Sugar Research Australia

VARIETY GUIDE 2025/2026

Central Region

HOW TO USE THIS GUIDE

This guide is designed to help growers in the Central cane growing region with their agronomic considerations when selecting new varieties to plant and trial on their farms. The information comes from the best available data of regional variety performance and disease ratings. ***The information in the tables will help you understand:***

WANT TO KNOW WHAT IS HAPPENING IN THE OTHER REGIONS?

You can find all the regional variety guides on the SRA website.
Visit sugarresearch.com.au or scan the QR code.

(Cover page) *First row of a Final Assessment Trial planted at Rosella in 2025.*
(Left) *The SRA Te Kowai station irrigator at rest after watering the 2024 Central seedlings straight after planting.*

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NEW AND RECENT VARIETIES AVAILABLE IN THE CENTRAL REGION

Variety Recommendation and Release Process

Regional Variety Committees (RVCs) are responsible for variety release decisions. SRA supports these groups with secretariat support and the provision of technical information to assist the committee making decisions on particular varieties.

RVCs are composed of voting and non-voting members to ensure transparency in the decision making process.

The Central RVC (Sugarcane Biosecurity Zone 3) voting membership consists of grower representatives from Proserpine, Mackay and Plane Creek (one each), and representatives from Wilmar and Mackay Sugar.

The Central RVC requires a majority vote for progression of a variety through the breeding program and a unanimous vote for the release of a new variety.

If you would like more information on new variety releases and regional variety committees, visit the SRA website: ***sugarresearch.com.au or scan the QR code.***

Presented below and over the following pages are the results of trials conducted in the Central region. Yield (tonnes cane per hectare - TCH) and Commercial Cane Sugar (CCS) for each new variety are compared with the trial results of various standard varieties.

Variety: WSRA17Φ		***Parentage:*** *Q208 x Tellus*			***Summary:*** *Lower tonnes cane; equal CCS*			
TRIAL HARVEST YEAR	**CROP CLASS**	**YIELD (TCH)**			**CCS**			**# OF HARVESTS**
		WSRA17Φ	**KQ228Φ**	**Q240Φ**	**WSRA17Φ**	**KQ228Φ**	**Q240Φ**	
(2015 series FATs): 2016	Plant	89	98	96	16.4	16.7	16.1	4
2017	1R	74	74	83	17.8	17.8	17.9	4
2018	2R	74	75	83	18.2	18.3	18.1	4
Overall performance		**79**	**83**	**87**	**17.5**	**17.6**	**17.4**	**12**
Contact your local PSO for whole stalk availability and to order as Tissue Culture								
Comments:		WSRA17Φ was initially approved for release in the Burdekin region in 2018, and it has since become predominantly cultivated in the Burdekin River Irrigation Area (BRIA) district, where it does well in sodic duplex soils. Given that approximately 40% of the Proserpine district consists of sodic duplex soils, there was significant interest in trialling this variety in that area. WSRA17Φ can be slow to germinate, but it keeps growing throughout the season. WSRA17Φ was approved for release in the Central region by the Regional Variety Committee in 2025.						

Variety: SRA32Φ		***Parentage:*** *QN80-3425 x QN86-2168*				***Summary:*** *High tonnes cane; slightly below CCS*				
TRIAL HARVEST YEAR	**CROP CLASS**	**YIELD (TCH)**				**CCS**				**# OF HARVESTS**
		SRA32Φ	**Q208**	**Q240Φ**	**SRA9Φ**	**SRA32Φ**	**Q208**	**Q240Φ**	**SRA9Φ**	
(2020 series FATs): 2021	Plant	139	128	126	133	17.8	18.0	18.0	17.5	3
2022	1R	138	124	114	119	16.8	16.9	17.1	16.6	3
2023	2R	83	70	71	79	18.0	18.3	18.3	17.9	3
(2022 series FATs): 2023	Plant	142	122	123	145	16.7	17.1	16.6	16.0	3
2024	1R	133	101	112	106	17.4	17.5	17.4	16.8	3
Overall performance		**127**	**109**	**109**	**116**	**17.3**	**17.6**	**17.5**	**17.0**	**15**
Contact your local PSO for whole stalk or billet availability and to order as Tissue Culture										
Comments:		SRA32Φ has shown a 18% TCH yield advantage over Q208 in Central field trials. This yield advantage is consistent across trial locations in Central, Burdekin, Herbert and Far North. SRA32Φ is a reliable germinator for early crop establishment, it continues growing throughout the season and is best harvested mid-to-late season. SRA32Φ is a more profitable variety choice for growers with a low Pachymetra and smut risk. SRA32Φ has a large, open stool with a very high stalk count, and stalks of moderate thickness with good length. It has average arrowing similar to SRA9Φ, and suckering comparable to Q253Φ. It tends to lodge in larger crops and has large, bulbous eyes that are covered by moderate trash, and side shooting has been observed on exposed edges. SRA32Φ has a similar disease profile to Q208, with an intermediate rating for smut and Pachymetra. A moderate level of smut has been observed in SRA32Φ in second ratoon trials. Maturity sampling of SRA32Φ suggests it is best harvested mid to late in the season. Consider the use of crop ripeners to help maximize its CCS returns, as it has slightly lower CCS compared to other major commercial varieties. SRA32Φ was approved for release in the Central region by the Regional Variety Committee in 2024. Whole sticks were available from SSP and PCPSL in 2024 and will be available from MAPS in 2025.								

Variety: SRA40Φ		Parentage: *CP70-1547 x QA96-1492*			Summary: *High tonnes cane; low CCS*			
TRIAL HARVEST YEAR	CROP CLASS	YIELD (TCH)			CCS			# OF HARVESTS
		SRA40Φ	Q208	Q240Φ	SRA40Φ	Q208	Q240Φ	
(2014 series FATs): 2015	Plant	105	95		15.7	17.4		4
2016	1R	112	104		16.0	16.8		4
2017	2R	86	84		17.2	18.5		4
(2018 series FATs): 2019	Plant	115	91	96	15.2	16.9	16.7	3
2020	1R	100	103	99	15.6	16.8	16.8	3
2021	2R	105	102	104	16.6	17.8	17.8	3
Overall performance		**104**	**96**	*	**16.1**	**17.4**	*	**21**
Contact your local PSO for whole stalk availability and to order as Tissue Culture								
Comments:		SRA40Φ has shown a TCH yield advantage over Q208 of 9%, and a TSH advantage of 4% in SRA field trials. This yield advantage has been consistent across all trials throughout the Central region across a number of years and has performed well on a wide range of soil types. It has great disease resistance and has shown resistance to the major diseases found in the Central region which makes it a viable option in blocks with poor soils and high Pachymetra. SRA40Φ is a fast and reliable germinator which ratoons well when compared to Q208. It has a large stool with a high stalk number, the stalks are average thickness with good length. SRA40Φ has sparse arrowing, remains upright even in large crops, and doesn't sucker readily even in sprawling crops. It will continue to grow steadily throughout the autumn and winter months, and we recommend it is harvested mid-to-late-season to maximise its TSH. Consider planting on poorer soils or reduce the N applied to maximise CCS. SRA40Φ has great disease resistance and has shown to be resistant against smut, Pachymetra, leaf scald, red rot, and is intermediate for Fiji leaf gall. It is important to note that SRA40Φ will get brown rust similar to Q253Φ; this level of brown rust infection was observed in SRA field trials and at the MAPS farm at Victoria Plains. *Q240Φ was only evaluated in the 2018 series FATs and can only be compared against those particular plant and ratoon crops.						

