



Sugar Research  
Australia



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# Variety Guide 2014/15

Burdekin and Central regions

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## How to use this guide

This guide is designed to help growers in the Burdekin and Central 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:

**1** Which new varieties are available and how they performed in SRA trials  
Pages 3-4

**2** The disease resistance ratings of each variety  
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**3** Which varieties will better suit certain soil types  
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**4** When you should harvest a particular variety  
Page 7

**5** Which varieties are most suited to the environment on your farm  
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**6** Which varieties have performed well over the last few seasons  
Pages 9-10

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 QCANESelect™ – our online variety decision-support tool. This tool is available on the SRA website [www.sugarresearch.com.au](http://www.sugarresearch.com.au)

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**SRA Variety Development Officers:** Rod Fletcher on 0459 847 445 and Gae Plunkett on 0477 316 503.

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.

## Propagating new varieties

### 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 sells 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.

### 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 autumn planting	Order deadline for spring planting
Grower finalises order. Productivity services group places order with SRA.	<b>1 July 2014</b>	<b>15 November 2014</b>
Productivity services group receives established plantlets from nursery and distributes to growers.	Delivery on agreed date between grower, productivity services group and nursery. <b>Available in March 2015.</b>	Delivery on agreed date between grower, productivity services group and nursery. <b>Available in August 2015.</b>

### 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](http://sugarresearch.com.au)).

<b>Year 1</b>	Number of seedlings 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	1 200
<b>Year 2</b>	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 Central region in 2014

Presented below are the latest results of trials conducted in the Central 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).

### Q252<sup>fb</sup>

Parentage: Q208<sup>fb</sup> x Q96 | High tonnes, high CCS

Trial harvest date	Crop class	Yield (tonnes cane/ha)	CCS	Number of trials
2011	Plant	87 (79)	16.0 (16.0)	2
2012	1 <sup>st</sup> Ratoon	87 (83)	17.9 (17.3)	3
2013	2 <sup>nd</sup> Ratoon	80 (74)	18.7 (18.3)	3
2013	Plant	89 (87)	18.2 (17.9)	3
<b>Average of all harvests</b>		<b>86 (81)</b>	<b>17.9 (17.5)</b>	<b>11</b>

The standard varieties used in these trials were Q238<sup>fb</sup> Q232<sup>fb</sup> KQ228<sup>fb</sup> Q226<sup>fb</sup> Q208<sup>fb</sup> Q200<sup>fb</sup> Q183<sup>fb</sup>

This variety is resistant to leaf scald, mosaic and red rot. It has intermediate resistance to Fiji leaf gall, pachymetra root rot and smut.

### Q247<sup>fb</sup>

Parentage: Q138 x Q155 | Good disease ratings, high sugar, moderate tonnes

Trial harvest date	Crop class	Yield (tonnes cane/ha)	CCS	Number of trials
2011	Plant	73 (79)	15.8 (16.0)	2
2012	1 <sup>st</sup> Ratoon	83 (83)	18.5 (17.3)	3
2013	2 <sup>nd</sup> Ratoon	77 (74)	19.3 (18.3)	3
2013	Plant	86 (87)	18.4 (17.9)	3
<b>Average of all harvests</b>		<b>80 (81)</b>	<b>18.2 (17.5)</b>	<b>11</b>

The standard varieties used in these trials were Q226<sup>fb</sup> Q221<sup>fb</sup> Q209<sup>fb</sup> Q208<sup>fb</sup> Q207<sup>fb</sup> Q205<sup>fb</sup> Q196<sup>fb</sup> Q190<sup>fb</sup> Q185<sup>fb</sup> Q170<sup>fb</sup> Q157 Q138

This variety is resistant to Fiji leaf gall, leaf scald, mosaic, pachymetra root rot and red rot. It has intermediate resistance to smut.



Q252<sup>fb</sup>



Q240<sup>fb</sup>



Q247<sup>fb</sup>



Q253<sup>fb</sup>



## New varieties available in the Burdekin region in 2014

Presented below are the latest results of trials conducted in the Burdekin 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).

