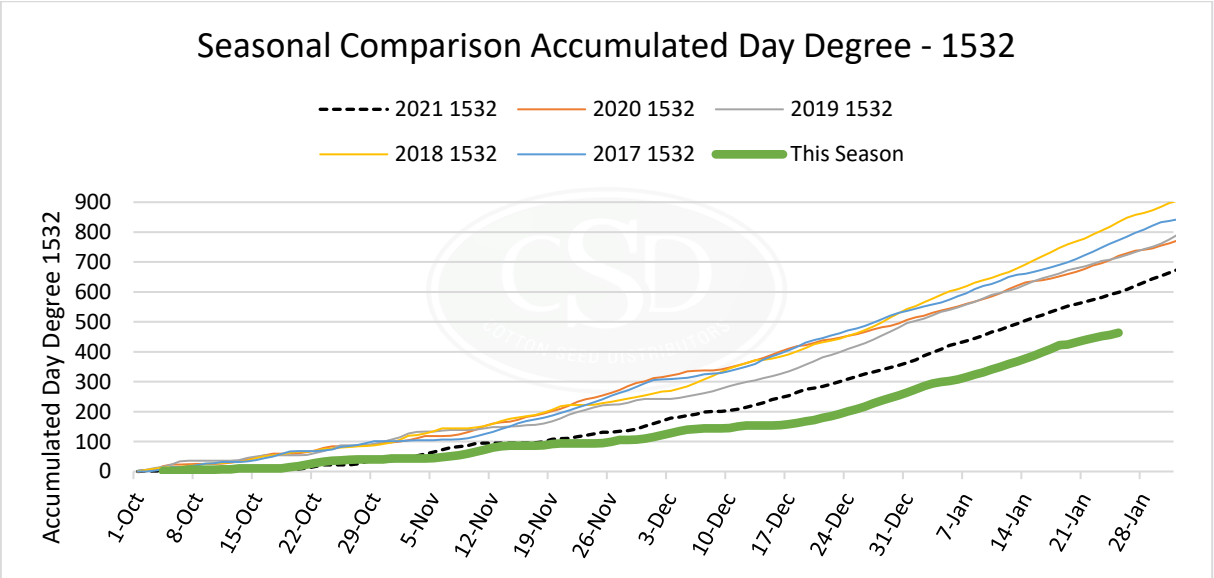
Southern NSW crop check

	Southern Valleys
Crop Stage	A lot of crops at different stages of growth from 12 to 20 nodes Small delayed late crops will struggle to get to 16 nodes. Most at 60 to 80 % row closure Mepiquat rates vary widely depending on canopy size, soil type and flower development. Cut out rates vary from 150 to 190 ml/ha and happening now till early Feb.
Irrigation	3rd to 4th Irrigation Petioles indicate most crops have sufficient Nitrogen
Insects/Beneficials	A diverse range of insects around Pockets of Green Vege Bug showing up in a lot of crops Low mirid pressure Low levels of Apple Dimple Bug No insect issues.
Weeds	Smaller canopy resulting in weed pressure continuing. A lot of milk thistle around Tidy up sprays for cat heads and Barnyard grass
Disease/Environmental	Crops with early season disease are delayed in development.
Comments	Widespread damage in some areas from Group I off target drift. Gogelderie/Whitton/Darlington Point/Coleambally widespread drift damage from minor to severe. Big impact on small crops Some crops have incurred four drift events.

CottonInfo **Information** *when you need it*

Southern NSW crop check





Southern NSW crop check

Report incidents to Cotton Australia

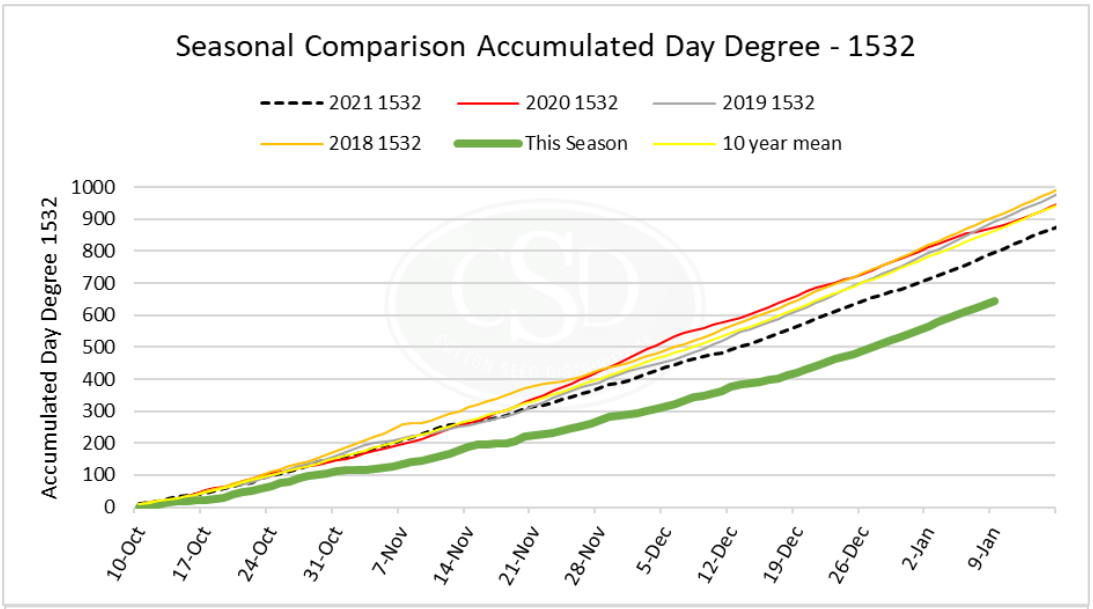
It is critical that growers report any incident, or suspected incident, as soon as it occurs to their closest Cotton Australia Regional Manager and fill out a Cotton Australia Spray Drift Incident Report. It is essential that incidents are properly logged and investigated, and Cotton Australia has a straightforward process that is simple and confidential. It is important that we know if incidents occur in order to make representations on behalf of the industry. While Cotton Australia cannot take legal action, provide professional advice or submit adverse experience reports to regulatory authorities, we can point growers in the right direction and tailor spray drift awareness initiatives into key areas based on feedback received by growers.

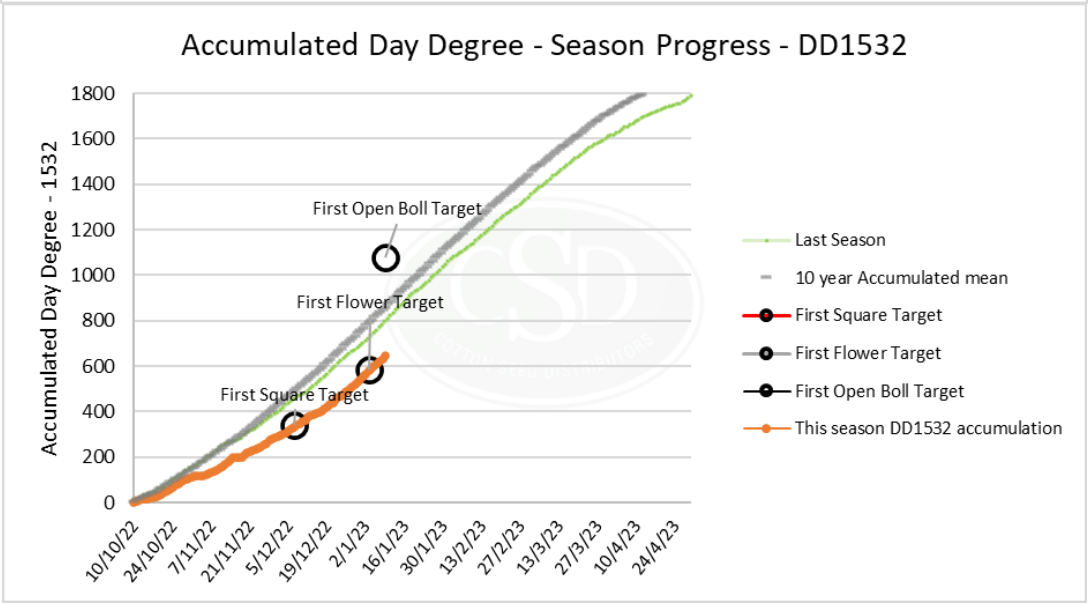
NSW growers whose crops have been damaged by off-target spray drift should also report it to EPA Environment Line: 131-555

CottonInfo **Information** *when you need it*

Balonne crop check

DATE – 14 January 2023

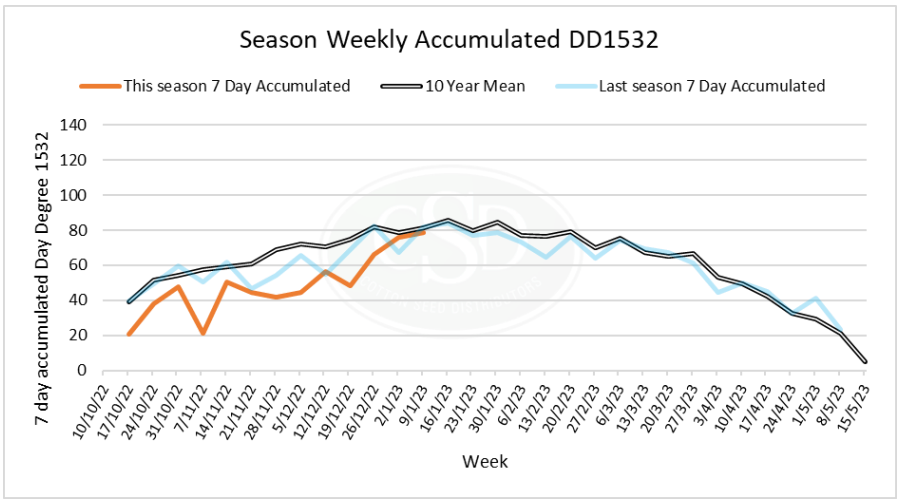




Seasonal Day Degree and historical data sourced from Cotton Seed Distributors Day Degree Calculator found at www.csd.net.au/ddc. For more specific day degree and crop management detail for your farm, field and variety check out CottonTracka® at www.cottontracka.com.au

CottonInfo **Information** *when you need it*

Balonne crop check



ST GEORGE AIRPORT

Download

Date range: 10 October, 2022 to 12 January, 2023 (95 days).

