



Variety Guide 2016/17

Southern and NSW regions 

How to use this guide

This guide is designed to help growers in the Southern and NSW canegrowing regions 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:

Which new varieties are available and how they performed in SRA trials

Pages 4-6

The disease resistance ratings of each variety

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Which varieties will better suit certain soil types

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When you should harvest a particular variety

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Which varieties are most suited to the environment on your farm

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Sugarcane Biosecurity Zone Map

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Planting & managing tissue-cultured plantlets in the field

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Managing the varieties on your farm is vital. By making informed choices this season you can make a positive difference to your farm productivity and profitability for the whole crop cycle. To help you make decisions about the best-suited varieties for your farm, use QCANSelect™ – our online variety decision-support tool. This tool is available on the SRA website www.sugarresearch.com.au

Propagating new varieties

Contact SRA Variety Development Officer **Rod Fletcher** on **0459 847 445**

Contact your local productivity services group for regional advice on varieties. They can supply clean planting material of recommended varieties and order tissue culture plantlets.

Plant material from an approved seed source

Approved-seed provides cane growers with disease-free seed of varieties that are true-to-type. Disease-free 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 disease-free or 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 a disease-free supply of DNA fingerprinted new varieties. The local productivity services group multiplies the new varieties, maintaining the disease-free status and distributes the approved seed to growers.

Grow sugarcane specifically for planting material

The block selected for growing plant material should be disease-free, weed-free and sugarcane volunteer-free. The cane should be erect with short internodes, so it will have at least two buds per sett when harvested for billets. This can be achieved through reduced fertiliser rates, withholding irrigation or planting late in the season. The cane should be less than one year old when harvesting for good quality billets and also be no more than three years away from hot water treatment.

Need to calculate how much tissue culture to order?

We've made it easier with our new 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 from the calculator (available at sugarresearch.com.au).

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 minimum 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 in harvesting when planting new varieties to limit the spread of disease and weeds.

Try tissue culture as an approved clean seed source

Tissue culture is an excellent source of clean seed for all varieties and can help reduce the spread of serious diseases such as ratoon stunting disease, 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. 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 2016	1 July 2017
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 2017.	Delivery on agreed date between grower, productivity services group and nursery. Available in March 2018.

Year 1	Number of plantlets ordered Year 1	100	250	500	1 000
	Approximate cost Year 1	\$150	\$375	\$750	\$1 500
	Metres of row planted in Year 1 at 0.8m plant spacing	80	200	400	800
Year 2	Metres of row able to be planted in Year 2	2 400	6 000	12 000	24 000
	Hectares able to be planted in Year 2 at 1.8m row spacing	0.4	1.1	2.2	4.3

New varieties available in the Southern region



Presented below are the latest results of trials conducted in the Southern region. The mean yield and CCS of each variety is compared to the average yield and CCS of the standard varieties in the trials (shown in the brackets).

Variety: SRA4^ϕ

Parentage: Q138 x QS87-7427 | Average tonnes, average CCS

Trial harvest date	Crop class	Yield (tonnes cane/ha)	CCS	Number of trials
2011	Plant	70 (67)	15.7 (15.7)	4
2012	1 st Ratoon	120 (115)	17.2 (16.8)	4
2013	2 nd Ratoon	94 (88)	17.2 (17.0)	4
2014	3 rd Ratoon	107 (99)	15.3 (15.0)	2
2015	4 th Ratoon	82 (77)	16.0 (15.7)	1
Average of all harvests		96 (90)	16.5 (16.2)	15

Standard varieties used in these trials: Q151^ϕ, Q155^ϕ, Q208^ϕ, KQ228^ϕ, Q232^ϕ, Q240^ϕ

Available: 2016

Comments: 2003/2010 FAT series, only 2010 series data shown, Good disease resistance (fiji leaf gall, leaf scald, mosaic, orange rust, pachymetra, red rot), good ratooning, high short fibre percentage.

Variety: Q247^ϕ

Parentage: Q138 x Q155^ϕ | Average tonnes, average CCS

Trial harvest date	Crop class	Yield (tonnes cane/ha)	CCS	Number of trials
2012	Plant	105 (100)	16.1 (15.7)	4
2013	1 st Ratoon	107 (103)	17.3 (17.1)	4
2014	2 nd Ratoon	109 (108)	16.3 (16.0)	4
2015	3 rd Ratoon	111 (111)	18.3 (17.7)	3
2014	Plant	76 (72)	15.3 (14.2)	4
2015	1 st Ratoon	94 (94)	17.6 (16.8)	4
Average of all harvests		100 (97)	16.7 (16.2)	23

Standard varieties used in these trials: Q151^ϕ, Q155^ϕ, Q208^ϕ, KQ228^ϕ, Q232^ϕ, Q240^ϕ, Q242^ϕ

Available: 2016

Comments: 2011/2013 FAT series, pachymetra and fiji leaf gall resistant, early harvest, need to manage RSD.