Variety: SRA26Φ		Parentage: *QN97-2122 x Q146* / Summary: *Slightly below tonnes cane; higher CCS*								
TRIAL HARVEST YEAR	CROP CLASS	YIELD (TCH)				CCS				# OF HARVESTS
		SRA26Φ	Q208	Q240Φ	SRA9Φ	SRA26Φ	Q208	Q240Φ	SRA9Φ	
(2020 series FATs): 2021	Plant	119	128	121	130	17.7	17.1	17.3	16.8	3
2022	1R	126	133	127	126	17.4	17.1	17.2	16.7	3
2023	2R	77	79	79	85	18.1	17.8	18.0	17.4	3
Overall performance		**107**	**113**	**109**	**113**	**17.7**	**17.3**	**17.5**	**17.0**	**9**
Contact your local PSO for whole stalk or billet availability and to order as Tissue Culture										
Comments:		SRA26Φ has shown similar TCH to Q240Φ but better CCS than both Q208 and Q240Φ across all SRA FAT trial sites around the Central district. It has performed consistently on a range of soil types and across crop classes. One of its main advantages is its exceptional disease resistance to smut and Pachymetra which makes it a great option for growers with higher Pachymetra spore counts to rotate their varieties. SRA26Φ is a fast and reliable germinator with a large canopy that fills in quickly and provides better canopy closure than Q208. It is a very sparse and non-arrowing variety, is moderate trashing and does not sucker readily. It will continue to grow steadily throughout the autumn and winter months, and we recommend it is harvested mid-to-late season to maximise its CCS. SRA26Φ has a compact stool with high stalk number that stays erect and presents well to the harvester. SRA26Φ has internodes of even length and protected eyes making it an ideal variety for billet planting. But if whole-stalk planting be aware that it is very hairy, and care must be taken whilst handling. Preliminary experimental results and initial commercial experience suggests that SRA26Φ has RSD sensitivity between that of Q208 and Q253Φ. Chlorotic streak has been observed in SRA26Φ in low lying areas after rainfall events. Growers are advised not to source their SRA26Φ planting material from, or to plant SRA26Φ in, low lying areas.								

WSRA17Φ **SRA32Φ** **SRA40Φ** **SRA26Φ**




For more information on *variety field trials* contact:

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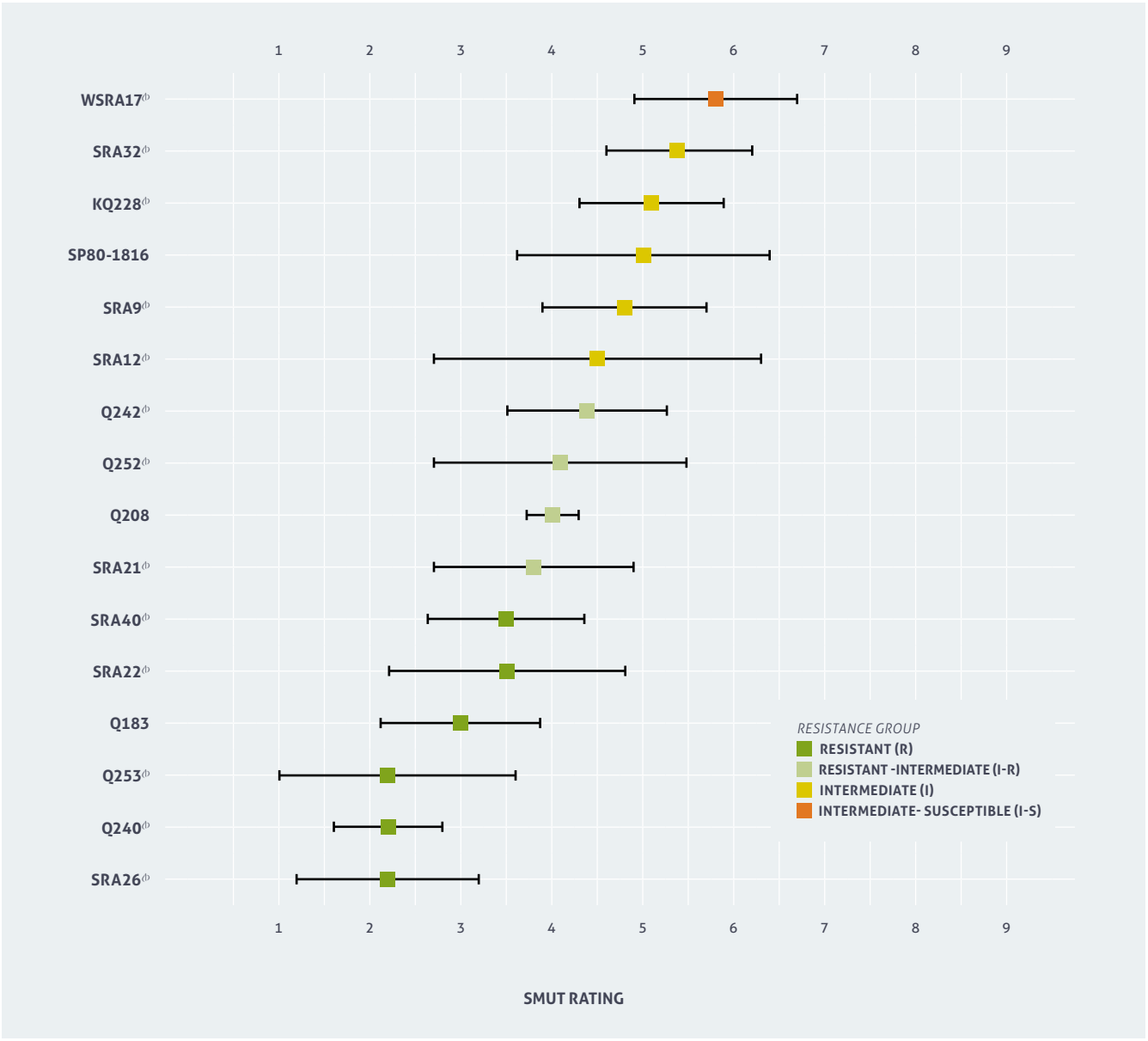
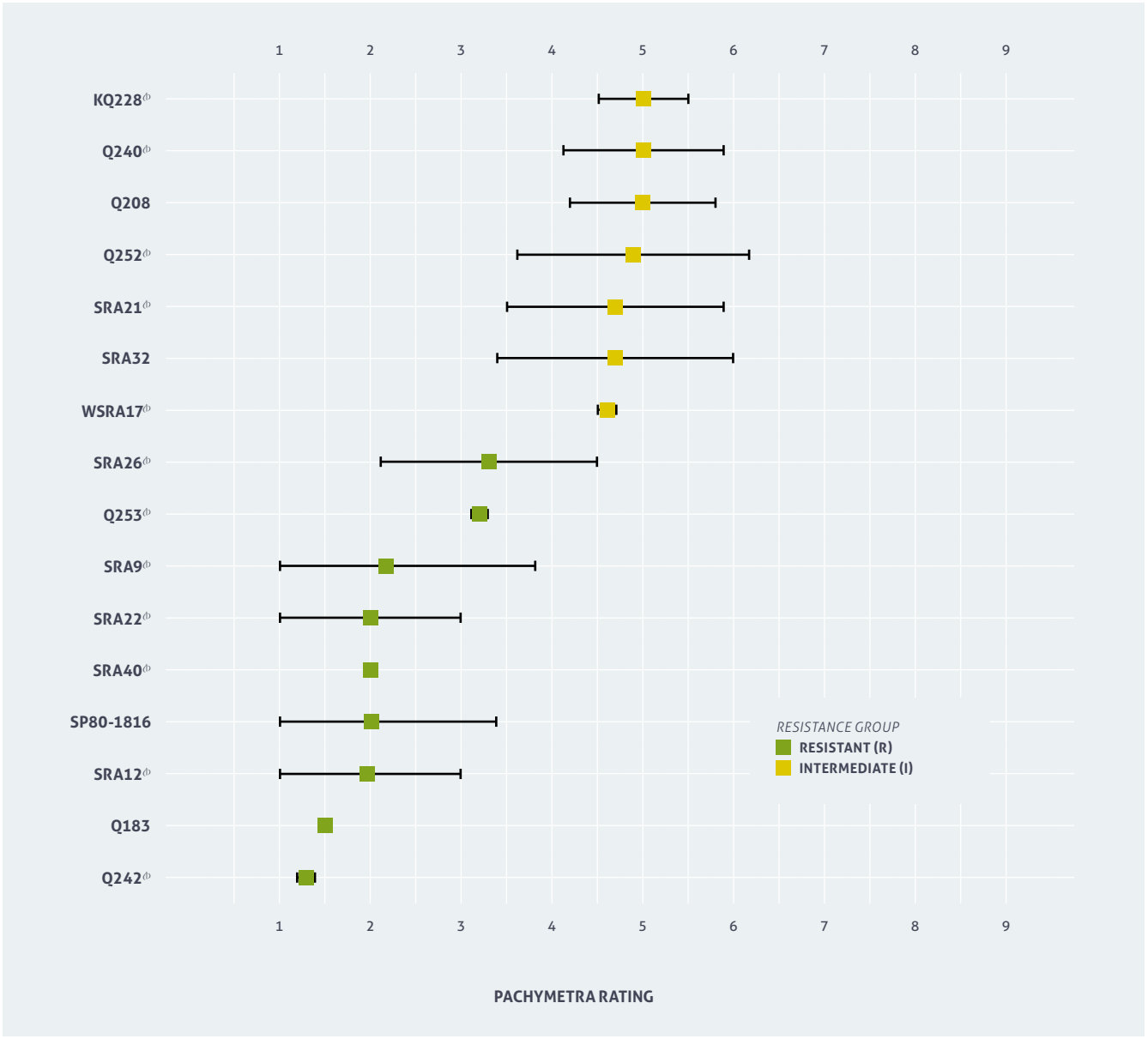
SMUT RATINGS

Smut resistance ratings are calculated from the incidence and severity of infection compared to standard varieties in inoculated field trials. The graphic includes the rating and the 95% confidence interval for each variety. The confidence interval is influenced by factors such as the number of trials and the uniformity of smut infection. For example, the variety Q240Φ has been tested in 14 trials and has a narrow confidence interval from 1.6 to 2.8 while the new variety SRA22Φ has only been tested in five trials and ranges from 2.3 to 4.8 and new variety SRA21Φ has only been tested in four trials and ranges from 2.7 to 4.9. Rating confidence will improve as more data is collected.



PACHYMETRA RATINGS

Pachymetra resistance ratings are calculated from the severity of infection in a test clone compared to standard varieties in inoculated bench trials. The graphic includes the rating and the 95% confidence interval for each variety. The confidence interval is influenced by factors such as the number of times a variety has been tested and variability of Pachymetra infection within each trial. Rating confidence will improve as more data is collected.



DISEASE RESISTANCE

Disease has the potential to lower the performance of varieties on your farm. This table contains all of the varieties approved for planting in the Central region, and will help you select varieties that will perform well given the diseases that may be present on your farm.

Central Disease Ratings

VARIETY	SMUT	PACHYMETRA	LEAF SCALD	RED ROT	CHLOROTIC STREAK	FIJI LEAF GALL	ORANGE RUST	BROWN RUST	YELLOW SPOT	MOSAIC
WSRA17Φ	I-S	I	R	R		I				R
SRA32Φ	I	I	R	I		I-R		R		R
SRA40Φ	R	R	R	R		I				I-R
SRA26Φ	R	R	R	R		I-R	R		R	S
SRA22Φ	R	R	I-R	I		R	R	R		R
SRA21Φ	I-R	I	R	I		R	R		R	I
SRA13Φ	I	R	R	I-R		R	R			R
SRA12Φ	I	R	R	I		I	R		I-R	I
SRA9Φ	I	R	R	I-R		I	R		I-R	R
Q253Φ	R	R	R	I		S	R	I-S	S	R
Q252Φ	I-R	I	R	R		I	R		I	R
Q250Φ	R	I	R	I		I-S	I		I-R	R
Q249Φ	R	I-R	R	I-R		R	R		R	R
Q247Φ	I-R	R	R	R		R	R		S	R
Q242Φ	I-R	R	R	I-R	I	R	R		R	R
Q240Φ	R	I	R	R	I-R	I-S	R		I	R
Q238Φ	R	R	R	I-R	S	I-R	R	R	S	R
Q232Φ	I-R	I	R	I-R	R	I	R		R	R
KQ228Φ	I	I	R	R	S	I	R	R	I	R
Q226Φ	R	I-S	R	R		R	R	I-S	R	R
Q208	I-R	I	R	R	R	I-S	R	R	R	R
Q200	I	I	R	R	I	R	R	R	I-R	R
Q190	R	R	R	R		R	R	I-R	I-S	R
Q183	R	R	I	I	S	R	R	R	I-S	R
Q138	S	R	R	I-S	I-R	R	R	R	I	I-S
SP80-1816	I	R	R	R		R	R		I	R

Rotation of Varieties

Rotation of varieties for each crop cycle is important in the management of diseases. Arrange for your local productivity services officer to inspect your farm for disease.

