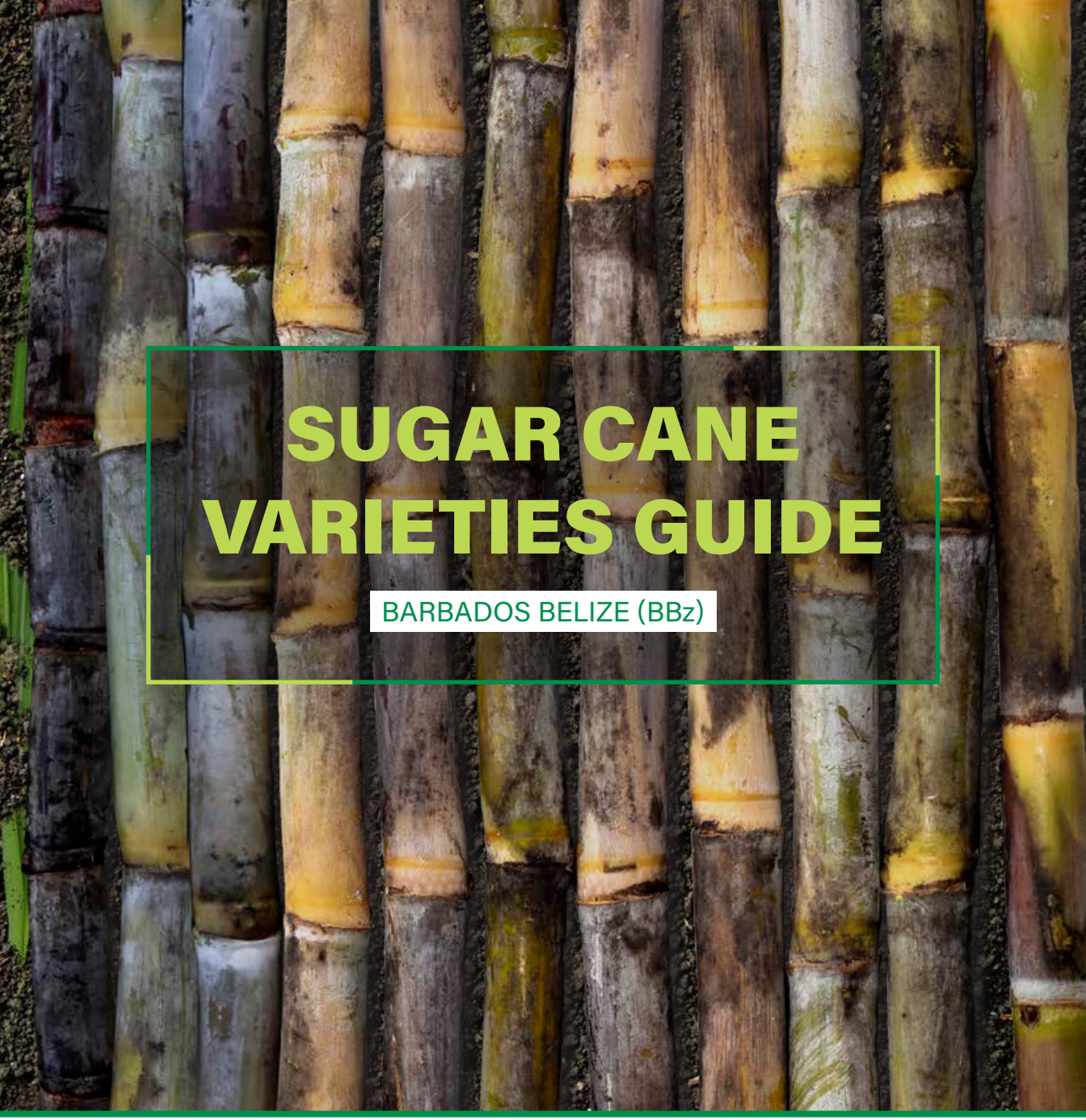

SUGAR CANE VARIETIES GUIDE

BARBADOS BELIZE (BBz)