Summary | Seasonal comparison

	2022	2021	2020	2019	2018	10 year mean
Base 12	1084.1	1258.3 ▲	1380.9 ▲	1496.7 ▲	1432.3 ▲	1363.9 ▲
DD1532*	680.4	832.9 ▲	903.7 ▲	929.9 ▲	944.7 ▲	880.9 ▲
Cold shock days (≤ 11°C)	8	5 ▼	3 ▼	10 ▲	1 ▼	5.2 ▼
Days above 36°C	9	16 ▲	30 ▲	49 ▲	37 ▲	29.6 ▲
Nights above 25°C	2	2	8 ▲	20 ▲	11 ▲	9.0 ▲
Days above 40°C	0	1 ▲	9 ▲	19 ▲	6 ▲	7.7 ▲
Total rainfall (mm)	165.8	191.4 ▲	124.7 ▼	20.3 ▼	103.2 ▼	111.2 ▼
Total radiation (MJ/m^2)	2109.3	2138.3 ▲	2163.3 ▲	2430.6 ▲	2309.2 ▲	2071.5 ▼
Average temperature (°C)	23.3	25.2 ▲	26.5 ▲	27.6 ▲	27.1 ▲	26.3 ▲

* Experimental calculation.

Climate observations and data are obtained via the State of Queensland SILO patched point dataset.

CottonInfo **Information** *when you need it*

Balonne crop check

Day degree accumulation has improved in recent weeks as can be seen in the weekly accumulation graph, however it remains behind recent seasons and the 10-year average. Cold shocks (8) are above the 10-year average (5.2) and average temperature for the season is 3°C below the 10 year average. Solar radiation accumulation remains above the 10-year average after being below it in mid-November. Warming conditions, the absence of heat shocks and plentiful water is seeing some crops starting to grow rapidly. The BOM temperature outlook is suggesting temperatures will be more normal through until the second week of February with potential for warmer than normal temperatures from mid-Feb into March.

AREA	Balonne
Crop Stage	• Crops range from around 4 nodes to 21 nodes with some well into flowering
Irrigation	• Water supplies sufficient to get most crops through even if no more rain received. • Most crops have had 4-5 irrigations
Insects/Beneficials	• Stink beetles have become more prominent requiring control measures in some cases. Access to suitable products reported as challenging. • Mirids generally low • Helicoverpa egg numbers low to moderate • SLW minimal
Weeds	• OTT sprays largely done and weeds under control.
Disease	• Fusarium symptoms prominent in affected crops however warmer weather is seeing some starting to grow and come through the symptoms
Environment/Drift	• Minor drift symptoms evident in all late cotton from St George and south in the region.
Comments	• Crops kicking away with warmer conditions and entering critical growth phases.

Seasonal Day Degree and historical data is sourced from Cotton Seed Distributors Day Degree Calculator found at www.csd.net.au/ddc. For more specific day degree and crop management detail for your farm, field and variety check out CottonTracka® at www.cottontracka.com.au

CottonInfo **Information** *when you need it*

Gwydir crop check

13th January 2023

Day Degree

Table 1: **Seasonal Information based on 10th November planting date (Source: Cotton Seed Distributors)**

	2022	2021	2020	2019	2018	10 year mean
Base 12	719.5	829.9 ▲	928.0 ▲	1043.6 ▲	922.2 ▲	910.2 ▲
DD1532*	451.2	539.9 ▲	611.0 ▲	650.8 ▲	610.4 ▲	591.2 ▲
Cold shock days (≤ 11°C)	9	5 ▼	1 ▼	3 ▼	1 ▼	2.6 ▼
Days above 36°C	2	11 ▲	20 ▲	44 ▲	19 ▲	20.3 ▲
Nights above 25°C	0	0	1 ▲	14 ▲	1 ▲	3.5 ▲
Days above 40°C	0	0	6 ▲	13 ▲	3 ▲	4.1 ▲
Total rainfall (mm)	76.4	198.0 ▲	190.4 ▲	35.4 ▼	74.2 ▼	89.1 ▲
Total radiation (MJ/m^2)	1520.4	1413.6 ▼	1415.4 ▼	1648.1 ▲	1608.5 ▲	1407.5 ▼
Average temperature (°C)	23.2	25.0 ▲	26.7 ▲	28.5 ▲	26.6 ▲	26.4 ▲

* Experimental calculation.

Climate observations and data are obtained via the State of Queensland SILO patched point dataset.

Accumulated day degree 'targets' after seed imbibed

Cotton development	DD Base 12** (Industry standard)	Experimental DD 1532
Emergence	80	50
First square	505^	339
First flower	777^	584
First open boll	1527^	1077

^ Please note that DD Base 12 targets to first square, first flower and first open boll will increase by 5.2 DD for EACH cold shock event - please adjust your target accordingly.

Targets relate to specific developmental events.

** **Source:** Australian Cotton Production Manual 2019 (page 8).

Gwydir crop check

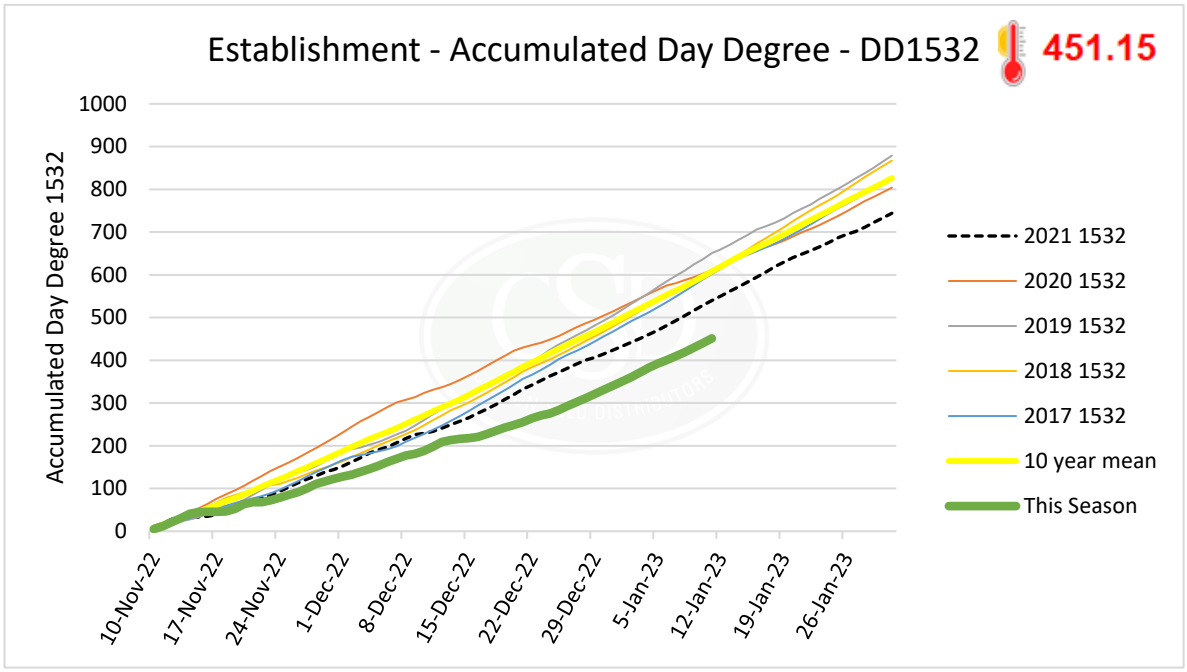


Figure 1: Day Degree comparison using the DD 1532, planting date 10/11/22 Source www.csd.net.au/ddc

AREA	Gwydir Valley
Crop Stage	**Irrigated Cotton:** • Irrigated: 4 – 19 nodes and 8-9 NAWF • Dryland: 1-15nodes, big spread with split germinations and planting dates. *"Retentions are good with reduced pest pressure"* *"Irrigated cotton is spread from early squaring to early flowering".* *"Dryland - 6 nodes to early flowering. Majority early to mid squaring"* *"Some dryland paddocks have soggy feet and struggling with vigour and low vegetative growth"*
Irrigation	• Mostly up to 3rd irrigations. • Using around 0.7-1 ML per irrigation.