The *Diseases of Australian Sugarcane Field Guide* provides information on diseases including how to identify and manage them. The guide is available on the SRA website. **Visit sugarresearch.com.au or scan the QR code.**

NOTE: You will note that Ratoon Stunting Disease (RSD) resistance ratings are not included in this variety guide. Varietal resistance is not one of the three pillars of RSD disease management; growers should continue to ensure that approved seed cane is used to establish crops, that crops are planted into volunteer-free land and the equipment is decontaminated regularly.

No sugarcane varieties are resistant to RSD: they can all become infected, suffer yield losses, and further spread the disease.

Some varieties are more sensitive to RSD and carry significantly higher levels of the bacteria. In situations where RSD is a high risk and hygiene measures are not guaranteed, it may be appropriate to avoid varieties such as KQ228Φ and Q253Φ.

- RESISTANT (R)
- RESISTANT -INTERMEDIATE (I-R)
- INTERMEDIATE (I)
- INTERMEDIATE- SUSCEPTIBLE (I-S)
- SUSCEPTIBLE (S)
- UNKNOWN

*PROVISIONAL RATING

HARVEST MANAGEMENT

Select varieties for a harvest plan that can be followed to maintain maximum CCS throughout the year. The tables below indicate early, mid or late sugar varieties. The information presented in this table for the recently released varieties is based on very limited information and could be expected to differ in different circumstances and conditions. SRA will continue to monitor this information and update as more becomes available.

Central Harvest Management			
VARIETY	EARLY SUGAR	MID SUGAR	LATE SUGAR
WSRA17Φ	Average	Average	Average
SRA32Φ	Average	Good	Good
SRA40Φ	Poor	Average	Average
SRA26Φ	Average	Good	Good
SRA22Φ	Average	Good	Average
SRA21Φ	Good	Good	Average
SRA13Φ	Average	Average	Poor
SRA12Φ	Poor	Average	Average
SRA9Φ	Average	Average	Good
Q253Φ	Good	Good	Average
Q252Φ	Average	Good	Good
Q250Φ	Good	Good	Average
Q247Φ	Average	Average	Average
Q242Φ	Average	Average	Average
Q240Φ	Good	Good	Good
Q238Φ	Good	Good	Good
Q232Φ	Poor	Good	Poor
KQ228Φ	Good	Good	Average
Q208	Good	Good	Good
Q183	Good	Good	Good
Q138	Poor	Poor	Average
SP80-1816	Average	Good	Good

Maximise your profit at harvest:
Selecting varieties for specific sugar maturity profiles, planting and harvesting them for optimal CCS maturity at time of harvest can make a significant difference in the profit your crop can make for you. Making harvest decisions based on in-field maturity maximises profit-making decisions.

GOOD
AVERAGE
POOR

VARIETY BY HERBICIDE SCREENING TRIALS

Sugarcane varieties are known to have variable responses to herbicides with some being more impacted than others. As a result, data outlining susceptibility is critical to optimise productivity outcomes.

Since 2014, SRA has conducted trials following a two-step process to obtain reliable data for the susceptibility of varieties to herbicide. This process is:

- a fully randomised replicated pot trial in year one to shortlist the most susceptible combinations of varieties and herbicides
- a fully randomised replicated field trial in year two to confirm that the shortlisted combinations have an impact on yield.

In year three, the two-step process starts again, with new combinations of newly released varieties and herbicides.

In these trials, products are applied at their maximum label rate (and their minimum water label rate) when plant cane is at four- to six-leaf stage.

In the pot trials, weekly phytotoxicity ratings are conducted using the European Weed Research Council (EWRC) rating scale (Table 1) and the aerial plant dry biomass is measured 10 weeks after spraying.

In the field trials, plant cane yield is measured at harvest using a weigh truck.

In all trials, KQ228$^{(\phi)}$ is assessed and used as a susceptible reference variety to compare to other tested varieties.

Table 2 describes the phytotoxicity symptoms obtained on KQ228$^{(\phi)}$ and their expected severity. All varieties present identical symptoms but their severity may vary between varieties.

Tables 3, 4 and 5 summarise all phytotoxicity, biomass and yield results obtained in the pot and field trials from 2014 to 2022.

These tables are updated yearly to include newly tested combinations of varieties by herbicides.

For more information contact:
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TABLE 1. EWRC selectivity rating scale

SCORE	SELECTIVITY
1	No effect
2	Very slight effects. Some stunting and yellowing just visible
3	Slight effects. Stunting and yellowing obvious, effects reversible
4	Substantial chlorosis and or stunting, most effects probably reversible
5	Strong chlorosis/stunting, thinning of stand (50% loss)
6	Increasing severity of damage (70% loss)
7	Increasing severity of damage (85% loss)
8	Increasing severity of damage (90% loss) a few plants survive
9	Total loss of plants and yield

TABLE 2. Summary of phytotoxicity ratings and symptoms obtained on the reference susceptible variety KQ228$^{(\phi)}$

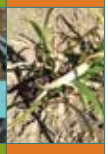
	2,4-D	AMETRYN	AMETRYN+ TRIFLOXY SULFURON	AMICARBAZONE	ASULAM	DIURON	FLUMIOXAZIN	METOLACHLOR	METRIBUZIN	MSMA
DESCRIPTION OF SYMPTOMS	Small white spotty discolorations	Yellowing of the whole plant	Slight yellow blotching	Small white spotty discolorations	Bright yellow blotching	Slight yellowing of the whole plant	Large necrotic lesions	Small necrotic lesions	Slight yellowing of the whole plant	Large necrotic lesions
PHOTOGRAPH OF SYMPTOMS										
SYMPTOM SEVERITY ON KQ228$^{(\phi)}$	Mild	Medium to severe	Mild	Mild	Medium	Mild	Severe	Medium	Mild	Medium to severe
	KQ228$^{(\phi)}$ PHYTO RATING RANGE									
	1.2 to 2.3	1.8 to 3.2	1.3	1.3 to 1.8	1.1 to 2.6	1.8 to 2.0	3.9 to 4.1	1.1 to 2.8	1.2 to 2.0	1.7 to 3.8

TABLE 3. Herbicide symptoms severity on the cane foliage for all testing varieties. (Legend: Refer to Table 1 (left) Page 12)