GREEN CLIMATE FUND

Caribbean Community Climate Change Centre

ASR GROUP | BELIZE sugar

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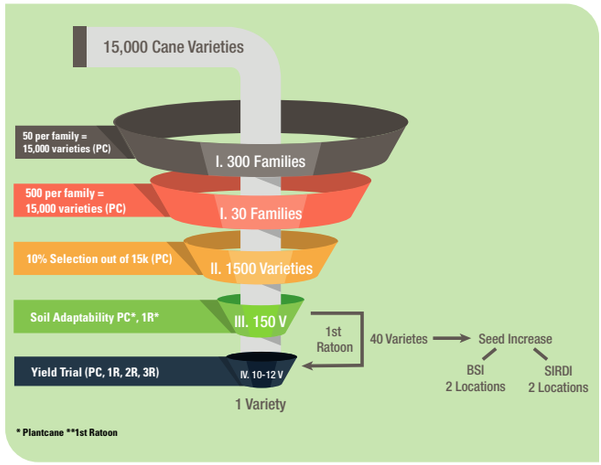
Improving Sugar Cane Varieties

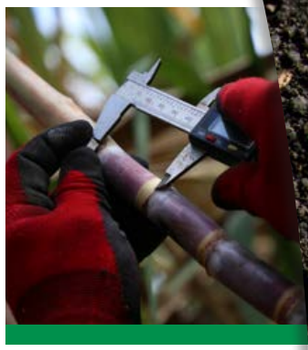
Improved sugarcane varieties play a key role in securing a sustainable sugar industry. With climate change making conditions more unpredictable and extreme, varieties suited to these conditions become imperative moving forward. Varieties provide natural adaption to climate change and present conditions. As founding and paying member of the West Indies Central Sugar Cane Breeding Station (WICSCBS) since 1970s Belize Sugar Industries Ltd (BSI) receives 30,000 cane varieties annually.



These varieties are evaluated for resiliency performance against a variety of selection criteria including climate resilience. The variety development program entails a five step filtering process, Family Selection to Stage IV, spanning a minimum of 10 years to identify new varieties. The BSI research department receives true sugarcane seed from the breeder WICSCBS and initiates this process with Family selection, a stage put in place to identify best suited parental lines for production of seed under this site specific and changing climatic regime. Based on performance the Research & Development department requests for fuzz from the best performing parental lines and establishes between 10,000 – 20,000 individuals under local conditions and begins its selection under climate and local soil conditions. The researchers exert selection pressures on individuals at each stage of the program, filtering the best varieties. The program was designed to validate performance and showcase advanced varieties exiting Stage IV on different soil, micro climates and grower practices.

Currently, BSI tests cane varieties in three locations: (1) Tower Hill area, which is approximately 3 miles away from the mill, (2) Hill View area that is approximately 6 miles from the mill and (3) Guinea Grass area which is approximately 6 miles from the mill. The testing cycle's duration lasts for about 15 years to obtain results.

Project Summary



This varieties guide booklet was produced by the Belize Sugar Industries Ltd (BSI) research program, in collaboration with the Caribbean Community Climate Change Center (CCCCC) with funding from the Green Climate Fund under the Project Preparation Facility for **"Building Climate Adaptive Capacity of Sugar Cane Farmers in Northern Belize".**

The result of this CCCCC - BSI research project identified three (3) superior cane varieties through validation sites in each of the most prominent agro-ecological zones in the northern sugar belt of Belize. This booklet identifies and describes 11 sugar cane varieties that were used for comparisons of varietal performance between experimental varieties & benchmark varieties which determined variety adaptability in each zone. With variety adaptability determined, scaling of varieties is now possible. Industry stakeholders identified seed nurseries to increment promising varieties; the seed produced from the nursery will be distributed amongst the farming community. Strategic projects of this manner increase the climate resiliency and adaptability of the sugar industry by providing climate smart varieties to farmers.

BBz07015

VARIETY INFORMATION SHEET

BBz07015

Description

BBz07015 was tested in two trials, one in the Tower Hill area and one in the Santa Cruz area. The results are from the plant cane, 1st, 2nd and 3rd ratoon crops. The variety is a mid-maturing variety appropriate for Sandy Soils and Clay Soils.