### Q240<sup>db</sup>

Parentage: QN81-289 x SP78-3137 | High tonnes, high CCS

Trial harvest date	Crop class	Yield (tonnes cane/ha)	CCS	Number of trials
2009	Plant	125 (123)	16.6 (16.1)	3
2010	1 <sup>st</sup> Ratoon	135 (128)	14.9 (15.1)	3
2011	2 <sup>nd</sup> Ratoon	98 (87)	16.6 (16.3)	3
2011	Plant	135 (129)	15.9 (16.5)	4
2012	1 <sup>st</sup> Ratoon	124 (120)	16.3 (16.4)	4
2013	2 <sup>nd</sup> Ratoon	96 (88)	16.6 (16.6)	3
2012	Plant	126 (124)	16.5 (16.3)	2
2013	1 <sup>st</sup> Ratoon	89 (82)	16.6 (16.6)	2
2013	Plant	144 (143)	16.6 (16.8)	4
<b>Average of all harvests</b>		<b>121 (117)</b>	<b>16.3 (16.4)</b>	<b>28</b>

The standard varieties used in these trials were KQ228<sup>db</sup> Q208<sup>db</sup> Q183<sup>db</sup> Q171<sup>db</sup>

This variety is resistant to leaf scald, mosaic, orange rust, ratoon stunting disease, red rot and smut. It has intermediate resistance to chlorotic streak and pachymetra root rot.

### Q252<sup>db</sup>

Parentage: Q208<sup>db</sup> x Q96 | High tonnes, high CCS

Trial harvest date	Crop class	Yield (tonnes cane/ha)	CCS	Number of trials
2006	Plant	171 (159)	14.0 (13.8)	2
2007	1 <sup>st</sup> Ratoon	180 (170)	14.8 (15.2)	1
2008	2 <sup>nd</sup> Ratoon	139 (134)	16.6 (16.8)	1
2009	Plant	128 (126)	17.0 (16.6)	4
2010	1 <sup>st</sup> Ratoon	121 (129)	15.1 (15.3)	4
2011	2 <sup>nd</sup> Ratoon	81 (85)	16.9 (16.7)	4
2013	Plant	128 (143)	17.1 (16.8)	4
<b>Average of all harvests</b>		<b>125 (128)</b>	<b>16.2 (16.1)</b>	<b>20</b>

The standard varieties used in these trials were KQ228<sup>db</sup> Q208<sup>db</sup> Q183<sup>db</sup> Q171<sup>db</sup> Q127 Q117 Tellus<sup>db</sup>

This variety is resistant to leaf scald, mosaic and red rot. It has intermediate resistance to Fiji leaf gall, pachymetra root rot and smut.

### Q253<sup>db</sup>

Parentage: QN80-3425 x Q209<sup>db</sup> | High tonnes, moderate sugar

Trial harvest date	Crop class	Yield (tonnes cane/ha)	CCS	Number of trials
2007	Plant	180 (156)	15.0 (16.0)	4
2008	1 <sup>st</sup> Ratoon	128 (111)	16.0 (17.1)	4
2009	2 <sup>nd</sup> Ratoon	115 (105)	16.8 (17.2)	4
2009	Plant	131 (126)	15.6 (16.6)	4
2010	1 <sup>st</sup> Ratoon	127 (129)	14.5 (15.3)	4
2011	2 <sup>nd</sup> Ratoon	90 (85)	16.0 (16.7)	4
2013	Plant	147 (139)	15.6 (16.4)	2
<b>Average of all harvests</b>		<b>130 (121)</b>	<b>15.7 (16.5)</b>	<b>26</b>

The standard varieties used in these trials were KQ228<sup>db</sup> Q208<sup>db</sup> Q183<sup>db</sup> Q171<sup>db</sup> Q127 Tellus<sup>db</sup>

This variety is susceptible to Fiji leaf gall which means it cannot be grown in the Southern regions. It has resistance to leaf scald, mosaic, pachymetra root rot, red rot and smut.








## Disease resistance

Disease has the potential to lower the performance of varieties on your farm. This table will help you select varieties that will perform well given the diseases that may be present on your farm.