Recently released varieties available in the NSW region

Presented below are the latest results of trials conducted in the NSW region. The mean yield and CCS of each variety is compared to the average yield and CCS of the standard varieties in the trials (shown in the brackets).

Variety: SRA1[Ⓛ]

Parentage: QN86-2139 x QC90-289 | High tonnes, high CCS

Trial harvest date	Crop class	Yield (tonnes cane/ha)	CCS	Number of trials
2011	Plant	53 (46)	12.9 (12.6)	2
2012	1 st Ratoon	68 (62)	15.7 (15.4)	2
2013	2 nd Ratoon	77 (66)	17.0 (16.4)	2
2015	4 th Ratoon	82 (88)	15.3 (14.4)	1
2013	Plant	66 (44)	16.6 (15.8)	2
2014	1 st Ratoon	124 (108)	15.5 (14.9)	2
2015	2 nd Ratoon	91 (87)	14.6 (13.8)	2
Average of all harvests		80 (70)	15.4 (14.8)	13

Standard varieties used in these trials: BN81-1394, EMPIRE, Q151[Ⓛ], Q188[Ⓛ], Q200[Ⓛ], Q203[Ⓛ], Q208[Ⓛ], Q210[Ⓛ], Q211[Ⓛ], Q212[Ⓛ], KQ228[Ⓛ]

Comments: 2010/2012 FAT series; released as 1-year variety (1-year data shown).

Variety: SRA2[Ⓛ]

Parentage: QS92-206 x QS87-7430 | High tonnes, high CCS

Trial harvest date	Crop class	Yield (tonnes cane/ha)	CCS	Number of trials
2010	Plant	103 (91)	12.9 (12.4)	2
2011	1 st Ratoon	48 (40)	11.0 (10.6)	1
2012	2 nd Ratoon	97 (76)	15.4 (15.0)	1
2013	Plant	49 (44)	16.7 (15.8)	2
2014	1 st Ratoon	112 (108)	16.0 (14.9)	2
2015	2 nd Ratoon	91 (87)	14.3 (13.8)	2
2014	Plant	93 (81)	11.8 (11.8)	2
2015	1 st Ratoon	150 (133)	13.9 (13.7)	2
Average of all harvests		96 (86)	14.1 (13.6)	14

Standard varieties used in these trials: BN81-1394, Q188[Ⓛ], Q193[Ⓛ], Q200[Ⓛ], Q211[Ⓛ], Q203[Ⓛ], Q205[Ⓛ], Q208[Ⓛ], Q210[Ⓛ], KQ228[Ⓛ]

Comments: 2009/2012/2013 FAT series; released as 1-year variety (1-year data shown).

Recently released varieties available in the NSW region (cont.)

Presented below are the latest results of trials conducted in the NSW region. The mean yield and CCS of each variety is compared to the average yield and CCS of the standard varieties in the trials (shown in the brackets).

Variety: Q252^ϕ

Parentage: Q208^ϕ x Q96 | High tonnes, average CCS

Trial harvest date	Crop class	Yield (tonnes cane/ha)	CCS	Number of trials
2011	Plant	50 (46)	12.5 (12.6)	2
2012	1 st Ratoon	66 (62)	14.7 (15.4)	2
2013	2 nd Ratoon	70 (66)	15.9 (16.4)	2
2015	4 th Ratoon	105 (88)	13.1 (14.4)	1
2013	Plant	53 (44)	16.1 (15.8)	2
2014	1 st Ratoon	107 (108)	15.3 (14.9)	2
2015	2 nd Ratoon	82 (87)	13.5 (13.8)	2
2014	Plant	99 (84)	11.9 (11.8)	2
2015	1 st Ratoon	142 (133)	13.9 (13.7)	2
Average of all harvests		85 (79)	14.2 (14.3)	17

Standard varieties used in these trials: BN81-1394, EMPIRE, Q151^ϕ, Q188^ϕ, Q200^ϕ, Q203^ϕ, Q208^ϕ, Q210^ϕ, Q211^ϕ, Q212^ϕ, KQ228^ϕ

Comments: 2010/2012/2013 FAT series; released as 1-year variety (1-year data shown).

The Variety Approval Committees (VAC) play an integral role in deciding which new varieties will be released each year to the productivity service groups for distribution to growers. The VAC includes invited representatives, both directors and field staff, from the regional productivity services groups, milling companies, regional grower groups. This year the Southern VAC released one new variety (SRA₄^ϕ) and approved one current variety Q247^ϕ. The NSW region VAC did not release any new varieties.