WI93901 POLYCC

General Performance
High Quality
High Productivity
Adaptable to Different Conditions

Limiting Features

Site	Variety	Brix	Pol	Purity	TC/TS	Kg/Stalk	Stalks/Ha	TCH	TSH	Fiber
Tower Hill	BBz07015	20.05	17.17	85.61	8.65	0.96	76319	76.65	8.75	14.44
	B79474 (T1)	19.09	16.13	84.37	9.15	0.73	70088	55.96	5.85	14.11
	BBz07015 to T1	102%	104%	102%	95%	113%	116%	124%	130%	101%
Santa Cruz	BBz07015	20.57	17.57	85.33	8.56	1.04	73490	81.37	9.41	14.63
	CP721312 (T2)	20.98	18.15	86.46	8.19	0.76	82290	62.20	7.53	14.55
	BBz07015 to T2	98%	97%	99%	105%	136%	89%	131%	125%	101%

Disease and Pest Information	
Smut	Resistant
Rust	Resistant
RSD	Resistant
Froghoppers	Tolerant
Stemborers	Mildly Susceptible

Agronomic Characteristic	
Canopy	Good
Flowering	None Observed
Lodging	Erect
Ratooning	Very Good
Trashing	Average

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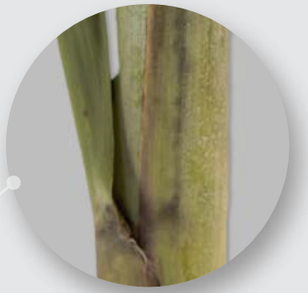
BBz07015
IDENTIFICATION GUIDE

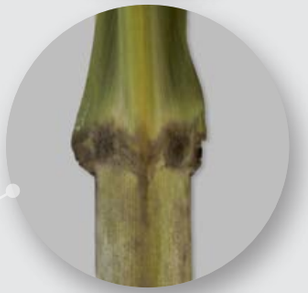
Distinguishing characteristic

Wax at bottom of stalk turns black with aging



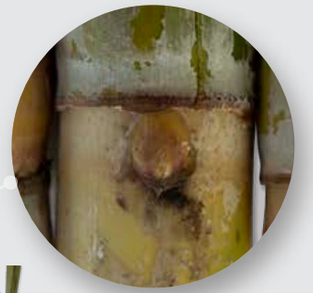
Leaf Sheath

The leaf sheath is green with occasional purple patches. There is thin necrotic layer and younger leaves have pubescence. There are small auricles found on the leaf sheath with hair.



Dewlap

The dewlap is dark green to black in color displaying moderate wax coverage.



Bud Eye

The buds are large and relatively flat. Buds are yellow with small wings; buds exposed to direct sunlight turn purple. The growth ring uniform around the internode irrespective of the eye and light yellow in color that can change with sun exposure.

Stalks Placed Together & Three Piece Sample

Stalks average 1.0 cm in diameter and demonstrates a slight zig zag pattern. Unexposed stalks are yellow in color while sun exposure turns the stalks light green. Sufficient sun exposure will turn the stalk purple. The stalks have moderate stalk wax coverage that does not rub off easily. The older stalk wax can turn black, a characteristic shared with B79474. The internodes are generally concave on both sides of the internode and present no growth cracks.

Belize Sugar Industries Limited
Agricultural Research
Tower Hill, Orange Walk

Release Statement of Sugarcane Variety BBz07015

The Belize Sugar Industries Limited (BSI) Agricultural Research department has developed and announces the release of new variety BBz07015.

BBz07015 was produced from a cross made in December 2005 at the West Indies Central Sugar Cane Breeding Station. The female part is WI93901 and the male parent is a polycross. BBz07015 is recommended for sandy and clay soils. Highlight features include high cane quality and high adaptability to various agroecological zones.

BBz07015 was evaluated via replicated trials located in the Tower Hill and Santa Cruz farms. The experimental design utilized was a randomized complete block design with 4 replications. The trials were planted in late 2013 at the two locations mentioned previously and evaluated from 2015 – 2019. The trials were evaluated over the plant cane, first ratoon, second ratoon & third ratoon at Tower Hill & additionally fourth ratoon at the Santa Cruz location. The reference variety in the Tower Hill location was B79474 and the reference variety in the Santa Cruz trial was CP721312.

The mean productivity (TCH) of BBz07015 was 31% & 24% higher than CP721312 & B79474 respectively. The average sugar per hectare (TSH) was 25% & 30% higher than CP721312 & B79474 respectively. The mean amount of cane to produce a ton of sugar (TC/TS) was 5% higher than CP721312 and 5% lower than B79474. The sucrose content was 3% lower than CP721312 and 4% higher than B79474. The average stalk weight was 36% and 13% higher than CP721312 & B79474 respectively. The mean stalk population was 16% higher than B79474 and 11% lower than CP721312. CP721312 is an early maturing variety known to have a very high stalk count.