VARIETY	2,4-D	AMETRYN	AMETRYN+ TRIFLOXY-SULFURON	AMICARBA-ZONE	ASULAM	DIURON	FLUMIOXAZIN	METOLACHLOR	METRIBUZIN	MSMA
KQ228Φ	**1.6**	**2.1**	**1.7**	**1.3**	**1.6**	**1.7**	**3.6**	**1.8**	**1.6**	**2.7**
Q208	1.6		1.6		1.6			1.8	1.6	2.7
Q232Φ	1.6		1.7		1.6			1.8	1.6	2.7
Q238Φ	1.6		1.7		1.6			1.9	1.6	2.7
Q240Φ	1.6		1.6		1.6			1.8	1.6	2.7
Q242Φ	1.6		1.6		1.6			1.8	1.6	2.7
Q250Φ	1.6		1.7		1.6			1.8	1.6	2.7
Q252Φ	1.6		1.7		1.6			1.8	1.6	2.7
Q253Φ	1.6		1.6		1.6			1.8	1.6	2.7
SP80-1816	1.6		1.7		1.6			1.8	1.6	2.7
SRA9Φ	1.7	1.6		1.2	2.0		3.4	1.7	1.4	2.5
SRA12Φ	1.6	1.7		1.4	2.2		3.9	2.0	1.5	2.8
SRA13Φ	1.6	1.9		1.5	1.7		3.8	1.8	1.5	2.7
SRA21Φ	1.9	1.6		1.3	1.7	1.5		1.9	1.5	2.9
SRA22Φ	1.8	2.1		1.7	1.9	1.8		1.8	1.8	2.9
SRA26Φ	1.7	1.9		1.6	1.6	1.4		1.8	1.5	3.2
SRA40Φ	1.5	2.1		1.4	1.6	1.6		1.9	1.5	2.7

The predicted EWRC scores and associated colour code are presented for each tested combination of herbicides by variety. The predicted EWRC scores are derived from the average EWRC scores for each trial series, using KQ228Φ as the reference variety, in an attempt to harmonise trial variations as symptom severity can vary between trials: weather conditions at application, and/or during the trial can alter cane growth and herbicide response. Predicted EWRC scores derive from average EWRC scores across the 10-week assessment period, which means higher symptoms intensity and scores could have been observed during the assessment period.

TABLE 4. Percentage sugarcane dry biomass reduction in the pot trial (10 weeks after spraying) compared to the untreated control. (Legend: bottom of page)

VARIETY	2,4-D	AMETRYN	AMETRYN+ TRIFLOXY-SULFURON	AMICARBA-ZONE	ASULAM	DIURON	FLUMIOXAZIN	METOLACHLOR	METRIBUZIN	MSMA
KQ228Φ	**-9%**	**-49%**	**-57%**	**-15%**	**-6%**	**-32%**	**-30%**	no reduction	**-28%**	**-24%**
Q208	-12%		-49%		-5%			-12%	-26%	-35%
Q232Φ	-6%		-52%		-10%			-6%	-23%	-29%
Q238Φ	-17%		-49%		-24%			-7%	-30%	-31%
Q240Φ	-15%		-47%		-16%			no reduction	-26%	-30%
Q242Φ	-7%		-40%		no reduction			no reduction	-21%	-21%
Q250Φ	-20%		-56%		-26%			-15%	-26%	-40%
Q252Φ	-16%		-40%		no reduction			no reduction	-26%	-26%
Q253Φ	-13%		-55%		-20%			no reduction	-38%	-37%
SP80-1816	-12%		-39%		no reduction -4%			-7%	-30%	-29%
SRA9Φ	-6%	no reduction -39%		-21%	-15%		-32%	no reduction	no reduction -18%	no reduction -27%
SRA12Φ	-5%	-14%		no reduction	no reduction		-19%	no reduction	no reduction	no reduction
SRA13Φ	-12%	-33%		-25%	no reduction		-66%	-29%	no reduction	-58%
SRA21Φ	-4%	-50%		-15%	no reduction -15%	-32%		no reduction	no reduction -33%	-18%
SRA22Φ	-36%	-25%		no reduction	-77%	-43%		no reduction	-20%	-41%
SRA26Φ	-17%	-48%		-21%	-12%	-36%		no reduction	-32%	-38%
SRA40Φ	-25%	-54%		no reduction	-34%	-43%		-2%	-9%	-47%

The predicted biomass reduction in the pot trials is represented in a green-to-red scale. The predicted biomass reduction derives from the biomass reduction for each trial series, using KQ228Φ as the reference variety, in an attempt to harmonise trial variations : weather conditions at application, and/or during the trial can alter cane growth and herbicide response.

Predicted biomass reduction compared to the untreated is indicated in the table (a negative value indicates a biomass reduction compared to the untreated). Severe biomass reductions recorded 10 weeks after spraying are typical, as the plant metabolism has just been diverted into detoxifying the applied herbicide to the detriment of its growth. Usually yield loss by harvest time is less severe as the plant has had more time to recover from its growth delay.

TABLE 5. Percentage yield reduction in the field trial (at harvest) compared to the untreated control. (Legend: bottom of page)

The predicted yield reduction in the field trials is represented in a green-to-red scale. The predicted yield reduction derives from the yield reduction for each field trial series. The percentage value compared to the untreated is indicated in the table (a negative value indicates a biomass reduction compared to the untreated).

VARIETY	2,4-D	AMETRYN	AMETRYN+ TRIFLOXY-SULFURON	AMI-CARBAZONE	ASULAM	DIURON	METO-LACHLOR	METRI-BUZIN	MSMA
KQ228Φ	-1%	**-14%**		**-11%**	no reduction	**-6%**	**-3%**	no reduction	no reduction
Q232Φ			-9%				no reduction	-4%	no reduction
Q238Φ			-15%				-3%	-8%	-27%
Q242Φ			no reduction				-3%	no reduction	-24%
Q250Φ			no reduction				no reduction	no reduction	-7%
SRA9Φ				-8%	-3%				
SRA12Φ	-10%				no reduction				
SRA13Φ	-7%								
SRA26Φ				-4%		-17%			