Rotation of varieties 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 [www.sugarresearch.com.au](http://www.sugarresearch.com.au)

	Susceptible		Intermediate/Susceptible		Intermediate
	Resistant		Intermediate/Resistant		

Variety	Brown rust	Chlorotic streak	Fiji leaf gall	Leaf scald	Mosaic	Orange rust	Pachymetra root rot	Red rot	Ratoon stunting disease	Smut
Q253 <sup>♢</sup>			Susceptible	Resistant	Resistant		Resistant	Resistant		Resistant
Q252 <sup>♢</sup>			Intermediate	Resistant	Resistant		Intermediate	Resistant		Intermediate
Q249 <sup>♢</sup>			Resistant	Resistant	Intermediate/Resistant		Intermediate	Intermediate/Resistant		Resistant
Q247 <sup>♢</sup>			Resistant	Resistant	Resistant		Resistant	Resistant		Intermediate
Q246 <sup>♢</sup>			Intermediate/Susceptible	Resistant	Resistant		Intermediate/Resistant	Susceptible		Resistant
Q242 <sup>♢</sup>		Intermediate	Resistant	Resistant	Resistant	Resistant	Resistant	Intermediate/Resistant	Susceptible	Intermediate
Q240 <sup>♢</sup>		Intermediate/Resistant	Intermediate/Susceptible	Resistant	Resistant	Resistant	Intermediate	Resistant	Resistant	Resistant
Q238 <sup>♢</sup>	Resistant	Susceptible	Intermediate/Resistant	Resistant	Resistant	Resistant	Resistant	Intermediate/Resistant	Intermediate	Resistant
Q232 <sup>♢</sup>		Resistant	Intermediate	Resistant	Resistant	Resistant	Intermediate	Intermediate/Resistant	Intermediate	Resistant
KQ228 <sup>♢</sup>	Resistant		Intermediate	Resistant	Resistant		Intermediate	Resistant	Susceptible	Resistant
Q226 <sup>♢</sup>	Intermediate/Susceptible		Resistant	Resistant	Resistant	Resistant	Intermediate/Resistant	Resistant	Intermediate	Resistant
Q212 <sup>♢</sup>	Intermediate/Susceptible	Resistant	Intermediate/Resistant	Resistant	Resistant	Resistant	Resistant	Resistant	Intermediate	Resistant
Q209 <sup>♢</sup>	Resistant		Intermediate/Resistant	Resistant	Resistant	Resistant	Resistant	Intermediate/Susceptible		Susceptible
Q208 <sup>♢</sup>	Resistant	Resistant	Intermediate/Susceptible	Resistant	Resistant	Resistant	Intermediate	Resistant	Resistant	Intermediate/Resistant
Q200 <sup>♢</sup>	Resistant	Resistant	Intermediate	Resistant	Resistant	Resistant	Intermediate	Resistant	Resistant	Resistant
Q197 <sup>♢</sup>	Resistant		Resistant	Resistant	Resistant	Resistant	Resistant	Susceptible		Susceptible
Q196 <sup>♢</sup>	Resistant		Resistant	Resistant	Resistant	Resistant	Resistant	Resistant		Susceptible
Q190 <sup>♢</sup>	Intermediate/Resistant		Resistant	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant	Intermediate
Q183 <sup>♢</sup>	Resistant		Resistant	Intermediate	Resistant	Resistant	Resistant	Susceptible	Intermediate	Intermediate/Resistant
Q177 <sup>♢</sup>	Resistant		Intermediate/Resistant	Resistant	Intermediate/Resistant	Intermediate	Susceptible	Intermediate/Resistant	Intermediate	Resistant
Q171 <sup>♢</sup>	Resistant		Resistant	Resistant	Susceptible	Resistant	Susceptible	Intermediate	Intermediate	Resistant
Q170 <sup>♢</sup>	Resistant		Resistant	Resistant	Intermediate	Intermediate/Resistant	Intermediate/Resistant	Resistant	Susceptible	Susceptible
Q157	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant	Susceptible	Intermediate/Susceptible	Intermediate/Susceptible	Susceptible
Q138	Resistant	Intermediate/Resistant	Resistant	Resistant	Intermediate/Susceptible	Resistant	Resistant	Intermediate/Susceptible	Susceptible	Susceptible
Q135	Resistant	Susceptible	Resistant	Resistant	Susceptible	Resistant	Intermediate	Susceptible	Resistant	Intermediate
Q133	Resistant	Intermediate/Susceptible	Susceptible	Intermediate/Resistant			Susceptible	Intermediate		Resistant
RB76-5418	Intermediate/Resistant	Susceptible	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant	Intermediate
Tellus <sup>♢</sup>	Resistant		Resistant	Resistant			Susceptible			Susceptible



## 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. Soil-specific nutrient management guideline booklets are available for the Proserpine and Plane Creek districts on the SRA website [sugarresearch.com.au](http://sugarresearch.com.au)