CottonInfo **Information** *when you need it*

Gwydir crop check

Insects/Beneficial	•Mirids low levels •Two Spotted Mites – low to moderate, some hotspots. Sprays occuring •Low level Green Vege Bugs and shield bugs •Seeing shield bugs/ vege bugs in fields close to rivers or native vegetation. •Low levels and odd hot spot of Green Peach & Cotton aphid. *"Spiders increasing, lady bird showing up. Mites present in most crops, some in high numbers, thrips helping, mirids building slowly"*
Weeds	• Fleabane, Barn Yard Grass, Feather Top Rhodes Grass, Peachvine and MilkThistle • low/moderate starting in crop herbicides I saw an interesting post on Twitter about Paraquat resistant fleabane in Sth NSW. Is anyone having survivors after using in our district? If you do let CottonInfo or Bayer know and we can arrange to get the seed tested. https://twitter.com/agrobaz/status/1610194388592005120?s=20&t=0pjsq3d2dMzSC-5f6W_P4A Here is a link to a NSW DPI paper on that topic: https://www.researchgate.net/publication/354104722_Paraquat_resistance_and_hormetic_response_observed_in_Conyza_sumatrensis_Retz_E_Walker_tall_fleabane_in_Australian_cotton_cropping_systems
Spray Drift	• Very disappointing to see so many fields with drift damage. • Estimate 30% moderate – high damage • Remainder will grow through, but significant concern if we were to get a 2nd hit! *"Low/moderately doses of 2,4-D assume inversion drift. Worst in the NE. Frustrating more than damaging thankfully".* *"All farms all fields"* *"Post Christmas nearly every paddock had light drift of phenoxy"* • WAND Inversion towers for identifying "Hazardous Inversions" are up and running https://app.wand.com.au/ • Use Satacrop to identify sensitive crops areas before spraying https://satacrop.com.au

CottonInfo **Information** *when you need it*

Gwydir crop check

Disease	• Wilt diseases showing up. • If you don't know what it is ring CottonInfo and get it sampled for identification – know what wilt you are managing. *"Early plant is particularly bad for vert"*
Comments	

Gwydir Area Wide Management Meetings

Date: Wednesday 18th January 2023
Time: 3:30 – 4:30pm
Place: Mallawa Racecourse. Directions: https://goo.gl/maps/qtL1UmqSsxZKwp649

And

Date: Thursday 19th January 2023
Time: 7:30 – 8:30pm
Place: Midkin, Ashley. Directions: https://goo.gl/maps/eyWTPRR58njPs78L8

CottonInfo **Information** *when you need it*

Gwydir crop check

26th January 2023

Day Degree

Table 1: **Seasonal Information based on 10th November planting date (Source: Cotton Seed Distributors)**

	2022	2021	2020	2019	2018	10 year mean
Base 12	914.2	1031.4 ▲	1106.4 ▲	1252.2 ▲	1178.6 ▲	1123.3 ▲
DD1532*	583.3	675.4 ▲	727.0 ▲	789.0 ▲	774.0 ▲	730.5 ▲
Cold shock days (≤ 11°C)	9	5 ▼	1 ▼	3 ▼	1 ▼	2.6 ▼
Days above 36°C	4	17 ▲	22 ▲	49 ▲	31 ▲	26.9 ▲
Nights above 25°C	0	0	1 ▲	15 ▲	4 ▲	4.7 ▲
Days above 40°C	0	0	6 ▲	14 ▲	9 ▲	5.9 ▲
Total rainfall (mm)	81.0	254.2 ▲	211.4 ▲	140.0 ▲	79.0 ▼	111.5 ▲
Total radiation (MJ/m^2)	1823.8	1716.0 ▼	1737.3 ▼	1913.6 ▲	1936.0 ▲	1693.5 ▼
Average temperature (°C)	23.8	25.4 ▲	26.5 ▲	28.4 ▲	27.5 ▲	26.7 ▲

* Experimental calculation.

Climate observations and data are obtained via the State of Queensland SILO patched point dataset.

Accumulated day degree 'targets' after seed imbibed

Cotton development	DD Base 12** (Industry standard)	Experimental DD 1532
Emergence	80	50
First square	505^	339
First flower	777^	584
First open boll	1527^	1077

^ Please note that DD Base 12 targets to first square, first flower and first open boll will increase by 5.2 DD for EACH cold shock event - please adjust your target accordingly.

Targets relate to specific developmental events.

** **Source:** Australian Cotton Production Manual 2019 (page 8).

Gwydir crop check

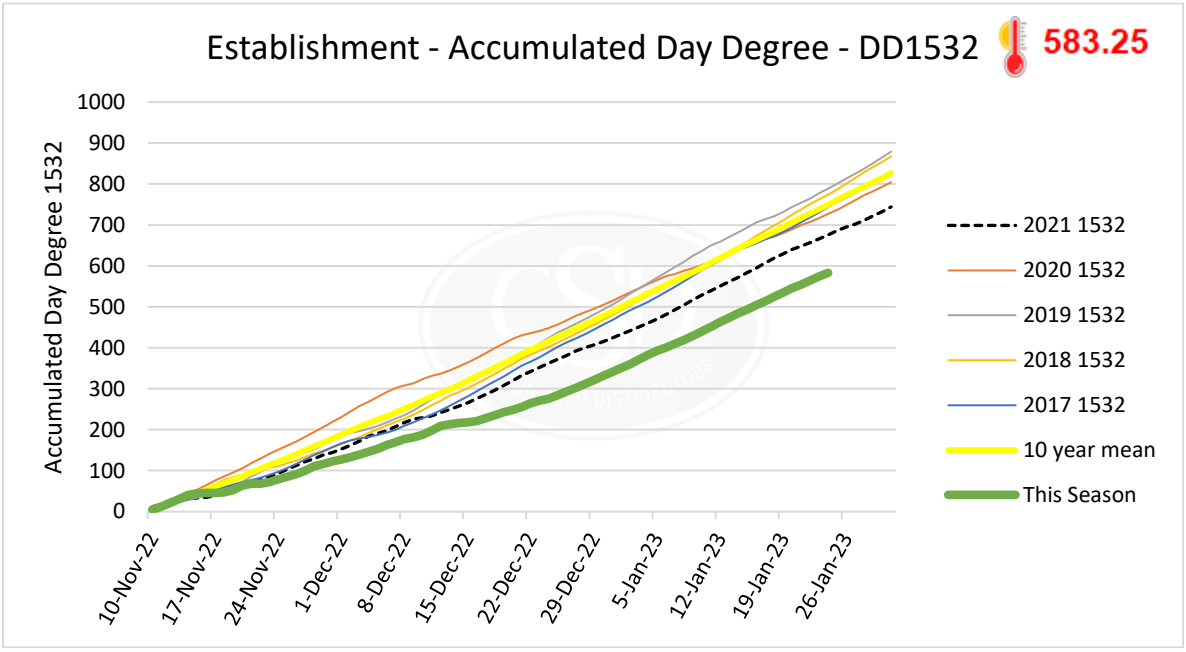


Figure 1: Day Degree comparison using the DD 1532, planting date 10/11/22 Source www.csd.net.au/ddc

AREA	Gwydir Valley
Crop Stage	**Irrigated Cotton:** • Irrigated: 4 – 23 nodes and 6-9 NAWF • Dryland: 6-20 nodes, big spread with split germinations and planting dates. • Retentions 70-90% • A large numbers of crops growth and development has been impacted from spray drift of Group I (4) herbicides. *"Retentions variable, but overall pretty good"* *"Hormone damage is effecting the fruiting pattern".* *"Urea spread in the last few weeks"* *"All my fields have low level hormone damage – nothing with growth delayed yet"* *Dryland fields have 80% retention Top 5 and 70% all fruiting nodes.* *"Significant hail damage in a storm last weekend"* "Growth pretty uneven, pix applications starting"

Gwydir crop check

Irrigation	• Majority crop have had 4 or 5th irrigations completed .
Insects/Beneficial	•Mirids low levels •Two Spotted Mites – low to moderate, some hotspots. Sprays occurring. Abemectin has had variable results and persistence of mites means looking at other chemical options. Some Diafenthiuron (Pegasus) and Etoxazole (Zeal) has been applied last couple of weeks. •Low-mod level Green Vege Bugs and shield bugs •A few stink bugs and green vege bugs •Some GVB have eggs on them and fungal disease around their butt – hopefully keeping numbers in check. •Low levels and odd hot spot of Green Peach & Cotton aphid. Seeing some Cotton Bunchy Top on volunteers. •A new yet to be identified brown shield beetle has been sent away for identification, its only about 5mm in length. Also seen in St George 1-3/m. If you see any small brown shield beetles, Simone Heimoana, CSIRO, Narrabri (M. 0427 992 466, E. simone.heimoana@csiro.au) is keen to see samples. If you take a photograph always include the size as this is important for identification. •SLW, very few seen yet. At the AWM meetings last week it was decided to put the Pyriproxyfen window back 3 weeks (starting 18th February) however Janelle Montgomery will liaise with local consultants on SLW number, rate of build up and when our first sprays may occur (on the smaller area of early plant cotton). •There have been releases of E. Hayati (a beneficial wasp that will suppress SLW in cotton) on some farms. For more information on this go to Crop Capsules or Bug4Bugs
Weeds	• Fleabane, Barn Yard Grass, Feather Top Rhodes Grass, Peachvine and MilkThistle