Legend

% VALUE = BIOMASS/YIELD REDUCTION (-%) OR GAIN (+%) IN THE POT/FIELD TRIAL COMPARED TO THE UNTREATED

COMBINATION OF HERBICIDE BY VARIETY NOT TESTED

SLIGHT BIOMASS/YIELD REDUCTION IN POT/ FIELD TRIAL COMPARED TO UNTREATED

SEVERE BIOMASS/YIELD REDUCTION IN POT/ FIELD TRIAL COMPARED TO UNTREATED

NO BIOMASS/YIELD REDUCTION IN POT/ FIELD TRIAL COMPARED TO UNTREATED

MODERATE BIOMASS/YIELD REDUCTION IN POT/FIELD TRIAL COMPARED TO UNTREATED

VARIETY ADOPTION IN EACH MILL AREA

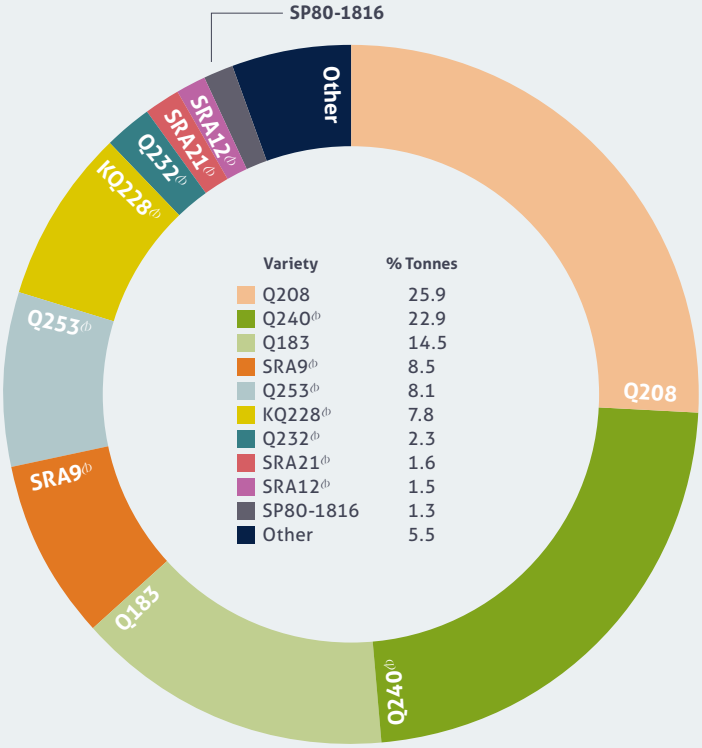
The following graphs are generated from mill statistics from the 2024 season. Use this information to assess yield performance of varieties over a number of years. Caution should be taken when comparing commercial performance of newer varieties (from plant and young ratoons) to older/established varieties (which include older ratoons).

Proserpine Mill (% TONNES 2024)

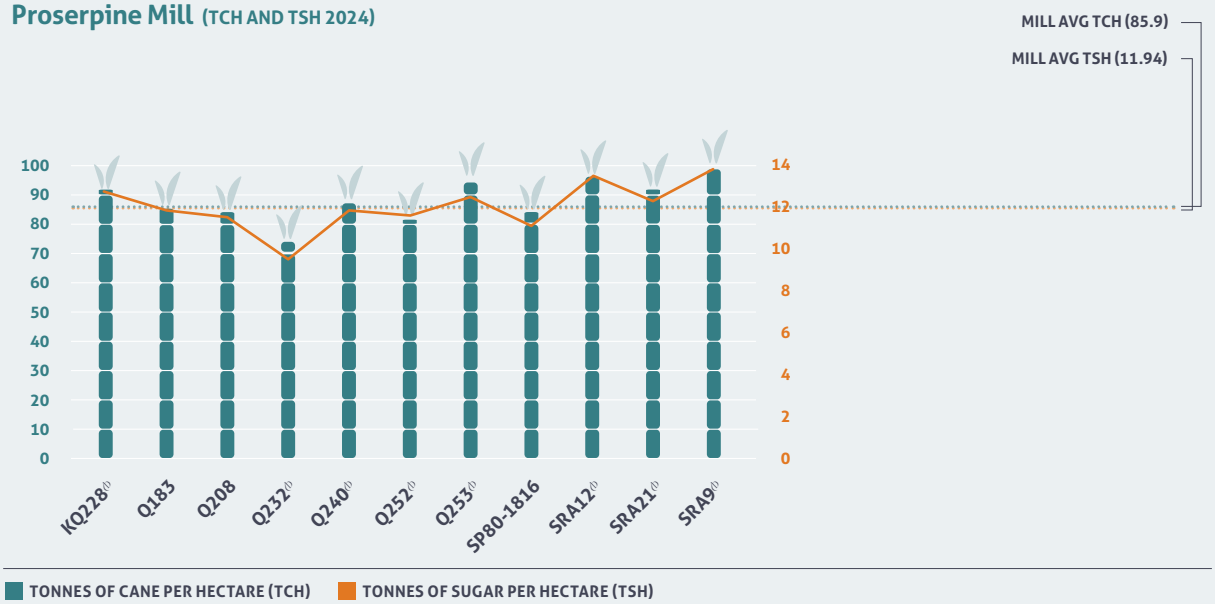
In 2024, the Proserpine Mill area harvested 1,673,864 tonnes of cane from 19,494 hectares, achieving an average yield of 86 T/Ha—a slight increase from 84 T/Ha in 2023. However, the mill's average CCS declined from 14.20 in 2023 to 13.83 in 2024.

Q208 was the district's highest-producing variety in 2024, accounting for 25.9% of the total crop. It was closely followed by Q240Φ at 22.9%, while Q183 remained the third most prevalent variety, contributing 14.5%, followed by SRA9Φ with 8.9%. Together, these four varieties comprised just under 72% of the district's total production.

Cane varieties that performed above mill average TSH and had more than 1% of total production were SRA9Φ, SRA12Φ, KQ228Φ, Q253Φ, SRA21Φ & Q183.



Proserpine Mill (TCH AND TSH 2024)

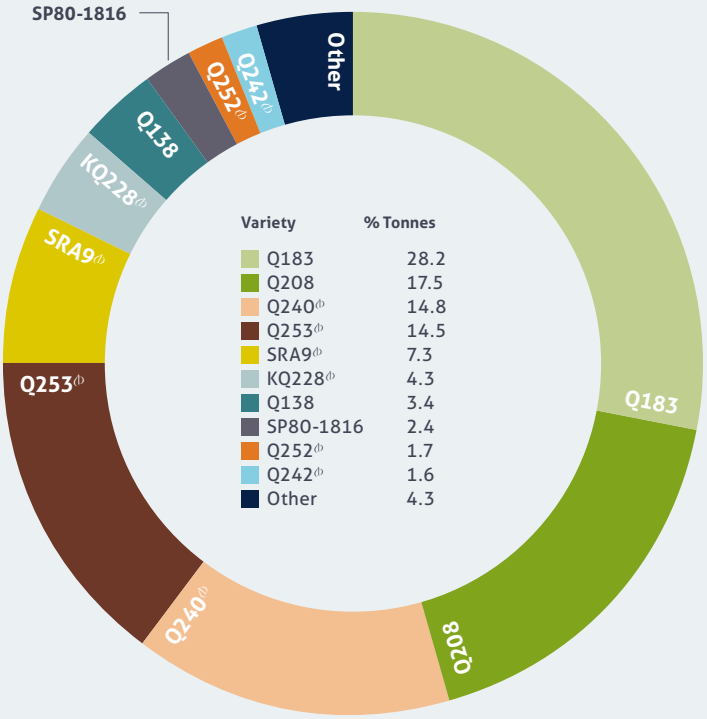


Plane Creek (% TONNES 2024)