### Central region

Irrigation available	Q240 <sup>Ⓞ</sup> Q183 <sup>Ⓞ</sup> Q252 <sup>Ⓞ</sup> Q208 <sup>Ⓞ</sup> Q232 <sup>Ⓞ</sup> Q242 <sup>Ⓞ</sup> Q238 <sup>Ⓞ</sup> KQ228 <sup>Ⓞ</sup>
Heavy soils (black and grey clays)	Q208 <sup>Ⓞ</sup> Q232 <sup>Ⓞ</sup> Q240 <sup>Ⓞ</sup> KQ228 <sup>Ⓞ</sup> Q200 <sup>Ⓞ</sup> Q252 <sup>Ⓞ</sup> Q242 <sup>Ⓞ</sup> Q190 <sup>Ⓞ</sup>
Good soils (e.g. alluvials)	Q240 <sup>Ⓞ</sup> Q208 <sup>Ⓞ</sup> Q238 <sup>Ⓞ</sup> Q249 <sup>Ⓞ</sup> Q242 <sup>Ⓞ</sup> KQ228 <sup>Ⓞ</sup> Q183 <sup>Ⓞ</sup> Q209 <sup>Ⓞ</sup>
Average soils (e.g. Podzolics)	Q208 <sup>Ⓞ</sup> Q238 <sup>Ⓞ</sup> Q232 <sup>Ⓞ</sup> Q249 <sup>Ⓞ</sup> Q183 <sup>Ⓞ</sup> Q242 <sup>Ⓞ</sup> Q240 <sup>Ⓞ</sup> KQ228 <sup>Ⓞ</sup>
Average to poor soils (e.g. Solodics)	Q208 <sup>Ⓞ</sup> Q242 <sup>Ⓞ</sup> Q232 <sup>Ⓞ</sup> Q183 <sup>Ⓞ</sup> Q240 <sup>Ⓞ</sup> Q238 <sup>Ⓞ</sup>
Poor soils (e.g. Soloths, sand)	Q208 <sup>Ⓞ</sup> Q232 <sup>Ⓞ</sup> Q138 Q226 <sup>Ⓞ</sup> Q252 <sup>Ⓞ</sup> Q242 <sup>Ⓞ</sup> Q247 <sup>Ⓞ</sup> Q183 <sup>Ⓞ</sup>

### Burdekin region

Cracking clay	Q183 <sup>Ⓞ</sup> KQ228 <sup>Ⓞ</sup> Q208 <sup>Ⓞ</sup>
Non-sodic duplex	KQ228 <sup>Ⓞ</sup> Q183 <sup>Ⓞ</sup> Q208 <sup>Ⓞ</sup>
Silty loam	KQ228 <sup>Ⓞ</sup> Q208 <sup>Ⓞ</sup> Q183 <sup>Ⓞ</sup>
Sodic duplex	Q183 <sup>Ⓞ</sup> Q208 <sup>Ⓞ</sup>
Sodic/Sand/Saline	Q208 <sup>Ⓞ</sup> Q253 <sup>Ⓞ</sup>





# 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.

## Central region

Variety	Early sugar	Mid sugar	Late sugar
Q252 <sup>fb</sup>	Average	Good	Good
Q249 <sup>fb</sup>	Average	Average	Average
Q247 <sup>fb</sup>	Average	Average	Average
Q242 <sup>fb</sup>	Good	Good	Good
Q240 <sup>fb</sup>	Average	Good	Good
Q238 <sup>fb</sup>	Good	Good	Good
Q232 <sup>fb</sup>	Average	Average	Average
KQ228 <sup>fb</sup>	Good	Good	Poor
Q226 <sup>fb</sup>	Average	Average	Average
Q212 <sup>fb</sup>	Poor	Poor	Average
Q209 <sup>fb</sup>	Average	Average	Average
Q208 <sup>fb</sup>	Good	Good	Good
Q200 <sup>fb</sup>	Average	Good	Good
Q190 <sup>fb</sup>	Poor	Poor	Poor
Q183 <sup>fb</sup>	Average	Good	Good
Q177 <sup>fb</sup>	Average	Poor	Poor
Q171 <sup>fb</sup>	Average	Poor	Poor
Q138	Poor	Poor	Poor
Q135	Poor	Average	Good
Q96	Average	Average	Average