Soil recommendations



The varieties are listed in order of recommendation for each soil type. The first variety listed is the highest recommendation. Please refer to your farm soil map, available from your local productivity services group. A soil-specific nutrient management guideline booklet is available for the South Johnstone district on the SRA website sugarresearch.com.au

Bundaberg and Isis

Soil class	Recommended varieties
Black clay	SRA2 [Ⓛ] , SRA1 [Ⓛ] , Q242 [Ⓛ] , Q240 [Ⓛ] , Q208 [Ⓛ] , Q252 [Ⓛ] , KQ228 [Ⓛ] , Q245 [Ⓛ]
Brown volcanic	SRA2 [Ⓛ] , SRA1 [Ⓛ] , Q238 [Ⓛ] , Q240 [Ⓛ] , Q252 [Ⓛ] , Q242 [Ⓛ] , Q245 [Ⓛ] , Q183 [Ⓛ]
Grey forest	Q232 [Ⓛ] , SRA2 [Ⓛ] , SRA1 [Ⓛ] , Q238 [Ⓛ] , Q240 [Ⓛ] , Q252 [Ⓛ] , Q245 [Ⓛ] , Q242 [Ⓛ]
Heavy alluvials	SRA2 [Ⓛ] , SRA1 [Ⓛ] , Q242 [Ⓛ] , Q240 [Ⓛ] , KQ228 [Ⓛ] , Q208 [Ⓛ] , Q252 [Ⓛ] , Q238 [Ⓛ]
Light alluvials	Q238 [Ⓛ] , KQ228 [Ⓛ] , SRA2 [Ⓛ] , SRA1 [Ⓛ] , Q245 [Ⓛ] , Q240 [Ⓛ] , Q252 [Ⓛ] , Q242 [Ⓛ]
Poor grey forest and sands	SRA2 [Ⓛ] , SRA1 [Ⓛ] , Q245 [Ⓛ] , Q238 [Ⓛ] , Q240 [Ⓛ] , Q252 [Ⓛ] , Q242 [Ⓛ] , Q232 [Ⓛ]
Red forest	SRA2 [Ⓛ] , SRA1 [Ⓛ] , Q240 [Ⓛ] , Q232 [Ⓛ] , KQ228 [Ⓛ] , Q208 [Ⓛ] , Q252 [Ⓛ] , Q242 [Ⓛ]
Red volcanic	SRA2 [Ⓛ] , SRA1 [Ⓛ] , Q240 [Ⓛ] , KQ228 [Ⓛ] , Q252 [Ⓛ] , Q238 [Ⓛ] , Q200 [Ⓛ] , Q208 [Ⓛ]

Maryborough

Soil class	Recommended varieties
Black clay	SRA1 [Ⓛ] , SRA2 [Ⓛ] , Q252 [Ⓛ] , Q240 [Ⓛ] , Q208 [Ⓛ] , SRA4 [Ⓛ] , Q238 [Ⓛ] , Q232 [Ⓛ]
Grey forest	SRA1 [Ⓛ] , Q252 [Ⓛ] , SRA4 [Ⓛ] , SRA2 [Ⓛ] , Q238 [Ⓛ] , Q208 [Ⓛ] , Q138, Q247 [Ⓛ]
Hard setting scrub soil	SRA1 [Ⓛ] , Q252 [Ⓛ] , SRA4 [Ⓛ] , SRA2 [Ⓛ] , Q249 [Ⓛ] , Q242 [Ⓛ] , Q232 [Ⓛ] , Q208 [Ⓛ]
Heavy alluvials	SRA1 [Ⓛ] , SRA2 [Ⓛ] , Q252 [Ⓛ] , Q238 [Ⓛ] , Q240 [Ⓛ] , SRA4 [Ⓛ] , Q232 [Ⓛ] , Q208 [Ⓛ]
Light alluvials	SRA1 [Ⓛ] , SRA2 [Ⓛ] , Q252 [Ⓛ] , Q238 [Ⓛ] , Q240 [Ⓛ] , SRA4 [Ⓛ] , Q208 [Ⓛ] , Q247 [Ⓛ]
Red clay	SRA1 [Ⓛ] , SRA2 [Ⓛ] , Q252 [Ⓛ] , Q232 [Ⓛ] , SRA4 [Ⓛ] , Q238 [Ⓛ] , Q240 [Ⓛ] , Q208 [Ⓛ]
Red forest	SRA1 [Ⓛ] , SRA2 [Ⓛ] , Q252 [Ⓛ] , Q238 [Ⓛ] , SRA4 [Ⓛ] , Q240 [Ⓛ] , Q208 [Ⓛ] , Q247 [Ⓛ]
Scrub soil	SRA1 [Ⓛ] , SRA2 [Ⓛ] , Q252 [Ⓛ] , SRA4 [Ⓛ] , Q208 [Ⓛ] , Q247 [Ⓛ]
Wallum	SRA1 [Ⓛ] , Q252 [Ⓛ] , SRA4 [Ⓛ] , SRA2 [Ⓛ] , Q249 [Ⓛ] , Q242 [Ⓛ] , Q208 [Ⓛ] , Q247 [Ⓛ]