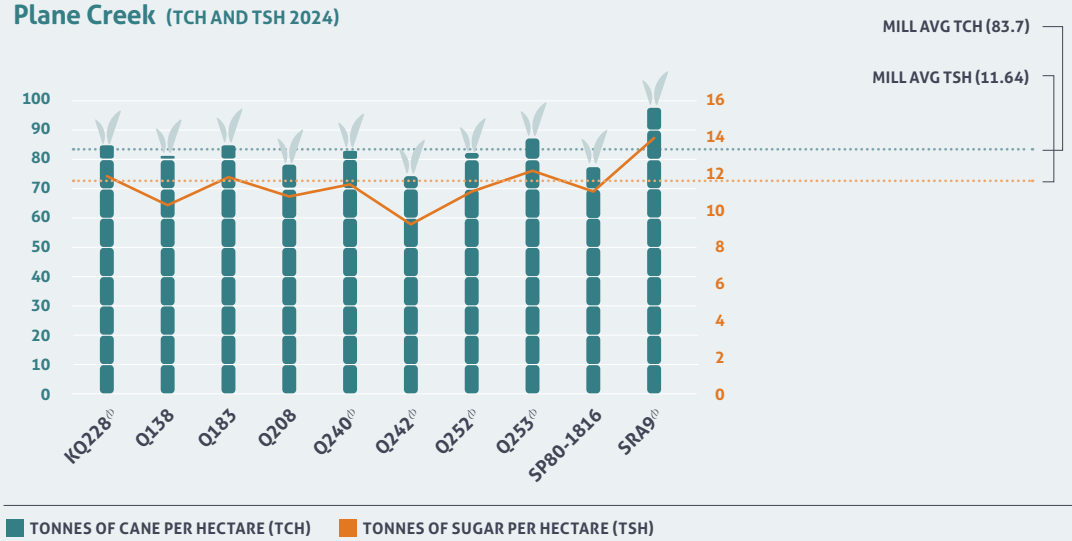
In 2024, the Plane Creek region harvested 1,301,379 tonnes of cane from 15,544 hectares, achieving an average yield of 84 tonnes per hectare (T/Ha), up from 80 T/Ha in 2023. The average CCS also saw a modest increase, rising to 13.85 from 13.69 the previous year.

Q183 remained the dominant variety, accounting for 28.2% of the crop. It was followed by Q208 (17.5%), Q240Φ (14.8%), and Q253Φ (14.5%). Collectively, these four varieties made up 75% of the region's total production in 2024.

The top performers with tonnes sugar per hectare higher than the mill average were SRA9Φ, Q253Φ, KQ228Φ, Q183, and Q240Φ.



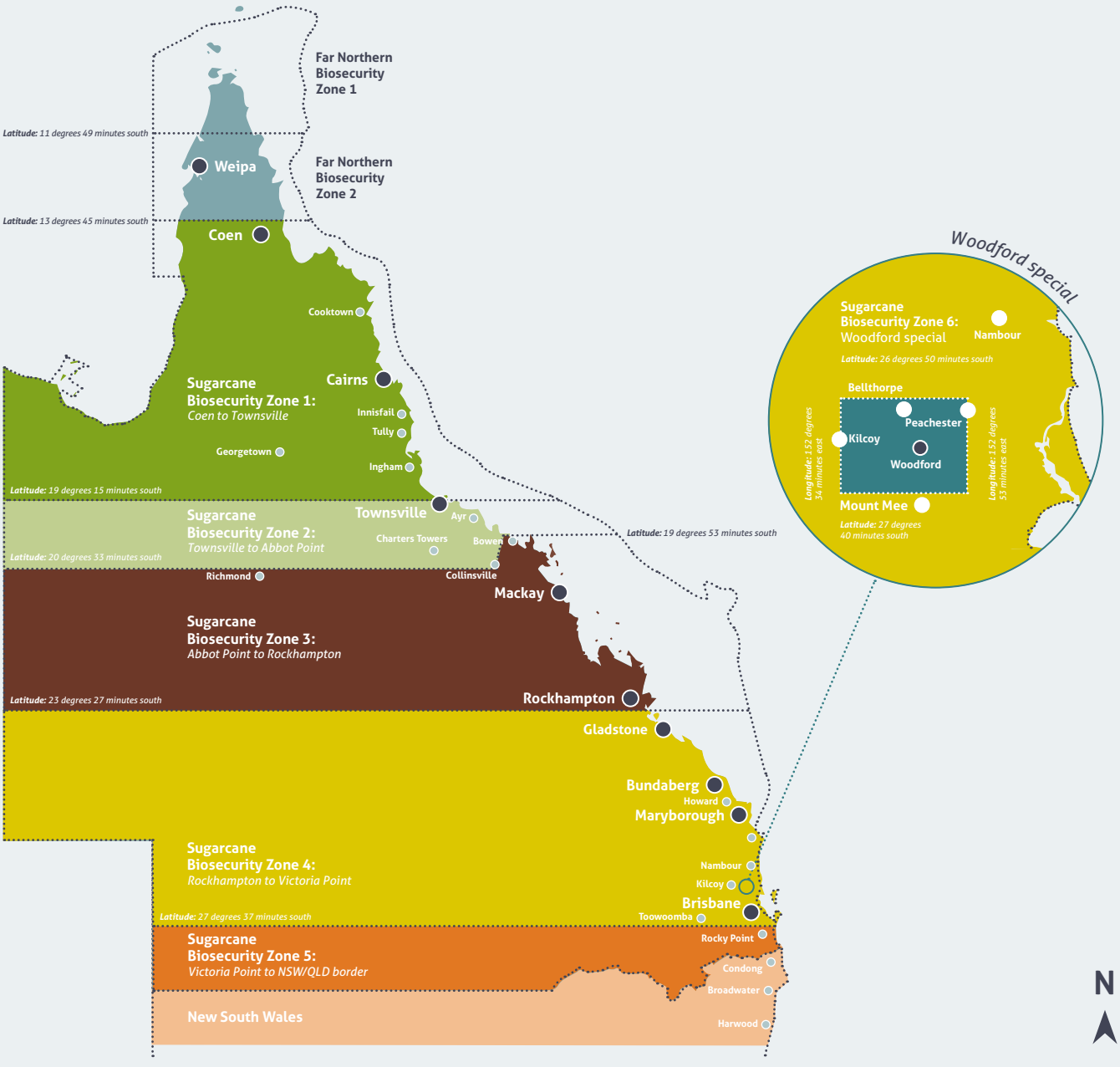
Plane Creek (TCH AND TSH 2024)



Mackay Sugar Mills

Data was not available at time of publishing this Variety Guide.