BBz07015 has shown good resistance to rust, smut. Immunoassays also showed BBz07015 resistant to RSD. It is tolerant of mild froghopper damage. It is also mildly susceptible to stem borers.

The data contained in these documents have been collected under controlled conditions. Every effort has been made to ensure the accurate data collection and reporting however the author makes no representation, warranty or guarantee relating to the information contained in this work. The research contained in this document considerably reduces end user risk but there still exists a level of risk by the end user. The author or associates cannot be held liable for any loss or damages incurred whether direct or indirect caused by the reliance on information in these documents.

BBz07015 was tested on clay soils at Santa Cruz location and Sandy Soils at the Tower Hill location.
The following information offers a comparison between the control varieties and the new cultivar

Stage IV Results Over Four Cycles for BBz07015: Santa Cruz Locaton (Vertsol)

	Brix	Pol	Purity	TC/TS	Kg/Stalk	Stalks/Ha	TCH	TSH	Fiber
BBz07015	**20.57**	**17.57**	**85.33**	**8.56**	**1.04**	**73489**	**81.37**	**9.41**	**14.63**
PC	22.52	20.25	89.92				88.14		14.84
R1	20.13	17.60	87.37				83.32		14.92
R2	20.81	17.88	85.92	8.14	1.04	83420	87.87	10.84	15.74
R3	19.77	16.90	85.46	8.65	1.12	76806	93.39	10.90	14.84
R4	20.79	17.22	82.80	8.63	0.96	66864	64.28	7.44	13.89
CP721312	**20.98**	**18.15**	**86.46**	**8.19**	**0.76**	**82290**	**62.20**	**7.53**	**14.55**
PC	22.35	20.21	90.42				61.99		14.57
R1	20.70	18.23	88.08				73.15		14.22
R2	20.81	18.13	87.10	7.97	0.67	101181	68.50	8.68	14.91
R3	20.63	17.97	87.02	8.07	0.94	74722	67.64	8.69	14.95
R4	20.96	17.59	83.91	8.37	0.62	83561	51.52	6.17	14.20

Table 1: Performance Results by Cycle of BBz07015 in Comparison to Benchmark Variety, CP721312, on a Vertisol Location

Stage IV Results Over Four Cycles for BBz07015: Tower Hill Locaton (Alfisol)

	Brix	Pol	Purity	TC/TS	Kg/Stalk	Stalks/Ha	TCH	TSH	Fiber
BBz07015	**19.46**	**16.73**	**85.93**	**8.72**	**0.83**	**81269**	**69.58**	**7.59**	**14.23**
PC	20.31	17.68	87.03	8.18			68.76		13.27
R1	18.62	15.95	85.62	9.14			83.61		12.76
R2	18.01	15.37	85.32	9.53	0.92	67992	61.11	6.43	14.28
R3	19.93	17.07	85.60	8.54	0.80	85695	68.01	7.98	15.82
B79474	**19.09**	**16.13**	**84.37**	**9.15**	**0.73**	**70088**	**55.96**	**5.85**	**14.11**
PC	19.11	16.31	85.33	8.98			53.50		12.79
R1	18.71	15.62	83.43	9.51			73.28		13.35
R2	17.75	14.67	82.61	10.15	0.81	63686	52.15	5.19	13.74
R3	19.79	16.82	84.95	8.70	0.71	72222	52.28	6.07	15.62

Table 2: Performance Results by Cycle of BBz07015 in Comparison to Benchmark Variety, B79474, on an Alfisol Location

BBz07144

VARIETY INFORMATION SHEET

BBz07144

Description

BBz07144 was tested in two trials, one in the Tower Hill area and one in the Santa Cruz area. The results are from the plant cane, 1st, 2nd and 3rd ratoon crops. The variety is a mid-maturing variety appropriate for Sandy Soils and Clay Soils

Cross: CR87220 x POLYCC

General Performance
Low Fiber
Adapts well to Santa Cruz
High Tillering

Limiting Features
Leaf sheaths adhere to the stalk

Site	Variety	Brix	Pol	Purity	TC/TS	Kg/Stalk	Stalks/Ha	TCH	TSH	Fiber
Tower Hill	BBz07144	18.95	16.40	86.45	8.90	0.65	75338	54.95	5.49	12.77
	B79474 (T1)	19.09	16.13	84.37	9.15	0.73	70088	55.96	5.85	14.11
	BBz07144 to T1	99%	102%	102%	97%	88%	107%	98%	94%	91%
Santa Cruz	BBz07144	20.16	17.51	86.79	8.49	1.04	78308	83.30	9.93	12.70
	CP721312 (T2)	20.98	18.15	86.46	8.19	0.76	82290	62.20	7.53	14.55
	BBz07144 to T2	96%	96%	100%	104%	137%	95%	134%	132%	87%