Rocky Point

Soil class	Recommended varieties
Clay	SRA1 [Ⓛ] , Q240 [Ⓛ] , Q232 [Ⓛ] , SRA2 [Ⓛ] , Q238 [Ⓛ] , KQ228 [Ⓛ] , Q208 [Ⓛ] , SRA4 [Ⓛ]
Peat/loam	SRA1 [Ⓛ] , Q240 [Ⓛ] , Q183 [Ⓛ] , Q208 [Ⓛ] , SRA2 [Ⓛ] , Q238 [Ⓛ] , Q232 [Ⓛ] , KQ228 [Ⓛ]
Sand	SRA1 [Ⓛ] , Q232 [Ⓛ] , SRA2 [Ⓛ] , Q242 [Ⓛ] , Q138, Q238 [Ⓛ] , Q240 [Ⓛ] , SRA4 [Ⓛ]

Condong

Soil class	Recommended varieties
Clay loam	Q208 [Ⓛ] , SRA2 [Ⓛ] , SRA1 [Ⓛ] , Q252 [Ⓛ] , KQ228 [Ⓛ] , Q211 [Ⓛ] , Q155, Q183 [Ⓛ]
Peat loam	Q208 [Ⓛ] , Q211 [Ⓛ] , SRA2 [Ⓛ] , SRA1 [Ⓛ] , Q252 [Ⓛ] , Q242 [Ⓛ] , KQ228 [Ⓛ] , Q183 [Ⓛ]
Sandy soils	Q208 [Ⓛ] , SRA2 [Ⓛ] , SRA1 [Ⓛ] , Q252 [Ⓛ] , Q190 [Ⓛ] , Q211 [Ⓛ] , Q242 [Ⓛ] , Q235 [Ⓛ]

Broadwater

Soil class	Recommended varieties
High quality soils	Q240 [Ⓛ] , Q208 [Ⓛ] , EMPIRE, Q200 [Ⓛ] , Q252 [Ⓛ] , Q254 [Ⓛ] , Q244 [Ⓛ] , Q235 [Ⓛ]
Medium quality soils	Q208 [Ⓛ] , Q252 [Ⓛ] , Q254 [Ⓛ] , Q242 [Ⓛ] , Q232 [Ⓛ] , Q203 [Ⓛ] , Q183 [Ⓛ] , Q240 [Ⓛ]
Sandy soils	BN83-3120, Q252 [Ⓛ] , Q242 [Ⓛ] , Q190 [Ⓛ] , ARRIS, Q183 [Ⓛ] , Q208 [Ⓛ] , Q193 [Ⓛ]

Harwood

Soil class	Recommended varieties
High quality soils	Q240 [Ⓛ] , Q208 [Ⓛ] , EMPIRE, SRA1 [Ⓛ] , Q252 [Ⓛ] , Q244 [Ⓛ] , Q235 [Ⓛ] , Q232 [Ⓛ]
Medium quality soils	Q208 [Ⓛ] , SRA1 [Ⓛ] , Q252 [Ⓛ] , Q232 [Ⓛ] , KQ228 [Ⓛ] , Q203 [Ⓛ] , Q183 [Ⓛ] , QC75-326
Poor quality soils	BN83-3120, SRA1 [Ⓛ] , Q252 [Ⓛ] , Q242 [Ⓛ] , ARRIS, Q203 [Ⓛ] , Q183 [Ⓛ] , Q254 [Ⓛ]

Harvest management

Select varieties for a harvest plan that can be followed to maintain maximum CCS throughout the year.

The charts below indicate early, mid or late sugar varieties.