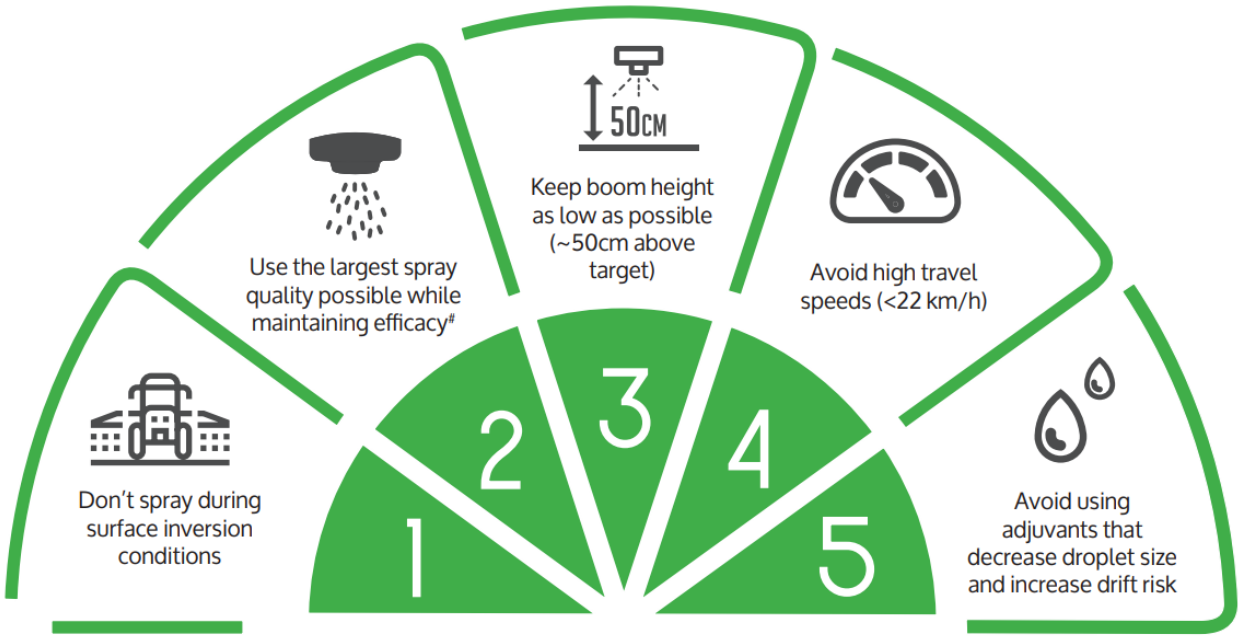
Gwydir crop check

Spray Drift	• Significant damage which is very concerning. • Estimate 40% cotton area severe damage, 40% moderate and 20% minimal. • Each week I continue to get reports of spray drift and damage getting worse • Crops are receiving their 3rd or 4th hit and suffering significant damage – estimate 30% plus drop in yields. • Everyone is frustrated. Gwydir CGA has been active in this space, thanks to our Chair Mick Humphries for representing us all. • Meetings with EPA re compliance audits and action from miss use have occurred at various levels of industry SOS (Stop Off Target Spraying) Groups are active and Mungindi Cropping Group and Gwydir SOS have joined forces again and currently rolling out a media blitz and intense social media campaign on the new WAND inversion tower technology and spray application best practice. ***What we need from you is. . .*** *Could you please follow their facebook and twitter sites so you can like and share through your networks so we get the greatest reach.* *It would also be helpful for you to also tag the sites in any posts on spraydrift that you do and include the following hashtags:* *#StoppOffTargetSpraying, #spraydrift, #agriculture , #agtech , #SOS_NSW* ***SOS Gwydir*** *Facebook: SOS GWYDIR FB* *Twitter: https://twitter.com/sosgwydir @SOSGwydir* ***Mungindi Cropping Group*** *Facebook: MCG FB* *Twitter: https://twitter.com/mungindicrop@mungindicrop* *Contact me if you have any issues or good ideas.* *Annette McCaffery* *SOS NSW Coordinator* *M: 0457 594 166* • Follow the SOS 5 Commandments for spray application • WAND Inversion towers for identifying “Hazardous Inversions” are up and running https://app.wand.com.au/ • Use Satacrop to identify sensitive crops areas before spraying https://satacrop.com.au

Gwydir crop check

Disease	• Wilt diseases showing up. • If you don't know what it is ring CottonInfo and get it sampled for identification – know what wilt you are managing. *Martin Murray, Growth Agriculture attended the AWM meetings last week. Sero-X is a good option for fields with lower levels of Verticillium as it will reduce the amount of inoculum returning the soil, slowing the build up.*
Comments	

SOS 5 Commandments:



 # Observe label directions for minimum and maximum droplet size. Water rates may need to be modified with increased droplet sizes.

Spray it right or lose the right

CottonInfo **Information** *when you need it*

Gwydir crop check

Sicot 746 B3F Planted 17/10/2022

22 nodes, 8 NAWF, Retention 84%

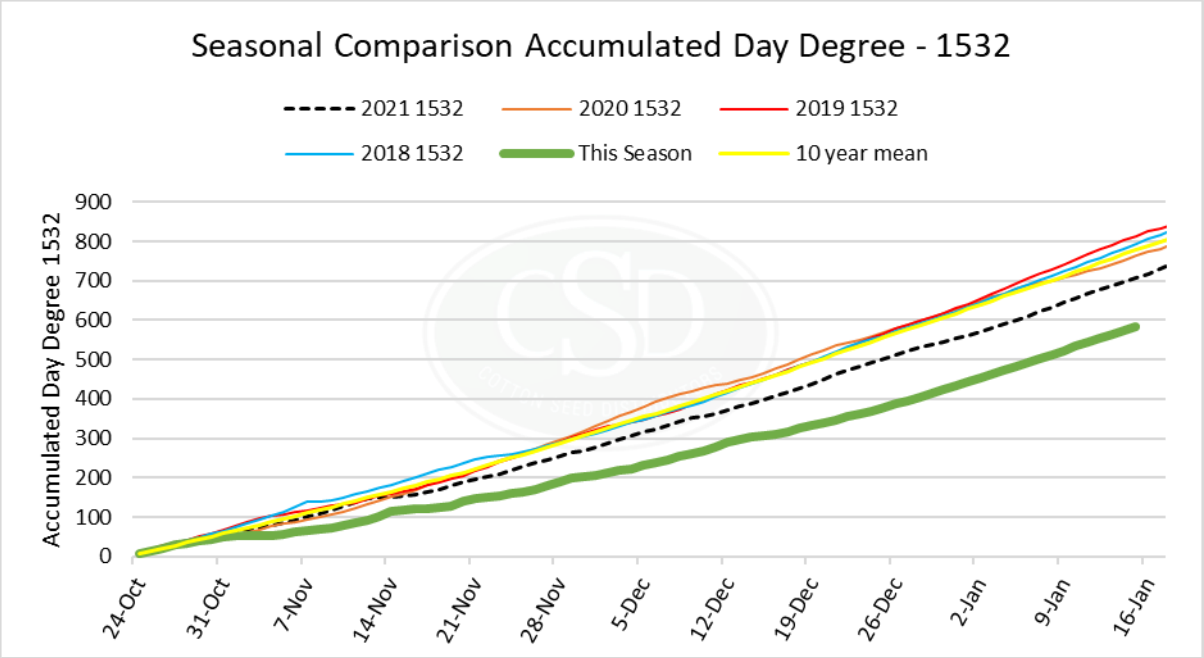
Sweeping some Lucerne in search of Mirids for the cotton industries Insecticide Resistance monitoring program.

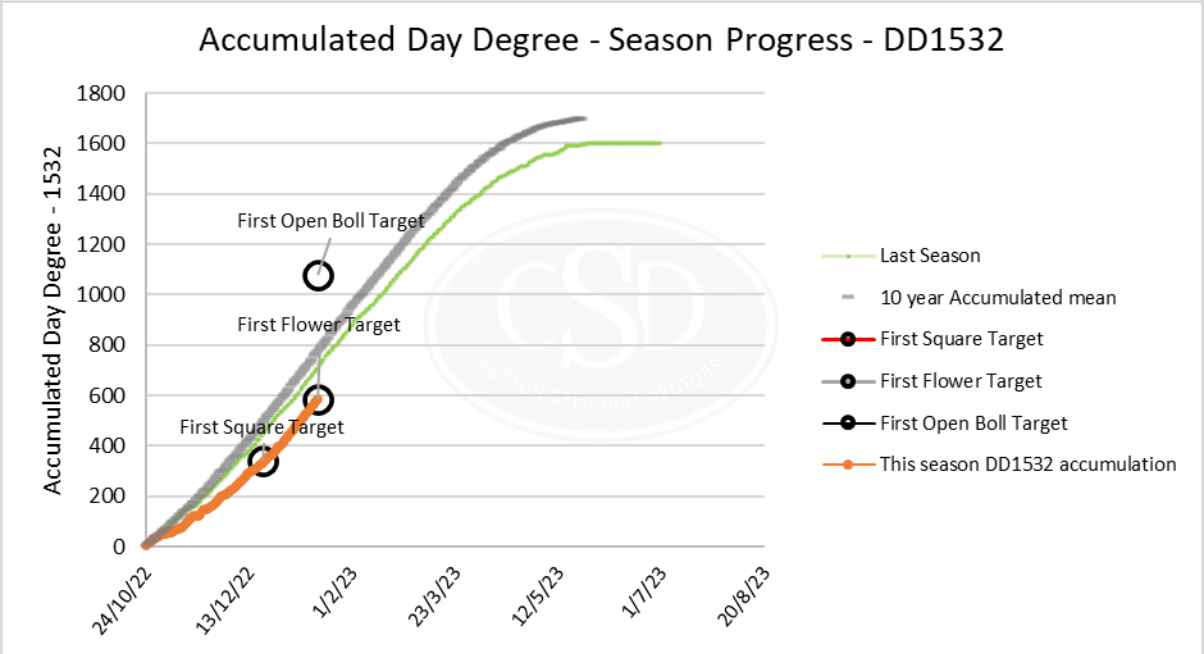
Thanks to all the Gwydir crop consultants for providing the information for this weeks crop check.