## Burdekin region

Variety	Early sugar	Mid sugar	Late sugar
Q253 <sup>fb</sup>	Unknown	Unknown	Unknown
Q252 <sup>fb</sup>	Unknown	Unknown	Unknown
Q247 <sup>fb</sup>	Average	Average	Average
Q240 <sup>fb</sup>	Average	Average	Average
Q238 <sup>fb</sup>	Poor	Poor	Poor
Q232 <sup>fb</sup>	Poor	Poor	Poor
KQ228 <sup>fb</sup>	Good	Average	Poor
Q208 <sup>fb</sup>	Average	Good	Good
Q200 <sup>fb</sup>	Poor	Average	Good
Q183 <sup>fb</sup>	Average	Average	Average
Q133	Poor	Poor	Average







## Variety management

This chart is useful for matching a variety to a particular field situation. For example, in the Central region if a field has a drainage problem, then select a variety with some tolerance to waterlogging, such as Q208<sup>®</sup>.

### Central region

Variety	Canegrub tolerance	Fast and reliable germination	Drought tolerance	Tolerance to waterlogging	Frost tolerance	Ratooning after early harvest	Ratooning after late harvest
Q252 <sup>®</sup>	Unknown	Average	Average	Unknown	Unknown	Unknown	Unknown
Q249 <sup>®</sup>	Unknown	Average	Average	Average	Unknown	Average	Average
Q247 <sup>®</sup>	Unknown	Average	Poor	Unknown	Unknown	Unknown	Unknown
Q242 <sup>®</sup>	Unknown	Good	Good	Good	Unknown	Good	Good
Q240 <sup>®</sup>	Unknown	Good	Average	Average	Good	Good	Good
Q238 <sup>®</sup>	Unknown	Good	Average	Poor	Average	Good	Average
Q232 <sup>®</sup>	Poor	Average	Average	Good	Average	Good	Poor
KQ228 <sup>®</sup>	Average	Good	Average	Poor	Good	Good	Average
Q226 <sup>®</sup>	Average	Good	Average	Poor	Average	Average	Average
Q212 <sup>®</sup>	Average	Good	Average	Average	Average	Good	Average
Q209 <sup>®</sup>	Average	Average	Average	Average	Average	Average	Average
Q208 <sup>®</sup>	Average	Average	Average	Good	Good	Average	Good
Q200 <sup>®</sup>	Poor	Average	Poor	Average	Poor	Average	Average
Q190 <sup>®</sup>	Poor	Good	Poor	Good	Average	Good	Poor
Q183 <sup>®</sup>	Average	Good	Poor	Poor	Average	Average	Good
Q177 <sup>®</sup>	Average	Average	Poor	Poor	Unknown	Average	Average
Q171 <sup>®</sup>	Poor	Average	Average	Average	Unknown	Good	Average
Q138	Average	Average	Good	Average	Poor	Average	Average
Q135	Poor	Average	Poor	Poor	Good	Average	Average
Q96	Poor	Average	Poor	Poor	Average	Poor	Poor

### Burdekin region

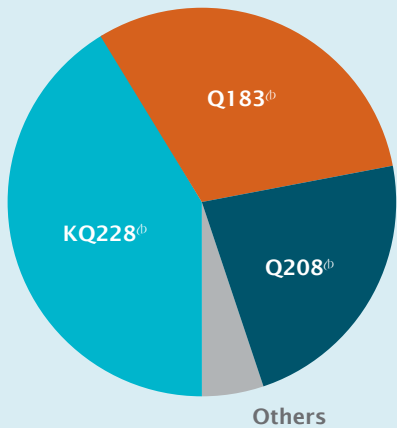
Variety	Canegrub tolerance	Fast and reliable germination	Fast and reliable ratooning in harsh conditions	Tolerance to waterlogging	Tolerance to wind damage
Q253 <sup>®</sup>	Unknown	Good	Unknown	Unknown	Unknown
Q252 <sup>®</sup>	Unknown	Average	Unknown	Unknown	Unknown
Q247 <sup>®</sup>	Unknown	Average	Unknown	Unknown	Unknown
Q240 <sup>®</sup>	Unknown	Good	Unknown	Unknown	Unknown
Q238 <sup>®</sup>	Unknown	Average	Unknown	Unknown	Unknown
Q232 <sup>®</sup>	Unknown	Average	Average	Unknown	Average
Q208 <sup>®</sup>	Average	Average	Average	Average	Good
Q200 <sup>®</sup>	Poor	Average	Poor	Average	Poor
Q183 <sup>®</sup>	Average	Good	Good	Good	Poor
Q133	Average	Good	Good	Average	Average
KQ228 <sup>®</sup>	Average	Good	Good	Average	Average