Disease and Pest Information	
Smut	Resistant
Rust	Resistant
RSD	Resistant
Froghoppers	Tolerant
Stemborers	Moderately Resistant

Agronomic Characteristic	
Canopy	Good
Flowering	None Observed
Lodging	Erect
Ratooning	Good
Trashing	Holds Trash

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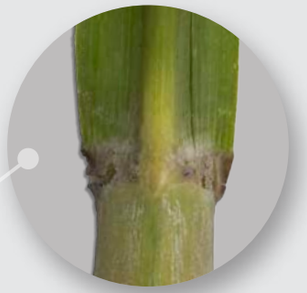
BBz07144
IDENTIFICATION GUIDE

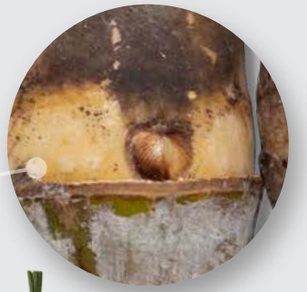
Distinguishing Characteristic
Bronze & Olive green hues

Canopy
Overall erect Canopy with many leaves pointing straight up.

Leaf Sheath
The leaf sheath is light to dark green with purple patches due to sun exposure. Leaf sheath margins develop a thin necrotic layer that does not extend to the bottom. The leaf sheath does not have pubescence. There are small auricles found on the leaf sheath.



Dewlap
The dewlap is olive green displaying heavy wax coverage.



Bud Eye
The buds are small and mostly flat, older buds bulge slightly. The unexposed buds are yellow with small wings and exposed buds turn purple. The growth ring is uniform around the internode irrespective of the eye. It is light yellow and turns green upon sun exposure.

Stalks Placed Together & Three Piece Sample
Stalks average 0.8 cm in diameter and demonstrates a zig zag pattern. Unexposed stalks are dark yellow and turn bronze-purple upon exposure to the sun. The stalks have moderate stalk wax coverage that rubs off easily. The internode shape is slightly concave widening at the base and present no growth cracks.

Belize Sugar Industries Limited
Agricultural Research
Tower Hill, Orange Walk

Release Statement of Sugarcane Variety BBz07144

The Belize Sugar Industries Limited (BSI) Agricultural Research department has selected and announces the release of new variety BBz07144.

BBz07144 was produced from a cross made in December 2005 at the West Indies Central Sugar Cane Breeding Station. The female part is CR87220 and the male parent is a Polycross. BBz07144 is recommended for sandy and clay soils. Highlights include high cane quality and profuse tillering.

BBz07144 was evaluated via replicated trials located in the Tower Hill and Santa Cruz farms. The experimental design utitlized was a randomized complete block design. With 4 replications. The trials were planted in late 2013 at the two locations mentioned previously and evaluated from 2015 – 2019. The trials were evaluated over the plant cane, first ratoon, second ratoon & third ratoon at Tower Hill & additionally fourth ratoon at the Santa Cruz location. The reference variety in the Tower Hill location was B79474 and the reference variety in the Santa Cruz trial was CP721312.

The mean productivity (TCH) of BBz07144 was 34% higher than CP721312 & 2% lower than B79474. The average sugar per hectare (TSH) was 32% higher than CP721312 & 6% lower than B79474. The mean amount of cane to produce a ton of sugar (TC/TS) was 4% higher than CP721312 and 3% lower than B79474. The sucrose content was 4% lower than CP721312 and 2% higher than B79474. The average stalk weight was 37% higher than CP721312 & 12% lower than B79474. The mean stalk population was 7% higher than B79474 and 5% lower than CP721312. CP721312 is an early maturing variety known to have a very high stalk count.

BBz07144 has shown good resistance to rust, smut. Immunoassays also showed BBz07015 resistant to RSD. It is tolerant of mild froghopper damage. It displayed intermediate resistance to stemborers.

The data contained in these documents have been collected under controlled conditions. Every effort has been made to ensure the accurate data collection and reporting however the author makes no representation, warranty or guarantee relating to the information contained in this work. The research contained in this document considerably reduces end user risk but there still exists a level of risk by the end user. The author or associates cannot be held liable for any loss or damages incurred whether direct or indirect caused by the reliance on information in these documents.