Bundaberg and Isis

Variety	Early sugar	Mid sugar	Late sugar
SRA4 [Ⓛ]	Average	Average	Average
SRA2 [Ⓛ]	Good	Good	Good
SRA1 [Ⓛ]	Good	Good	Good
QS05-6092	NA	NA	NA
Q252 [Ⓛ]	Good	Good	Good
Q249 [Ⓛ]	Average	Average	Good
Q247 [Ⓛ]	Good	Good	Average
Q245 [Ⓛ]	Poor	Average	Average
Q242 [Ⓛ]	Average	Average	Average
Q240 [Ⓛ]	Good	Good	Good
Q238 [Ⓛ]	Poor	Average	Average
Q235 [Ⓛ]	Good	Good	Average
Q232 [Ⓛ]	Poor	Poor	Average
KQ228 [Ⓛ]	Good	Good	Average
Q208 [Ⓛ]	Average	Good	Good
Q200 [Ⓛ]	Average	Average	Good
Q183 [Ⓛ]	Average	Average	Good
Q151 [Ⓛ]	Good	Average	Poor
Q138	Poor	Poor	Poor

Maryborough

Variety	Early sugar	Mid sugar	Late sugar
SRA4 [Ⓛ]	Average	Average	Average
SRA2 [Ⓛ]	Good	Good	Good
SRA1 [Ⓛ]	Good	Good	Good
QS05-6092	NA	NA	NA
Q252 [Ⓛ]	Good	Good	Good
Q249 [Ⓛ]	Average	Average	Good
Q247 [Ⓛ]	Good	Good	Average
Q242 [Ⓛ]	Average	Average	Average
Q240 [Ⓛ]	Good	Good	Good
Q238 [Ⓛ]	Average	Average	Average
Q235 [Ⓛ]	Good	Average	Average
Q232 [Ⓛ]	Poor	Poor	Average
KQ228 [Ⓛ]	Good	Good	Average
Q208 [Ⓛ]	Average	Good	Good
Q138	Average	Average	Average

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.

Harvest management (cont.)



Select varieties for a harvest plan that can be followed to maintain maximum CCS throughout the year. The charts below indicate early, mid or late sugar varieties.

Rocky Point

Variety	Early sugar	Mid sugar	Late sugar
SRA4 [Ⓛ]	Average	Average	Average
SRA2 [Ⓛ]	Good	Good	Average
SRA1 [Ⓛ]	Good	Good	Good
QS05-6092	NA	NA	NA
Q252 [Ⓛ]	Good	Good	Good
Q249 [Ⓛ]	Average	Average	Average
Q247 [Ⓛ]	Good	Good	Average
Q245 [Ⓛ]	Poor	Average	Average
Q242 [Ⓛ]	Good	Good	Good
Q240 [Ⓛ]	Good	Good	Good
Q238 [Ⓛ]	Average	Good	Good
Q232 [Ⓛ]	Average	Average	Average
KQ228 [Ⓛ]	Good	Good	Average
Q208 [Ⓛ]	Good	Good	Good
Q183 [Ⓛ]	Average	Good	Good
Q155 [Ⓛ]	Good	Good	Good
Q138	Average	Average	Average

NSW

Variety	Early sugar	Mid sugar	Late sugar
SRA2 [Ⓛ]	Good	Good	Good
SRA1 [Ⓛ]	Good	Good	Good
SP79-2313	Poor	Average	Average
RB72-454	Average	Average	Average
QC75-326	Average	Average	Poor
Q254 [Ⓛ]	Average	Average	Average
Q252 [Ⓛ]	Average	Average	Average
Q244 [Ⓛ]	Good	Good	Average
Q243 [Ⓛ]	Average	Good	Good
Q242 [Ⓛ]	Good	Average	Average
Q240 [Ⓛ]	Good	Good	Good
Q235 [Ⓛ]	Good	Good	Good
Q234 [Ⓛ]	Good	Good	Good
Q232 [Ⓛ]	Average	Average	Good
KQ228 [Ⓛ]	Good	Average	Poor
Q212 [Ⓛ]	Poor	Average	Average
Q211 [Ⓛ]	Good	Good	Average
Q210 [Ⓛ]	Average	Good	Good
Q208 [Ⓛ]	Good	Good	Good
Q203 [Ⓛ]	Average	Average	Average
Q200 [Ⓛ]	Good	Good	Good
Q193 [Ⓛ]	Good	Good	Average
Q190 [Ⓛ]	Average	Average	Average
Q188 [Ⓛ]	Average	Average	Average
Q183 [Ⓛ]	Average	Average	Average
Q167 [Ⓛ]	Poor	Average	Average
Q155 [Ⓛ]	Good	Good	Good
Q124	Average	Good	Good
EMPIRE	Average	Good	Good
BN88-3345	Poor	Average	Average
BN83-3120	Poor	Poor	Poor
BN81-1394	Average	Average	Average
BN73-3416	Good	Good	Average
ARRIS	Poor	Poor	Average

Variety management

This chart is useful for matching a variety to a particular field situation. For example, if a field has a drainage problem, then select a variety with some tolerance to waterlogging.

