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).

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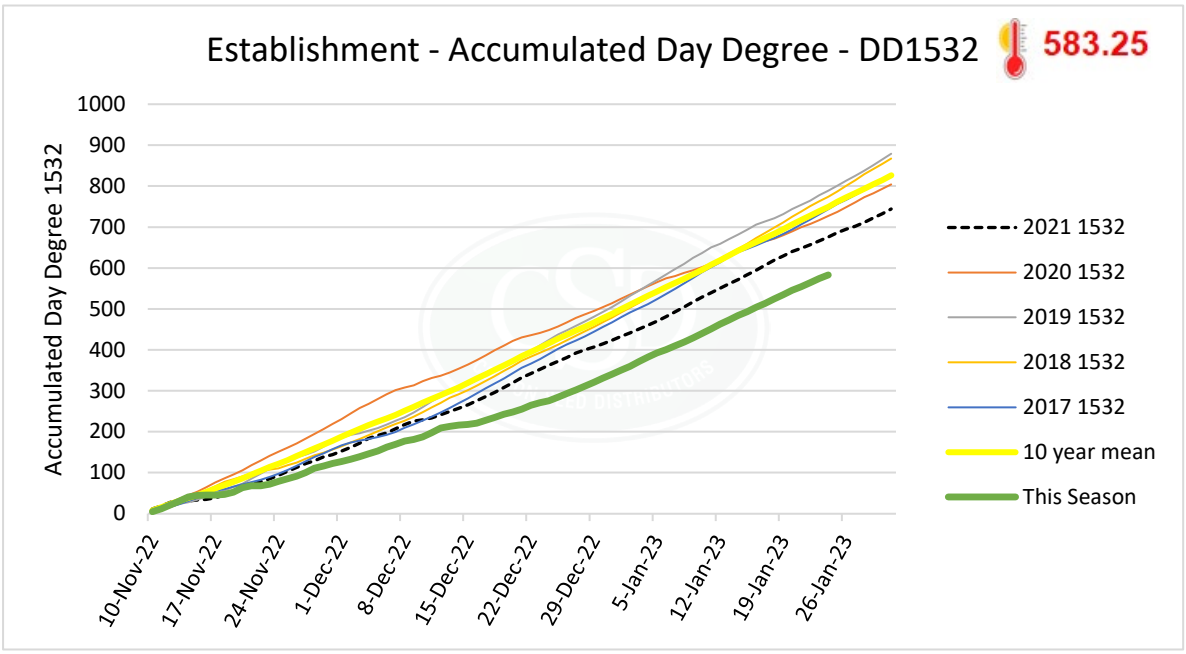

Figure 1: Day Degree comparison using the DD 1532, planting date 10/11/22 Source www.csd.net.au/ddc

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"

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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. Abamectin 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

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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

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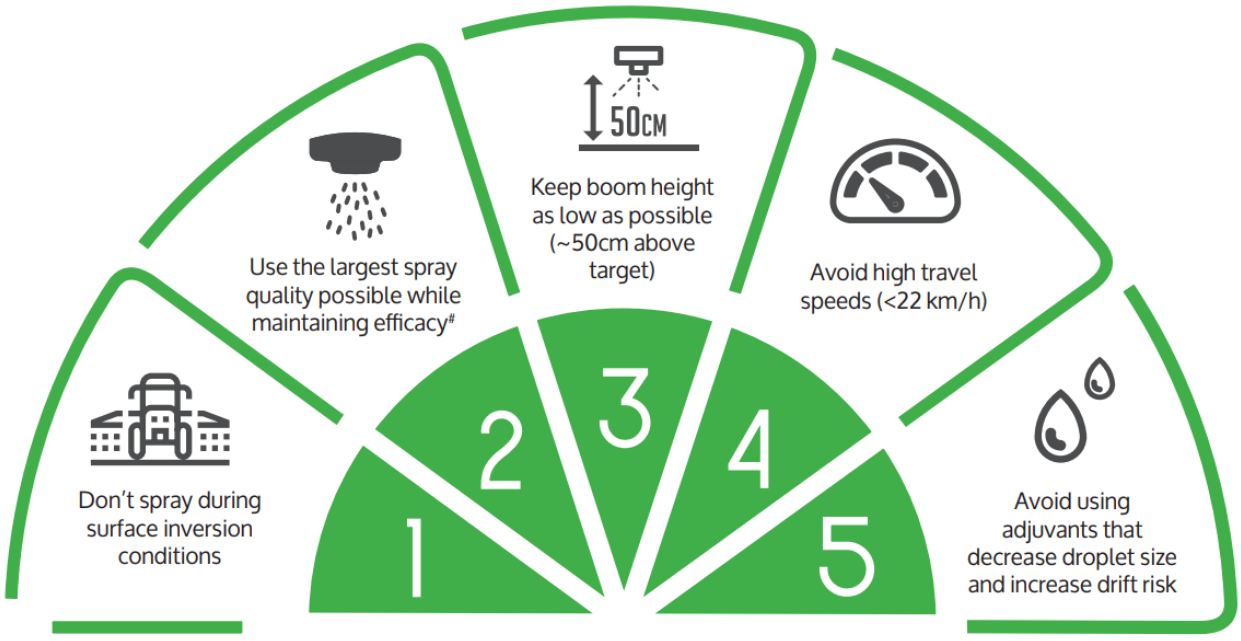
Disease	• Wilt diseases showing up. • If you don't know what it is ring CottonInfo and get it sampled for identification – know what wilt you are managing. *Martin Murray, Growth Agriculture attended the AWM meetings last week. Sero-X is a good option for fields with lower levels of Verticillium as it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

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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.