## Variety performance in each mill area

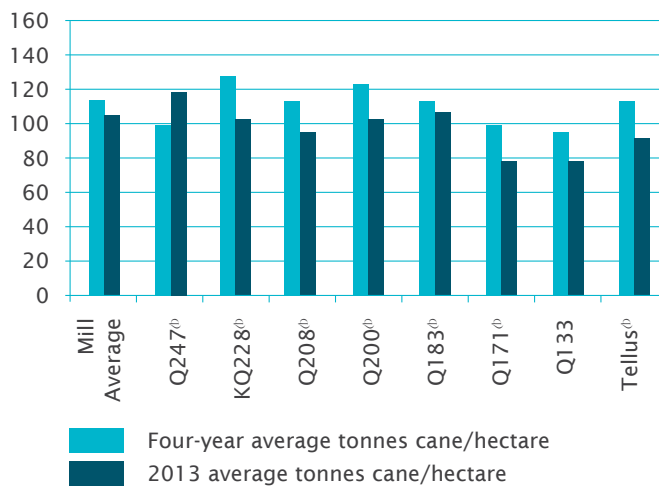
Information collected from each mill area is presented. If using QCANESelect™ choose the Regional Reporting tab which provides variety performance information from each mill area since 1980. Use this information to assess the yield performance of varieties over a number of years. The new variety data should be viewed with care as the yields are from young ratoons only, which will perform better than older ratoons.

Burdekin % hectares harvested 2013

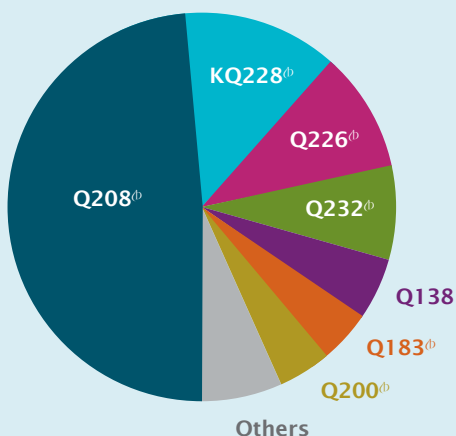


KQ228 <sup>Ⓞ</sup>	41.0%	Q171 <sup>Ⓞ</sup>	0.7%
Q183 <sup>Ⓞ</sup>	30.0%	TELLUS <sup>Ⓞ</sup>	0.7%
Q208 <sup>Ⓞ</sup>	24.4%	Q247 <sup>Ⓞ</sup>	0.4%
Q200 <sup>Ⓞ</sup>	1.5%	Q177 <sup>Ⓞ</sup>	0.3%
Q133	0.7%	Q232 <sup>Ⓞ</sup>	0.1%

The Burdekin region harvested 7.293 million tonnes of cane from 71,402 hectares. The mill average CCS was 14.62 and 102 tonnes cane/hectare. The three major varieties grown in the Burdekin are KQ228<sup>Ⓞ</sup>, Q183<sup>Ⓞ</sup> and Q208<sup>Ⓞ</sup>, with the area harvested of Q208<sup>Ⓞ</sup> dropping in the last two years. Newer varieties released recently have not been planted in large areas yet so information on their performance is not included in the mill data. The mill dataset for Q247<sup>Ⓞ</sup> are mainly from plant crop yields which overestimated its performance compared to other varieties which include older ratoons.