Bundaberg and Isis

Variety	Fast and reliable ratooning	Drought tolerance	Tolerance to waterlogging	Frost tolerance	Flowering	Speed of germination	Reliability of germination
SRA4 [♢]	Good	Unknown	Unknown	Unknown	Sparse	Rapid	Good
SRA2 [♢]	Good	Unknown	Unknown	Unknown	Heavy	Average	Average
SRA1 [♢]	Good	Average	Average	Unknown	Moderate	Rapid	Good
Q252 [♢]	Average	Unknown	Unknown	Unknown	Moderate	Average	Good
Q249 [♢]	Average	Unknown	Unknown	Unknown	Sparse	Average	Good
Q247 [♢]	Average	Unknown	Unknown	Unknown	Sparse	Slow	Good
Q245 [♢]	Good	Good	Average	Poor	Moderate	Slow	Average
Q242 [♢]	Good	Poor	Average	Average	Moderate	Rapid	Good
Q240 [♢]	Good	Average	Average	Good	Sparse	Rapid	Good
Q238 [♢]	Good	Average	Poor	Poor	Moderate	Average	Average
Q235 [♢]	Average	Average	Average	Unknown	Heavy	Average	Good
Q232 [♢]	Good	Average	Average	Poor	Heavy	Average	Average
KQ228 [♢]	Average	Poor	Average	Average	Sparse	Rapid	Good
Q208 [♢]	Average	Average	Average	Average	Moderate	Slow	Average
Q200 [♢]	Average	Poor	Average	Poor	Sparse	Average	Good
Q183 [♢]	Good	Poor	Average	Average	Sparse	Rapid	Good
Q151 [♢]	Good	Poor	Average	Average	Moderate	Rapid	Good
Q138	Good	Good	Good	Poor	Moderate	Average	Good



Maryborough

Variety	Fast and reliable ratooning	Drought tolerance	Tolerance to waterlogging	Frost tolerance	Flowering	Speed of germination	Reliability of germination
SRA4 [♢]	Good	Unknown	Unknown	Unknown	Sparse	Rapid	Good
SRA2 [♢]	Good	Unknown	Unknown	Unknown	Heavy	Average	Average
SRA1 [♢]	Good	Average	Average	Unknown	Moderate	Rapid	Good
Q252 [♢]	Average	Unknown	Unknown	Unknown	Moderate	Average	Good
Q249 [♢]	Average	Average	Unknown	Unknown	Sparse	Average	Good
Q247 [♢]	Average	Unknown	Unknown	Unknown	Sparse	Slow	Good
Q242 [♢]	Good	Poor	Good	Good	Moderate	Rapid	Good
Q240 [♢]	Good	Average	Good	Good	Sparse	Rapid	Good
Q238 [♢]	Good	Average	Average	Poor	Moderate	Average	Average
Q235 [♢]	Average	Average	Unknown	Unknown	Heavy	Average	Good
Q232 [♢]	Good	Average	Average	Average	Heavy	Average	Average
KQ228 [♢]	Average	Poor	Average	Average	Sparse	Rapid	Good
Q208 [♢]	Average	Good	Average	Average	Moderate	Slow	Average
Q138	Good	Good	Good	Poor	Moderate	Average	Good