CottonInfo **Information** *when you need it*

Macintyre crop check

DATE – 14 January 2023





CottonInfo **Information** *when you need it*

Macintyre crop check

GOONDIWINDI AIRPORT

Download

Date range: 24 October, 2022 to 15 January, 2023 (84 days).

Summary | Seasonal comparison

	2022	2021	2020	2019	2018	10 year mean
Base 12	943.1	1067.3 ▲	1173.2 ▲	1314.1 ▲	1215.5 ▲	1172.4 ▲
DD1532*	582.8	706.9 ▲	764.1 ▲	813.3 ▲	792.2 ▲	758.1 ▲
Cold shock days (≤ 11°C)	11	5 ▼	2 ▼	6 ▼	2 ▼	4.2 ▼
Days above 36°C	5	11 ▲	25 ▲	48 ▲	26 ▲	23.6 ▲
Nights above 25°C	0	0	1 ▲	5 ▲	1 ▲	2.1 ▲
Days above 40°C	0	0	6 ▲	13 ▲	4 ▲	4.8 ▲
Total rainfall (mm)	85.4	367.2 ▲	196.5 ▲	35.6 ▼	109.8 ▲	133.0 ▲
Total radiation (MJ/m^2)	1968.2	1812.3 ▼	1893.4 ▼	2151.9 ▲	2076.0 ▲	1832.8 ▼
Average temperature (°C)	23.0	24.6 ▲	25.9 ▲	27.5 ▲	26.4 ▲	25.9 ▲

* Experimental calculation.

Climate observations and data are obtained via the State of Queensland SILO patched point dataset.

Seasonal Day Degree and historical data sourced from Cotton Seed Distributors Day Degree Calculator found at www.csd.net.au/ddc. For more specific day degree and crop management detai for your farm, field and variety check out CottonTracka® at www.cottontracka.com.au

Day degrees (1532 system) for the season continue to be slow to accumulate despite some more "normal" numbers in recent weeks. The average temperature is near 3°C below the 10-year average. Solar radiation remains above the 10-year average which, with the warmer conditions, has provided better growing conditions for the crop. The BOM temperature outlook is suggesting temperatures will be more normal through until the second week of February with potential for warmer than normal temperatures from mid-Feb into March.

CottonInfo **Information** *when you need it*

Macintyre crop check

AREA	Macintyre Valley
Crop Stage	• Crops range from 10-20 nodes with earlier crops flowering just after Xmas.
Irrigation	• 2-4 in crop irrigations completed.
Insects/Beneficial	• Mirids sporadic causing variable damage • Complex of sucking insects developing including GVB, BSB and stainers.
Weeds	• Generally no issues although post-flooding seedbanks of pigweed and barnyard grass providing a challenge for some. Scattered fleabane.
Disease	• Cool period in mid-December saw a loss of plants from verticillium which has steadied with arrival of warmer conditions. • Fusarium still evident/obvious although new infection/spread has eased with warmer temperatures.
Environment/Drift	• Wide spread drift symptoms evident mostly of minor severity with late crops more affected. Pre-Xmas 90% of crops showing light symptoms however this has come back to around 10%.
Comments	• "Early crops looking very good now, late crops starting to improve" • "January warm conditions have allowed crops to achieve a lot. Crops still 1-14 days behind where they would normally be at this time."

Seasonal Day Degree and historical data is sourced from Cotton Seed Distributors Day Degree Calculator found at www.csd.net.au/ddc. For more specific day degree and crop management detail for your farm, field and variety check out CottonTracka® at www.cottontracka.com.au

CottonInfo **Information** *when you need it*

Mungindi crop check

13th January 2023

Day Degree

Table 1: **Seasonal Information based on 5th November 2022 planting date (Source: Cotton Seed Distributors)**

	2022	2021	2020	2019	2018	10 year mean
Base 12	861.0	962.2 ▲	1070.1 ▲	1162.8 ▲	1089.2 ▲	1059.2 ▲
DD1532*	545.8	633.6 ▲	685.9 ▲	701.7 ▲	697.5 ▲	671.1 ▲
Cold shock days (≤ 11°C)	6	4 ▼	2 ▼	5 ▼	1 ▼	2.3 ▼
Days above 36°C	13	18 ▲	29 ▲	50 ▲	33 ▲	32.2 ▲
Nights above 25°C	1	1	5 ▲	19 ▲	8 ▲	6.1 ▲
Days above 40°C	1	3 ▲	13 ▲	23 ▲	10 ▲	10.9 ▲
Total rainfall (mm)	32.8	158.7 ▲	170.8 ▲	45.2 ▲	61.2 ▲	76.1 ▲
Total radiation (MJ/m^2)	1614.9	1528.5 ▼	1580.5 ▼	1813.2 ▲	1729.9 ▲	1527.1 ▼
Average temperature (°C)	24.5	26.1 ▲	27.7 ▲	29.0 ▲	28.0 ▲	27.5 ▲

* Experimental calculation.

Climate observations and data are obtained via the State of Queensland SILO patched point dataset.

Accumulated day degree 'targets' after seed imbibed

Cotton development	DD Base 12** (Industry standard)	Experimental DD 1532
Emergence	80	50
First square	505^	339
First flower	777^	584
First open boll	1527^	1077

^ Please note that DD Base 12 targets to first square, first flower and first open boll will increase by 5.2 DD for EACH cold shock event - please adjust your target accordingly.

Targets relate to specfic developmental events.

** **Source:** Australian Cotton Production Manual 2019 (page 8).

Mungindi crop check

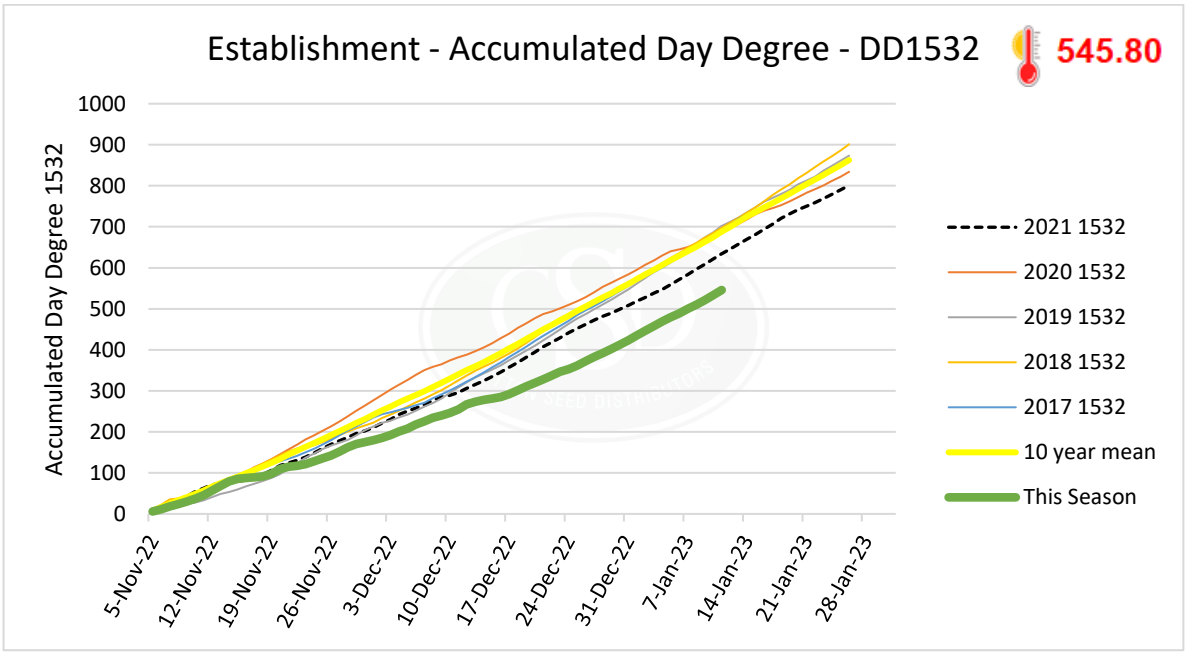


Figure 1: Day Degree comparison using the DD 1532, planting date 5/11/22 Source www.csd.net.au/ddc