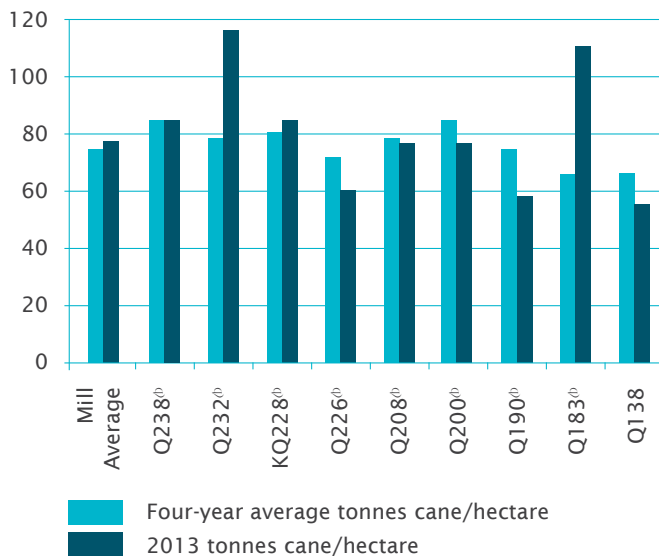


Proserpine % hectares harvested 2013



Q208 <sup>Ⓞ</sup>	46.5%	Q183 <sup>Ⓞ</sup>	5.2%
KQ228 <sup>Ⓞ</sup>	12.7%	Q200 <sup>Ⓞ</sup>	3.2%
Q226 <sup>Ⓞ</sup>	9.9%	Q190 <sup>Ⓞ</sup>	2.7%
Q232 <sup>Ⓞ</sup>	7.1%	Q238 <sup>Ⓞ</sup>	2.3%
Q138	5.4%	Q196 <sup>Ⓞ</sup>	1.3%

The Proserpine region harvested 1.632 million tonnes of cane from 21,038 hectares. The mill average CCS was 14.67 and 78 tonnes cane/hectare. Q232<sup>Ⓞ</sup> and Q183<sup>Ⓞ</sup> performed well in Proserpine in 2013 with average yields well above the mill average, and increasing areas of these varieties were harvested from 2012 to 2013. Q208<sup>Ⓞ</sup> is grown in almost half of the harvested hectares. This variety has intermediate resistance to pachymetra root rot, and growers are beginning to replace Q208<sup>Ⓞ</sup> with the pachymetra root rot resistant varieties Q247<sup>Ⓞ</sup>, Q242<sup>Ⓞ</sup>, Q238<sup>Ⓞ</sup>, Q212<sup>Ⓞ</sup> and Q183<sup>Ⓞ</sup>.