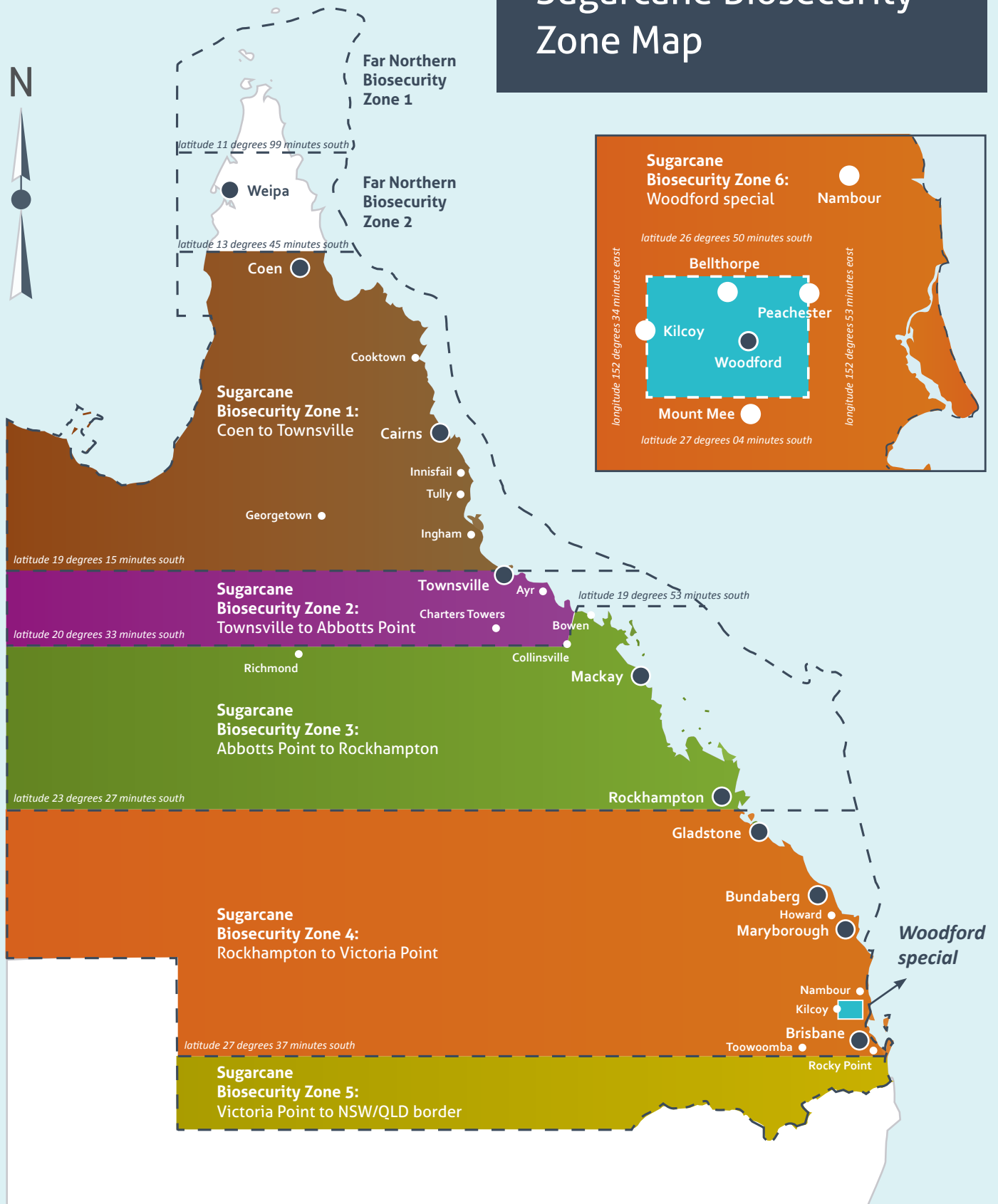
Rocky Point

Variety	Trash yield	Fast and reliable germination	Fast and reliable ratooning in good conditions	Fast and reliable ratooning in harsh conditions	Drought Tolerance	Tolerance to waterlogging	Frost tolerance	Flowering	Standover suitability
SRA4 [♢]	Medium-High	Good	Good	Good	Unknown	Unknown	Unknown	Sparse	Unknown
SRA2 [♢]	Medium	Average	Good	Unknown	Unknown	Unknown	Unknown	Heavy	Unknown
SRA1 [♢]	Low-Medium	Good	Good	Unknown	Unknown	Unknown	Unknown	Moderate	Unknown
Q252 [♢]	Low	Average	Average	Average	Unknown	Unknown	Unknown	Moderate	Average
Q249 [♢]	Medium	Average	Average	Average	Unknown	Unknown	Unknown	Sparse	Average
Q247 [♢]	NA	Average	NA	Unknown	Unknown	Unknown	Unknown	Sparse	NA
Q245 [♢]	Medium	Average	Average	Average	Average	Average	Poor	Moderate	Average
Q242 [♢]	Medium-High	Average	Good	Average	Poor	Good	Average	Moderate	Average
Q240 [♢]	Low-Medium	Average	Good	Good	Average	Good	Good	Sparse	Good
Q238 [♢]	Medium	Average	Good	Good	Poor	Average	Poor	Moderate	Good
Q232 [♢]	High	Average	Good	Average	Average	Average	Average	Heavy	Good
KQ228 [♢]	Medium-High	Good	Good	Average	Average	Average	Average	Sparse	Average
Q208 [♢]	Low	Average	Good	Average	Average	Good	Average	Moderate	Good
Q183 [♢]	Low-Medium	Good	Average	Average	Poor	Poor	Average	Sparse	Good
Q155 [♢]	Medium-High	Good	Average	Average	Poor	Average	Average	Sparse	Good
Q138	High	Good	Good	Good	Good	Good	Average	Moderate	Good