SUGARCANE BIOSECURITY ZONE MAP



- All appliances (harvesters and other sugarcane machinery) moving between sugarcane biosecurity zones must:
  - > be free of cane trash and soil
  - > be inspected by an authorised inspection person who will issue a Plant Health Assurance Certificate (PHAC)
  - > be accompanied during transportation by the PHAC
- Machinery moving from NSW to Qld requires a Plant Health Certificate issued by NSW Department of Primary Industries
- Machinery inspections can be arranged by contacting the local Productivity Service organisation
- To move sugarcane plants (stalks, leaves, potted plants, etc) between biosecurity zones contact Biosecurity Queensland (13 25 23).

PROPAGATING NEW VARIETIES

Contact your local productivity services organisation for regional advice on varieties (see back page for details). They can supply approved planting material of recommended varieties and place orders for tissue culture plantlets.

Billet planting

PLANT MATERIAL FROM AN APPROVED SEED SOURCE

Approved seed provides cane growers with the highest quality planting materials in terms of disease status and being 'true-to-type'. Approved seed (stalks, billets, setts or tissue culture plantlets used for planting) is a key control measure for systemic diseases of sugarcane, including chlorotic streak, Fiji leaf gall, leaf scald, mosaic, ratoon stunting disease (RSD) and smut. Provision of approved seed in each mill area in the Australian sugar industry is coordinated by SRA, in cooperation with the local productivity services group. SRA provides DNA fingerprinted new varieties which the local productivity services group then maintains and distributes the approved seed to growers.

GROW SUGARCANE SPECIFICALLY FOR PLANTING MATERIAL

The block selected for growing plant material should be weed-free and sugarcane volunteer-free. When selecting cane for planting material the cane should be less than one year old, erect and free from damage. Plan for two or more eyes per sett when harvesting for billets or stick planting. For non-irrigated regions plants should be well watered, have adequate nutrition immediately prior to harvest for billet planting. For irrigated regions you may need to reduce fertiliser rates, withhold irrigation, or plant late in the season. The cane should also have originated from an approved seed plot and therefore be no more than three years away from long hot water treatment.

The best "whole farm" disease risk minimisation and productivity strategies can be achieved through consistent access to approved seed. It is highly recommended that cane considered for use as planting material be RSD tested well in advanced of harvest so an informed choice can be made prior to planting.

SET UP THE HARVESTER FOR CUTTING HIGH QUALITY SOUND BILLETS

Rubber coating rollers and optimising the roller speeds to chopper speed will produce good quality billets with minimal split or crushed ends and damaged eyes. Reduce the speed of harvesting and maintain sharp basecutter and chopper blades for clean cutting. Disinfect the machinery used to cut and plant new varieties to limit the spread of disease and weeds.

Tissue culture

CALCULATE HOW MUCH TISSUE CULTURE TO ORDER

We've made it easier with our online tissue culture calculator. It demonstrates the speed at which large quantities of planting material can be produced from a set number of plantlets or for a set cost. Below is a look-up table including common results. The calculator is available on SRA's website. **Visit sugarresearch.com.au/calculator or scan the QR code.**

TRY TISSUE CULTURE AS AN APPROVED SEED SOURCE

Tissue culture is an excellent source of approved seed for all varieties and can help reduce the spread of serious diseases such as RSD, smut and Fiji leaf gall. Tissue-cultured plantings are more uniform and produce more sticks than conventional plantings so larger quantities of planting material are achieved the following year. This means earlier commercial-scale production of more productive new varieties can be achieved when using tissue culture.

STAGE	ORDER DEADLINE FOR SPRING PLANTING	ORDER DEADLINE FOR AUTUMN PLANTING
Grower finalises order. Productivity services group places order with SRA.	15 November 2025	1 July 2025
Productivity services group receives established plantlets from nursery and distributes to growers.	Delivery on agreed date between grower, productivity services group and nursery. Available in August 2026.	Delivery on agreed date between grower, productivity services group and nursery. Available in March 2026.

ESTIMATED COST AND TIME TO SCALE UP NEW VARIETY PRODUCTION USING TISSUE CULTURE

Yr 1	No. plantlets ordered	100	250	500	1000
	Approximate cost	$150	$375	$750	$1500
	Metre row planted @ 0.8m	80	200	400	800
Yr 2	Metre row available for planting	2400	6000	12000	24000
	Ha avail for planting @ 1.8m	0.4	1.1	2.2	4.3

For more information on *varieties*, contact:
SRA Central Variety Officer **Christopher Tom**
E CTom@sugarresearch.com.au **T** 0411 589 806

For more information on *tissue culture*, contact:
SRA Tissue Culture Laboratory Manager **Visu Wickramasinghe**
E VWickramasinghe@sugarresearch.com.au **T** 0429 390 217

PLANTING AND MANAGING TISSUE-CULTURED PLANTLETS IN THE FIELD

Planting

- Prepare soil to a fine tilth to ensure good soil/root contact.
- A seedling planter can be used if one is available, although hand planting small numbers is not a huge job. Plant them deep at the bottom of a drill to prevent stool tipping.
- Fill in after early growth.
- Plant the plantlets 50cm to 1m apart. A good distance is 80cm, which will allow tillering to produce a high number of sticks.

Irrigating

- Provision of water is the most critical factor for the successful establishment of tissue culture plantlets.
- Irrigate plantlets immediately after planting and monitor them to ensure they don't dry out over the first three weeks to get the roots well established.
- If you do not have access to flood or sprinkler irrigation a simple irrigation system can be set up using cheap drip tape and an in-line filter hooked up to your garden tap or water tank.

Weeds

Weed control is important for good establishment and growth.

- Ideally pre-irrigate the soil to germinate weeds, then apply a knock-down herbicide or cultivate just prior to planting to reduce the weed pressure on young plantlets.
- Allow at least one week after planting before applying pre-emergent herbicides, longer if planted into cold, wet soils, as the root system needs time to establish:
  - > Atradex® at 2.5kg/ha plus Dual Gold® at 1.5L/ha has been successfully applied over the top, for grass and broadleaf weed control.
  - > Do not use diuron as young plantlets are sensitive to this product.
- Sempra® at 100g/ha plus Activator at 200mL/100L for nutgrass. Both applications were sprayed over the top for nutgrass control.
- Do not use paraquat unless you have no other option and only on established plantings.

Insects

- If you expect problems with insects then an application of an insecticide drench (such as chlorpyrifos or imidacloprid) at planting will protect the young plantlets.
- In canegrub-prone areas use your standard grub control treatment.

Fertiliser

- Fertiliser requirements of the tissue cultured plantlets are the same as for billet plantings.
- If possible, plant with a planter mix to maintain good early growth, and side-dress later to avoid fertiliser burn.

Your local productivity services:

Mackay Area Productivity Services (MAPS):
T 07 4963 6830

Plane Creek Productivity Services Ltd:
T 07 4956 1488

Sugar Services Proserpine Ltd:
T 07 4945 0513

Sugar Research Australia Limited
ABN 16 163 670 068

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