AREA	Mungindi
Crop Stage	**Irrigated Cotton:** • Early plant: 19-20 nodes – flowering, generally 8-9 NAWF • Late plant: 12-13 nodes – squaring • Retention goods **Dryland:** • 6 nodes to early flowering. Majority early to mid squaring.
Irrigation	• Mostly up to 3rd irrigation. Using 0.7-1ML/ha, some completed 4th irrigation

Mungindi crop check

Insects/Beneficial	• Mirids low levels • Low level Green Vege Bugs, pale cotton stainers and shield bugs • Seeing shield bugs/ vege bugs in fields close to rivers or native vegetation. • Low levels and odd hot spot of Green Peach & Cotton aphid. • Low levels of Two Spotted Mites
Weeds	• Fleabane, Peachvine, Barn Yard Grass, Feather Top Rhodes Grass, Sesbania and Milk Thistle I saw an interesting post on Twitter about Paraquat resistant fleabane in Sth NSW. Is anyone having survivors after their double knock in our district? If you do let CottonInfo or Bayer know and we can arrange to get the seed tested. https://twitter.com/agrobaz/status/1610194388592005120?s=20&t=0pjsq3d2dMzSC-5f6W_P4A Here is a link to a NSW DPI paper on that topic: https://www.researchgate.net/publication/354104722_Paraquat_resistance_and_hormetic_response_observed_in_Conyza_sumatrensis_Retz_E_Walker_tall_fleabane_in_Australian_cotton_cropping_systems
Spray Drift	• Significant inversion drift across the Mungindi district *"Just post Christmas nearly every paddock had light drift of phenoxy"* *"EVERY field has been hit with spray drift"* *" Damage ranges from mild to severe, with 24D still being expressed in top 7-9 nodes in most field".* *"While crops will recover from current damage, we are only at the start of the season, and most severely affected fields may not survive a second hit".* *"Almost all fields have had 1-2 minor hits of 2, 4-D".*
Disease	• Defoliating wilt becoming prevalent. • High levels of verticillium reported early in the season

CottonInfo **Information** *when you need it*

Mungindi crop check

Comments	*"Heliothis egg pressure comes in waves no higher than 15 eggs/m found so far this season"* *"BENEFICIALS just starting to come into the crop - they seem light on compared to some years"* *"Isolated hail damage from storm yesterday which has done a fair bit of damage. Other than that and hormone damage, crops are finally starting to take off and kick into gear"* *"Overall happy with how crops are progressing, last weeks heat and high fruit retention's have tightened irrigation schedules"* *"Beneficials at moderate levels, no sprays yet & whitefly at very low levels"* *"Weeds being kept at bay with Gly, residual and cultivation before first water. Grasses & fleabane biggest hassle though"* *"Cotton has enjoyed warmer weather over the passed few weeks after such a cool start*

Thanks to all the Mungindi crop consultants for providing the information for this weeks crop check.

Seasonal Day Degree and historical data is sourced from Cotton Seed Distributors Day Degree Calculator found at www.csd.net.au/ddc. For more specific day degree and crop management detail for your farm, field and variety check out CottonTracka® at www.cottontracka.com.au

CottonInfo **Information** *when you need it*

Namoi crop check

DATE – 22nd December 2022

Area – Namoi	
Crop Stage	Gunnedah - Emergence – 12 nodes - Kicked into gear after very slow start - Late planted crops & replant areas Narrabri - 4 – 12 nodes - Squaring on more mature crops Walgett - 5 – 12 nodes - Squaring on some crops, 4-6 true leaves on others No reports of First Flower yet.
Irrigation	- First irrigation has occurred for most crops. - Some fields had fertiliser spread and incorporated via cultivation and then watered - Rainfall due this weekend will provide a much-needed top up for dryland fields
Pests/Beneficial Insects	- Low population of mirids but no insecticide measures yet - Thrips caused lots of damage this year - Mites turned up early and have caused reddening of leaves. A few sprays in other valleys noted. Thrips (as a beneficial) proving effective in keeping spread under control. - Apple Dimpling Bugs present - Beneficials – ants, ladybugs, spiders present
Weeds	- First RoundUp Ready applications - Yellow vine, fleabane, pigweed, persistent milk thistle, grasses (Phalaris, windmill grass), wireweed - Cultivation ongoing in places for weed control

Namoi crop check

Disease	- Black Root Rot damage & plant death to young cotton – not surprising given the conditions we experienced
General comments	- Food affected areas replanted. Cotton was very slow to get going. - Wireworm caused damage to a lot of crops. - Cold & wet to start to the season with cold shock effects seen. - Plenty of moisture at depth, just need to keep the topsoil damp - Drift evidence throughout a lot of crops this year. - 2,4-D effects causing abnormal growth and mild to harsh in severity See below graphs for Seasonal Comparison of Accumulated Day Degrees. It is no surprise that we are tracking well below previous years. That's not to say that the crop isn't growing, we just aren't receiving as much heat accumulation combined with cool overnight temperatures!

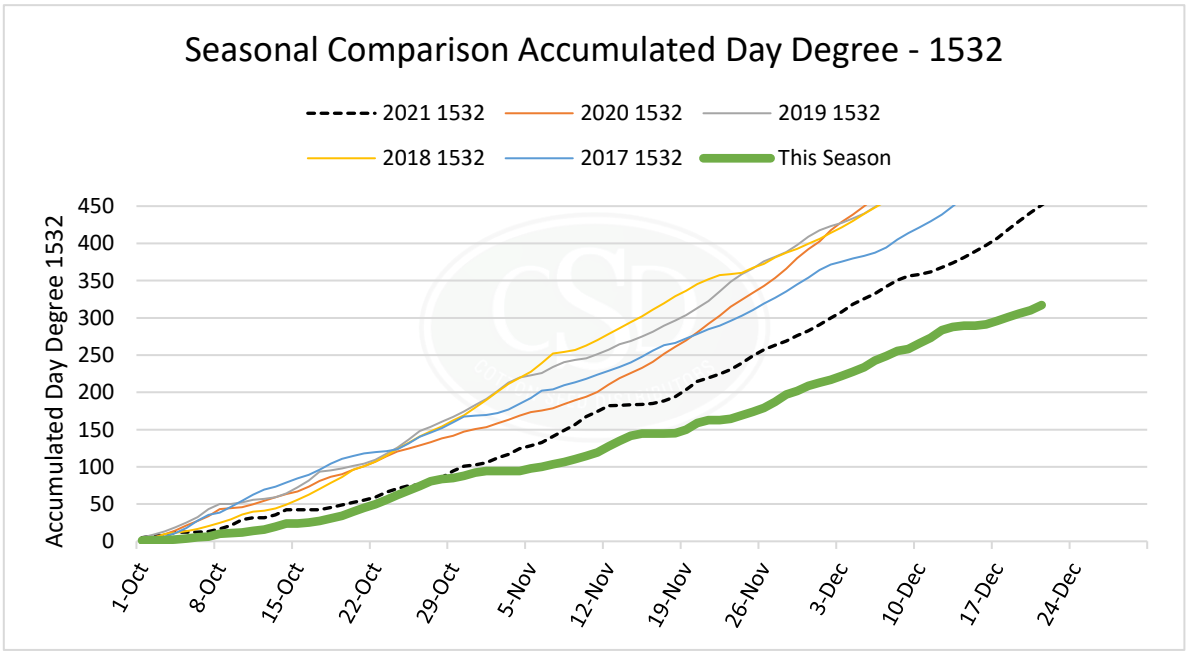


Figure 1: Accumulated Day Degree Seasonal Comparison – Narrabri Airport, taken 21st December 2022

Namoi crop check

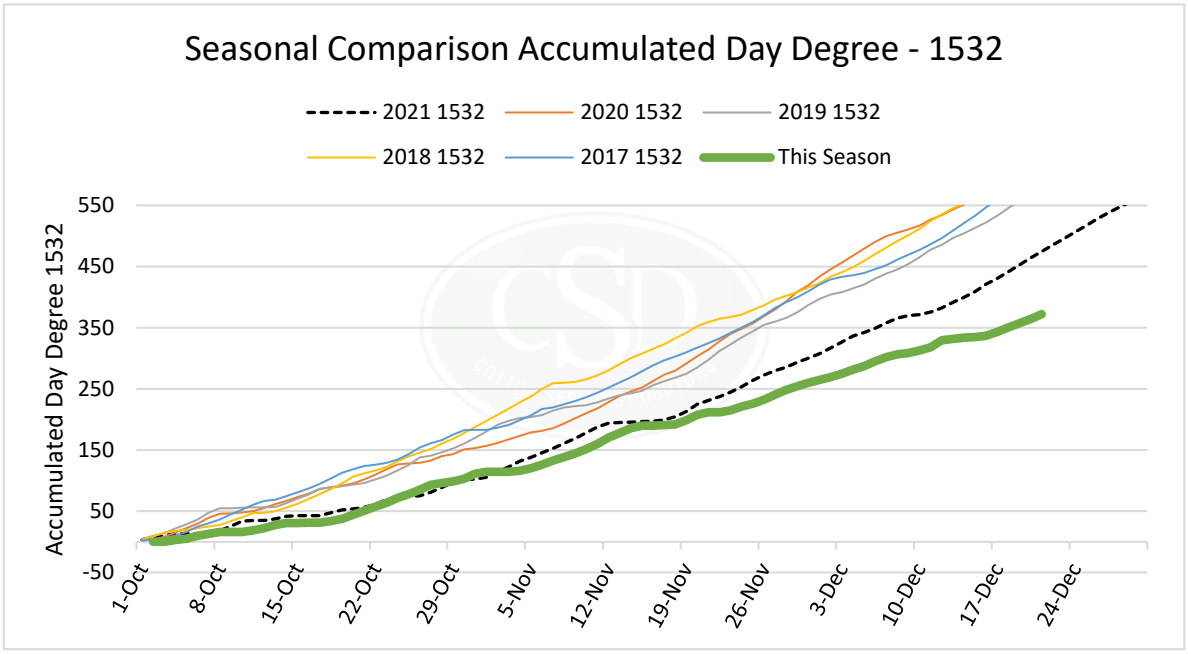


Figure 2: Accumulated Day Degree Seasonal Comparison – Walgett Airport, taken 21st December 2022