NSW

Variety	Fast and reliable germination	Drought tolerance	Tolerance to waterlogging	Frost tolerance	Flowering	Crop age	Ratooning after early harvest	Ratooning under wet conditions
SRA2 [♢]	Average	Unknown	Unknown	Unknown	Unknown	1 Year	Good	Unknown
SRA1 [♢]	Good	Unknown	Unknown	Unknown	Unknown	1 Year	Good	Unknown
SP79-2313	Good	Good	Average	Poor	Sparse	2 Year	Average	Average
RB72-454	Good	Average	Average	Poor	Sparse	1 or 2 Years	Good	Average
QC75-326	Average	Average	Good	Average	Sparse	2 Year	Good	Average
Q254 [♢]	Good	Average	Unknown	Unknown	Sparse	1 or 2 Years	Unknown	Unknown
Q252 [♢]	Average	Unknown	Unknown	Unknown	Sparse	1 Year	Good	Good
Q244 [♢]	Average	Average	Average	Average	Sparse	1 or 2 Years	Average	Average
Q243 [♢]	Good	Average	Average	Average	Sparse	1 or 2 Years	Average	Average
Q242 [♢]	Good	Average	Average	Average	Moderate	1 or 2 Years	Average	Average
Q240 [♢]	Good	Average	Poor	Good	Sparse	1 or 2 Years	Average	Good
Q235 [♢]	Good	Good	Average	Average	Moderate	1 or 2 Years	Average	Average
Q234 [♢]	Good	Poor	Average	Poor	Sparse	1 or 2 Years	Average	Poor
Q232 [♢]	Average	Average	Good	Good	Heavy	1 or 2 Years	Good	Good
KQ228 [♢]	Good	Average	Average	Average	Moderate	1 or 2 Years	Good	Good
Q212 [♢]	Good	Average	Average	Poor	Sparse	1 or 2 Years	Average	Average
Q211 [♢]	Average	Average	Average	Average	Sparse	1 or 2 Years	Good	Average
Q210 [♢]	Good	Average	Average	Average	Sparse	1 or 2 Years	Good	Poor
Q208 [♢]	Average	Good	Good	Average	Sparse	1 or 2 Years	Good	Good
Q203 [♢]	Good	Average	Poor	Good	Moderate	1 or 2 Years	Good	Poor
Q200 [♢]	Good	Poor	Average	Poor	Sparse	1 or 2 Years	Average	Average
Q193 [♢]	Good	Average	Average	Average	Heavy	1 or 2 Years	Good	Good
Q190 [♢]	Good	Average	Poor	Poor	Sparse	1 or 2 Years	Average	Poor
Q188 [♢]	Average	Average	Poor	Average	Heavy	1 or 2 Years	Poor	Poor
Q183 [♢]	Good	Poor	Average	Average	Sparse	1 or 2 Years	Average	Average
Q167 [♢]	Average	Average	Poor	Good	Sparse	1 or 2 Years	Good	Good
Q155 [♢]	Average	Average	Poor	Average	Sparse	1 or 2 Years	Good	Average
Q124	Average	Good	Average	Average	Sparse	1 or 2 Years	Average	Average
EMPIRE	Average	Average	Average	Average	Moderate	1 or 2 Years	Average	Poor
BN88-3345	Average	Average	Average	Average	Sparse	1 or 2 Years	Average	Average
BN83-3120	Good	Average	Good	Good	Heavy	2 Year	Good	Good
BN81-1394	Average	Average	Poor	Good	Sparse	1 or 2 Years	Good	Average
BN73-3416	Average	Average	Poor	Average	Sparse	2 Year	Average	Poor
ARRIS	Good	Good	Good	Average	Sparse	2 Year	Average	Average

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 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).

Planting & 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 500 mm to 1 m apart. A good distance is 800 mm, which will allow stooling out 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 tanker.

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.

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.
- Pre-emergent herbicides can be used.
- Do not use diuron as young plantlets are sensitive to this product.
- Do not use paraquat unless you have no other option and only on established plantings.
- Established plantlets can be treated with the same chemicals as the ratoons on your farm. Label rates of S-metolachlor plus atrazine have been applied successfully over the top after planting. For example, in SRA field trials we used Atradex® at 2.5 kg/ha plus Dual Gold® at 1.5 L/ha for grasses and broadleaf weeds and also Sempra® at 100 g/ha plus Activator at 200 mL/100 L for nutgrass. Both applications were sprayed over the top after planting.

QCANESelect™

- **Using sugarcane varieties that are best-suited to your crop may help maximise its productivity and profitability.**
- **QCANESelect™ is an online tool that allows you to review, compare and select varieties for use on each block on your farm.**
- **To access QCANESelect™ and the tissue culture calculator visit the SRA website www.sugarresearch.com.au**
- The information in QCANESelect™ is updated regularly based on our most recent trials and from observations and experiences of varieties that are growing in the field.
- Once you have identified the best varieties for planting on your farm, contact your local productivity services group to place orders for tissue-cultured plantlets.



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