BBz07144 was tested on clay soils at Santa Cruz location and Sandy Soils at the Tower Hill location.
The following information offers a comparison between the control varieties and the new cultivar.

Stage IV Results Over Four Cycles for BBz07144: Santa Cruz Location (Vertisol)

	Brix	Pol	Purity	TC/TS	Kg/Stalk	Stalks/Ha	TCH	TSH	Fiber
BBz07144	**20.16**	**17.51**	**86.79**	**8.49**	**1.04**	**78307**	**83.30**	**9.93**	**12.70**
PC	21.84	19.79	90.55				89.06		12.76
R1	19.95	17.63	88.38				70.92		12.63
R2	20.20	17.63	87.25	8.20	0.98	93018	91.10	11.11	13.51
R3	19.26	16.56	85.92	8.81	0.97	78472	83.38	9.43	12.80
R4	20.55	17.62	85.73	8.27	1.14	73239	82.84	10.04	12.34
CP721312	**20.98**	**18.15**	**86.46**	**8.19**	**0.76**	**82290**	**62.20**	**7.53**	**14.55**
PC	22.35	20.21	90.42				61.99		14.57
R1	20.70	18.23	88.08				73.15		14.22
R2	20.81	18.13	87.10	7.97	0.67	101181	68.50	8.68	14.91
R3	20.63	17.97	87.02	8.07	0.94	74722	67.64	8.69	14.95
R4	20.96	17.59	83.91	8.37	0.62	83561	51.52	6.17	14.20

Table 1: Performance Results by Cycle of BBz07144 in Comparison to Benchmark Variety, CP721312, on a Vertisol Location

Stage IV Results Over Four Cycles for BBz07144: Tower Hill Location (Alfisol)

	Brix	Pol	Purity	TC/TS	Kg/Stalk	Stalks/Ha	TCH	TSH	Fiber
BBz07144	**18.95**	**16.40**	**86.45**	**8.90**	**0.65**	**75338**	**54.95**	**5.49**	**12.77**
PC	20.33	17.98	88.40	7.98			55.07		12.32
R1	18.42	15.74	85.46	9.28			72.98		11.88
R2	17.26	14.53	84.22	10.11	0.81	80101	65.36	6.47	12.42
R3	18.90	16.35	86.47	8.88	0.59	73750	45.44	5.16	13.71
B79474	**19.09**	**16.13**	**84.37**	**9.15**	**0.73**	**70088**	**55.96**	**5.85**	**14.11**
PC	19.11	16.31	85.33	8.98			53.50		12.79
R1	18.71	15.62	83.43	9.51			73.28		13.35
R2	17.75	14.67	82.61	10.15	0.81	63686	52.15	5.19	13.74
R3	19.79	16.82	84.95	8.70	0.71	72222	52.28	6.07	15.62

Table 2: Performance Results by Cycle of BBz07144 in Comparison to Benchmark Variety, B79474, on an Alfisol Location

BBz07155

VARIETY INFORMATION SHEET

BBz07155

Description

BBz07155 was tested in two trials, one in the Tower Hill area and one in the Santa Cruz area. The results are from the plant cane, 1st, 2nd and 3rd ratoon crops. The variety is a mid-maturing variety appropriate for Sandy Soils and Clay Soils
Cross: CR98009 x POLYCC

General Performance
Large Barrels
Good Productivity
High Adaptability

Limiting Features
Erect Canopy

Site	Variety	Brix	Pol	Purity	TC/TS	Kg/Stalk	Stalks/Ha	TCH	TSH	Fiber
Tower Hill	BBz07155	18.82	16.05	85.16	9.17	0.88	69875	64.16	6.75	12.75
	B79474 (T1)	19.09	16.13	84.37	9.15	0.73	70088	55.96	5.85	14.11
	BBz07155 to T1	99%	100%	101%	100%	119%	100%	115%	116%	90%
Santa Cruz	BBz07155	20.02	16.95	84.63	8.85	1.05	74409	80.01	9.29	13.39
	CP721312 (T2)	20.98	18.15	86.46	8.19	0.76	82290	62.20	7.53	14.55
	BBz07155 to T2	95%	93%	98%	108%	138%	90%	129%	123%	92%