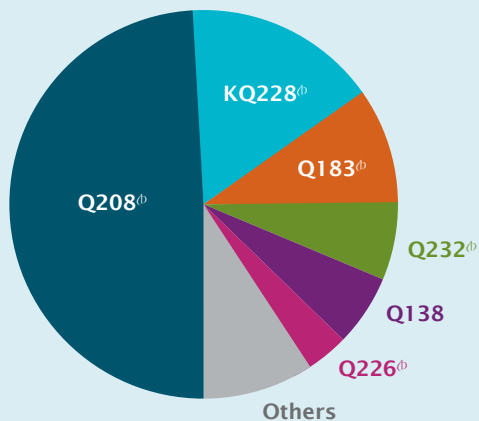




## Variety performance in each mill area (continued)

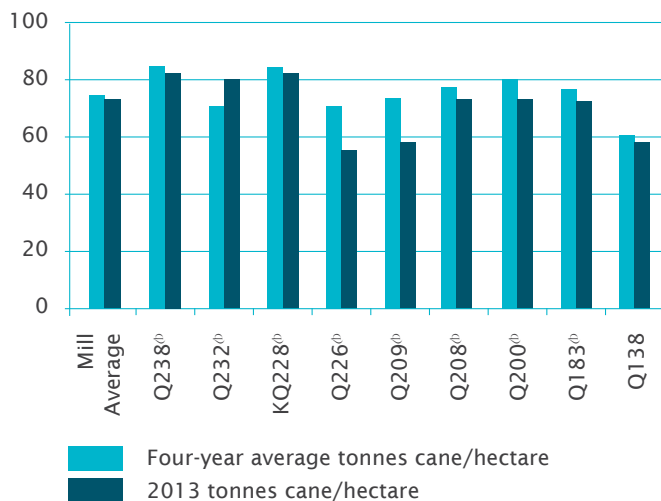


Mackay % hectares harvested 2013

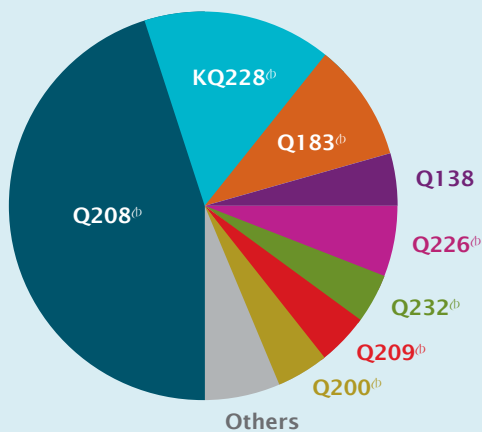


Q208 <sup>Ⓟ</sup>	48.5%	Q238 <sup>Ⓟ</sup>	1.0%
KQ228 <sup>Ⓟ</sup>	16.4%	Q190 <sup>Ⓟ</sup>	0.8%
Q183 <sup>Ⓟ</sup>	9.7%	Q170 <sup>Ⓟ</sup>	0.6%
Q232 <sup>Ⓟ</sup>	6.4%	Q196 <sup>Ⓟ</sup>	0.6%
Q138	6.0%	Q197 <sup>Ⓟ</sup>	0.4%
Q226 <sup>Ⓟ</sup>	5.3%	RB76-5418	0.3%
Q209 <sup>Ⓟ</sup>	1.7%	Q135	0.3%
Q200 <sup>Ⓟ</sup>	1.4%	Q157	0.2%

In the Mackay sugar mills region 69,897 hectares were harvested to produce 5.017 million tonnes of cane. The mill average PRS (percent recoverable sugar) was 14.72 at 72 tonnes cane/hectare. The newest varieties (Q238<sup>Ⓟ</sup>, Q232<sup>Ⓟ</sup> and KQ228<sup>Ⓟ</sup>) all had yields better than the mill average. The area of Q232<sup>Ⓟ</sup> harvested is increasing while the area of Q208<sup>Ⓟ</sup> harvested in 2013 has remained the same as 2012.

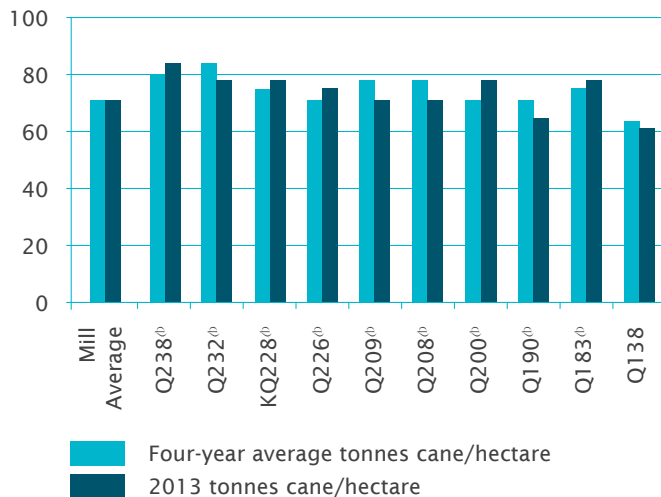


Plane Creek % hectares harvested 2013



Q208 <sup>Ⓟ</sup>	41.9%	Q238 <sup>Ⓟ</sup>	2.0%
KQ228 <sup>Ⓟ</sup>	15.8%	Q190 <sup>Ⓟ</sup>	1.7%
Q183 <sup>Ⓟ</sup>	10.8%	Q170 <sup>Ⓟ</sup>	0.7%
Q138	5.2%	RB76-5418	0.7%
Q226 <sup>Ⓟ</sup>	5.0%	Q171 <sup>Ⓟ</sup>	0.7%
Q232 <sup>Ⓟ</sup>	4.8%	Q135	0.5%
Q209 <sup>Ⓟ</sup>	4.1%	Q177 <sup>Ⓟ</sup>	0.5%
Q200 <sup>Ⓟ</sup>	3.7%		

The Plane Creek region harvested 1.215 million tonnes of cane from 16,558 hectares. The mill average CCS was 15.18 and 73 tonnes cane/hectare. The drier harvest season allowed Q238<sup>Ⓟ</sup> to perform to its best in 2013 and it topped the averages at 84 TCH. This variety is susceptible to chlorotic streak and this has prevented it being grown in areas prone to waterlogging which has limited the area under production. Q232<sup>Ⓟ</sup>, KQ228<sup>Ⓟ</sup>, Q200<sup>Ⓟ</sup> and Q183<sup>Ⓟ</sup> all performed above the mill average last year.



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