Seasonal Day Degree and historical data is sourced from Cotton Seed Distributors Day Degree Calculator found at www.csd.net.au/ddc. For more specific day degree and crop management detail for your farm, field and variety check out CottonTracka® at www.cottontracka.com.au

Macquarie crop check

DATE – 25TH JAN 2023

Please note Day Degree Calculations are in 1532 format to better reflect the DD the plant can use. Please email with any questions or further information you would like to see.

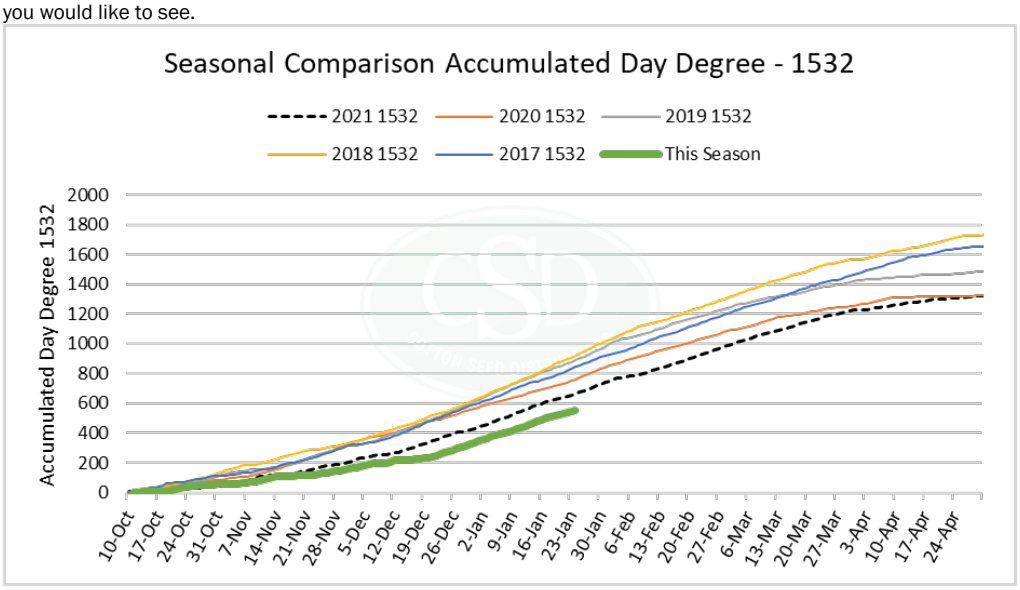


Fig 1 : Trangie accumulated DD 10th of October planting

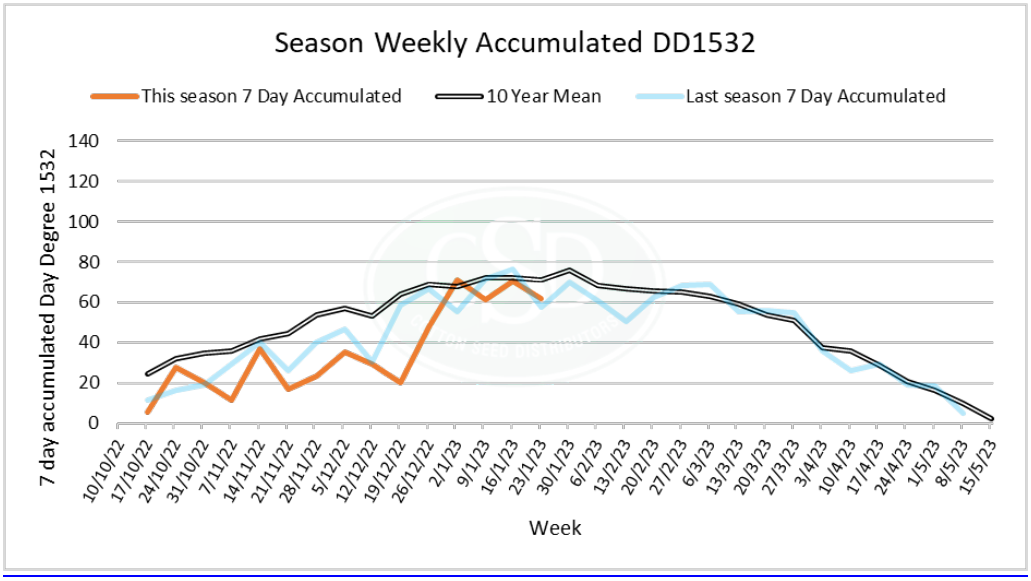


Fig 2 : Trangie 7 day accumulated DD 10th of October planting

Macquarie crop check

Figure 3: Day Degree comparison Source www.csd.net.au/ddc

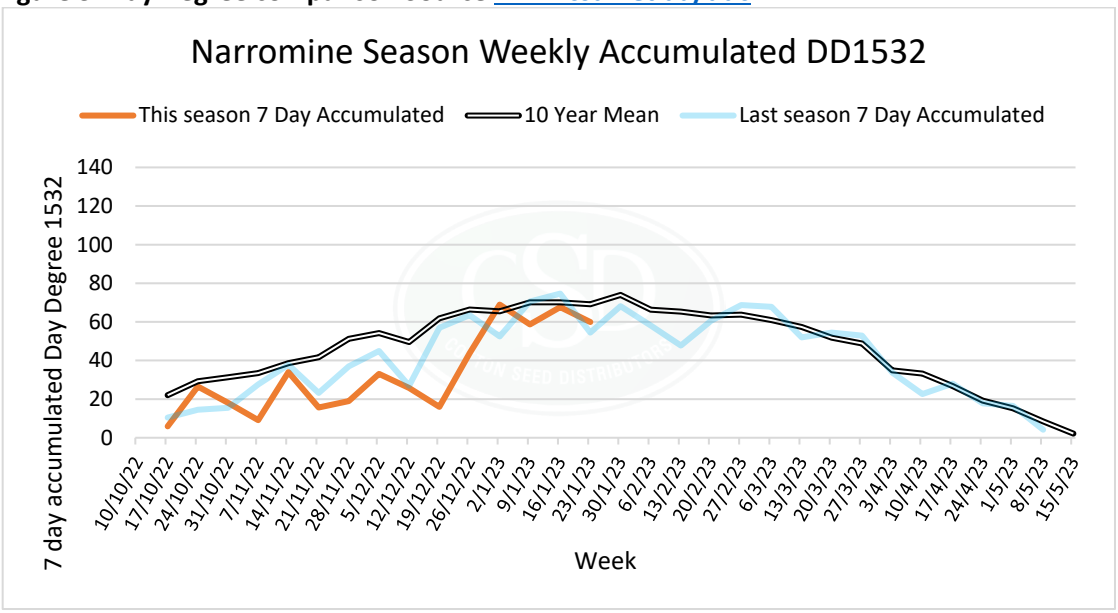
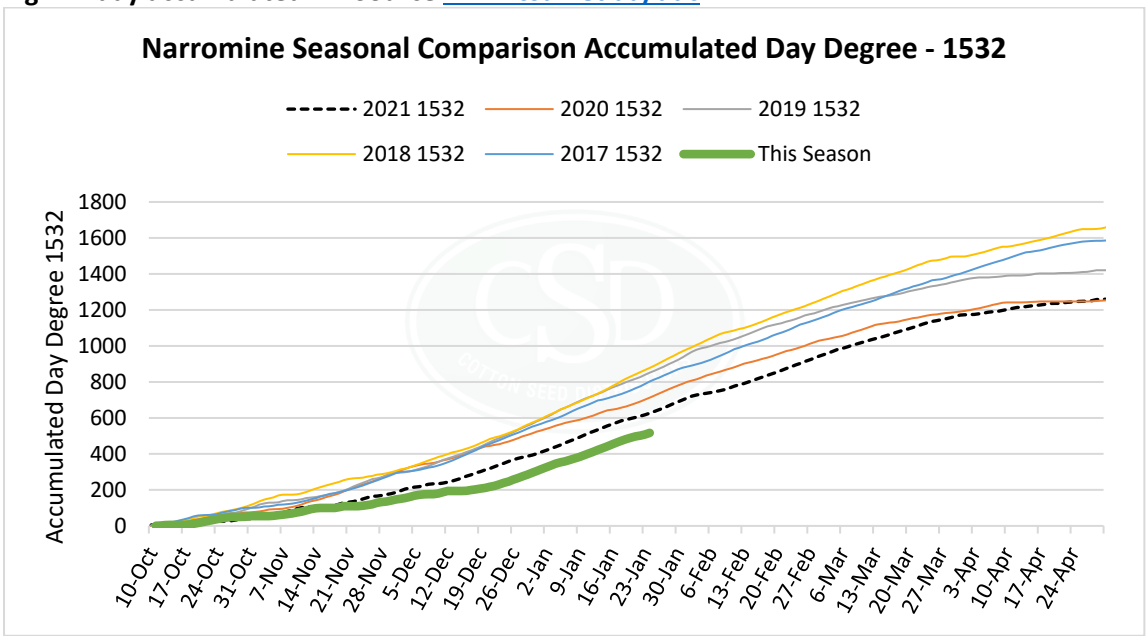


Fig 4: 7 day accumulated DD Source www.csd.net.au/ddc



Macquarie crop check

Figure 5: Day Degree comparison Source www.csd.net.au/ddc

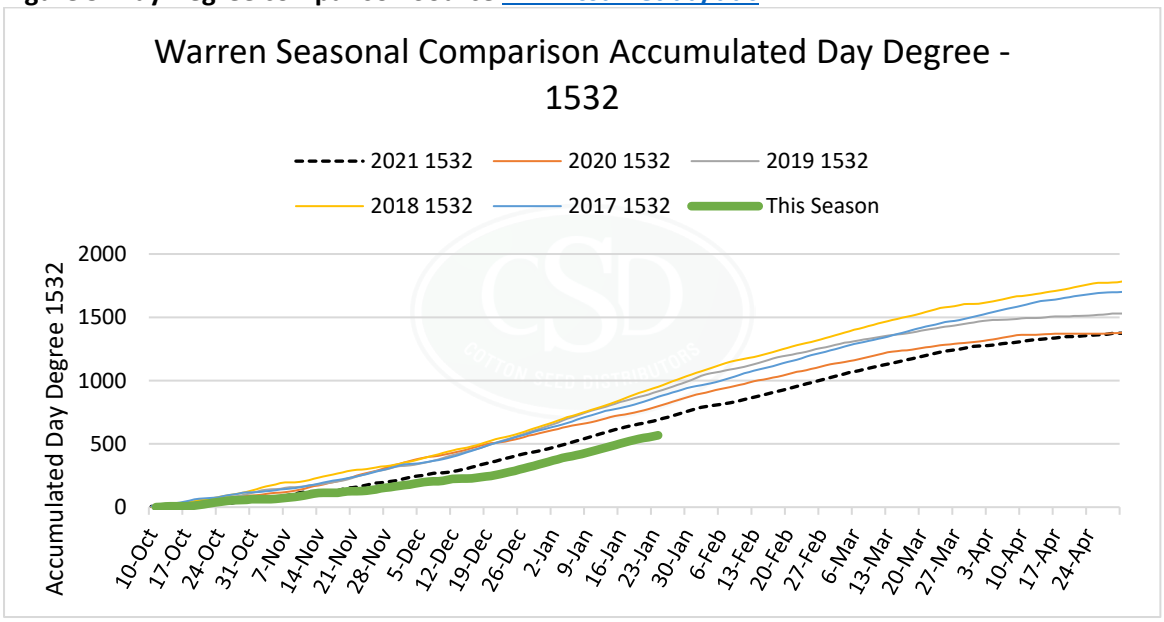
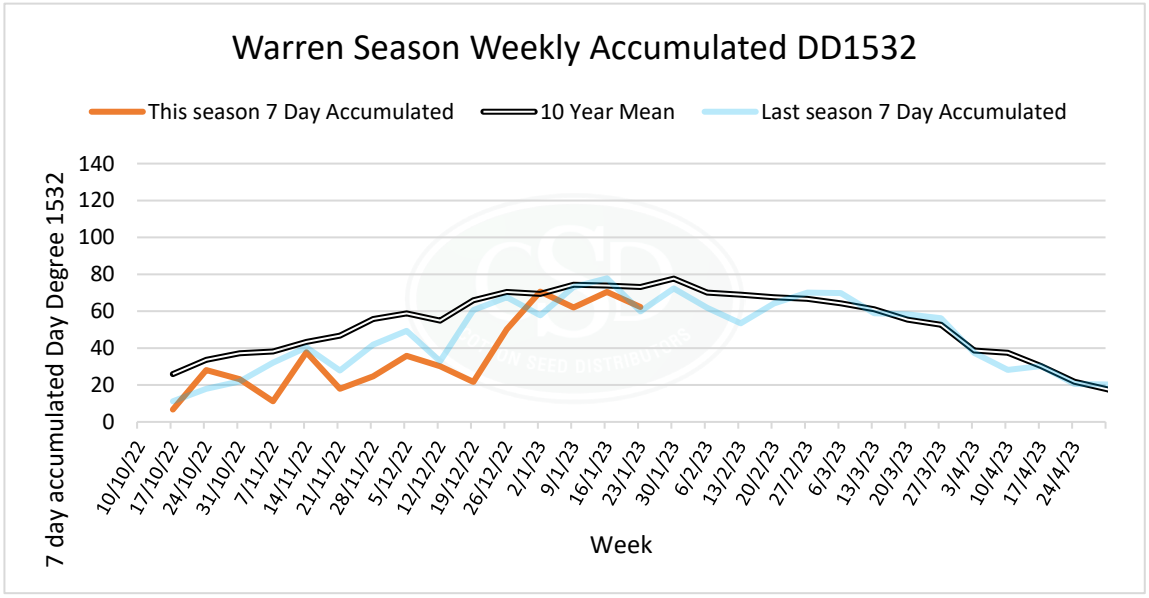


Fig 6: 7 day accumulated DD Source www.csd.net.au/ddc



Macquarie crop check

WARREN (FRAWLEY ST)

Download

Date range: 10 October, 2022 to 24 January, 2023 (107 days).

Summary | Seasonal comparison

	2022	2021	2020	2019	2018	10 year mean
Base 12	1048.6	1161.0 ▲	1299.1 ▲	1508.9 ▲	1506.4 ▲	1341.9 ▲
DD1532*	567.9	690.2 ▲	797.4 ▲	915.3 ▲	951.2 ▲	815.4 ▲
Cold shock days (≤ 11°C)	27	20 ▼	13 ▼	17 ▼	5 ▼	14.8 ▼
Days above 36°C	13	12 ▼	19 ▲	40 ▲	38 ▲	26.3 ▲
Nights above 25°C	0	0	2 ▲	13 ▲	12 ▲	4.7 ▲
Days above 40°C	0	0	5 ▲	18 ▲	15 ▲	7.5 ▲
Total rainfall (mm)	142.2	213.3 ▲	161.5 ▲	39.6 ▼	131.0 ▼	116.1 ▼
Total radiation (MJ/m^2)	2383.1	2256.4 ▼	2508.4 ▲	2596.5 ▲	2583.8 ▲	2303.6 ▼
Average temperature (°C)	21.3	22.4 ▲	23.9 ▲	25.9 ▲	26.0 ▲	24.3 ▲

* Experimental calculation.

Seasonal Day Degree and historical data is sourced from Cotton Seed Distributors Day Degree Calculator found at www.csd.net.au/ddc. For more specific day degree and crop management detail for your farm, field and variety check out CottonTracka® at www.cottontracka.com.au

SUMMARY

Head to csd.net.au for your tailored day degree reports as you can see the DD represented in the 1532 is behind the 10 year mean however the last month has seen us climb back up and the crop is certainly starting to kick into gear.

OFF TARGET DRIFT EVENTS CONTINUE

There has still been a number of events across the region resulting in damage to our current crop. Of the 25 000ha we have planted over 43% of the crop has been affected by at least one event and in some case up to three events. SOS have launched a campaign and we need your help to spread the word please report any damaged hectares to cotton Australia as meeting are happening this week to form an action plan.

Twitter: http://bit.ly/3ZYB67c
Facebook: https://bit.ly/3wq79iK

Macquarie crop check

AREA	MACQUARIE - Trangie Nevertire Narromine Warren
Crop Stage	• 15 – 20 Nodes • Early to mid flowering •
Irrigation	• 4th irrigation happening now • 5th and 6th in crop depending on this next rain event • Crop still using a up to 1.1megs/water
Insects/Beneficial	• Green Vege Bug is building across the valley • Light Mirid pressure • Mites are present but below threshold at this point. • No sign of SLW this season.
Weeds	• Fleabane continues to be of concern • Windmill/blow away grass has caused massive problems in irrigation systems - blocking syphons and impacting water flow around channels and pumps. • Cultivation had to occur due to fleabane in come fields •
Disease	• No comments reported.

CottonInfo **Information** *when you need it*

Macquarie crop check

Comments	• Plenty of pix going on and needed, Good retentions and fruit numbers • Starting to see a good fruit load building