Disease and Pest Information	
Smut	Resistant
Rust	Resistant
RSD	Resistant
Froghoppers	Tolerant
Stemborers	Moderately Susceptible

Agronomic Characteristic	
Canopy	Slightly Open
Flowering	None Observed
Lodging	Erect
Ratooning	Good
Trashing	Free Trashing

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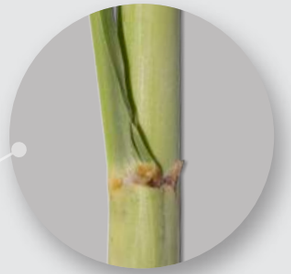
BBz07155
IDENTIFICATION GUIDE

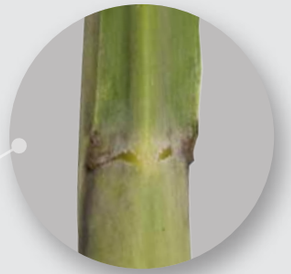
Distinguishing Characteristic

Free trashing that turn many buds purple & marked stalk color changes to sun exposure



Leaf Sheath

The leaf is a light green throughout the leaf sheath. The leaf does not present a necrotic layer along the edge. leaf sheath does not present pubescence. The leaf sheath fall off easily making it free trashing. Small auricles are present.



Dewlap

The dewlap is olive green to purple displaying heavy wax coverage.

Bud Eye

Bud eyes are small and flat with small wings. The buds are yellow and turn olive green to purple upon sun exposure. The growth ring is uniform irrespective of the eye. The growth rings are light yellow and turn dark yellow with sun exposure.

Stalks Placed Together & Three Piece Sample

Stalks average 1.1 cm in diameter and demonstrate a straight pattern. Unexposed stalks are light yellow to green in color and turn purple in color with sun exposure. The sunburn marks contrast glaringly with the removal of the leaf sheath. The stalk wax is moderate and rubs off easily. The internodes bulge at the bottom and do not present growth cracks.

Belize Sugar Industries Limited
Agricultural Research
Tower Hill, Orange Walk

Release Statement of Sugarcane Variety BBz07155

The Belize Sugar Industries Limited (BSI) Agricultural Research department has selected and announces the release of new variety BBz07155.

BBz07155 was produced from a cross made in December 2005 (05P0266) at the West Indies Central Sugar Cane Breeding Station. The female parent is CR98009 and the male parent is a polycross. BBz07155 is recommended for sandy and clay soils. Highlights include adaptability to a wide variety of agroecological zones and its ability to shed trash.

BBz07155 was evaluated via replicated trials located in the Tower Hill and Santa Cruz farms. The experimental design utitlized was a randomized complete block design. With 4 replications. The trials were planted in late 2013 at the two locations mentioned previously and evaluated from 2015 – 2019. The trials were evaluated over the plant cane, first ratoon, second ratoon & third ratoon at Tower Hill & additionally fourth ratoon at the Santa Cruz location. The reference variety in the Tower Hill location was B79474 and the reference variety in the Santa Cruz trial was CP721312.

The mean productivity (TCH) of BBz07155 was 29% & 15% higher than CP721312 & B79474 respectively. The average sugar per hectare (TSH) was 23% & 16% higher than CP721312 & B79474 respectively. The mean amount of cane to produce a ton of sugar (TC/TS) was 8% higher than CP721312 and equal to B79474. The sucrose content was 7% lower than CP721312 and equal to B79474. The average stalk weight was 38% and 19% higher than CP721312 & B79474 respectively. The mean stalk population was equal to B79474 and 10% lower than CP721312. CP721312 is an early maturing variety known to have a very high stalk count.

BBz07155 has shown good resistance to rust, smut. Immunoassays also showed BBz07155 resistant to RSD. It is tolerant of mild froghopper damage. It is also moderately susceptible to stem borers due to relatively low fiber content.

BBz07155 was tested on clay soils at Santa Cruz location and sandy soils at the Tower Hill location.
The following information offers a comparison between the control varieties and the new cultivar.

Stage IV Results Over Four Cycles for BBz07155: Santa Cruz Location (Vertisol)

	Brix	Pol	Purity	TC/TS	Kg/Stalk	Stalks/Ha	TCH	TSH	Fiber
BBz07155	**20.02**	**16.95**	**84.63**	**8.85**	**1.05**	**74409**	**80.01**	**9.29**	**13.39**
PC	21.74	19.47	89.55				75.44		12.93
R1	19.38	16.43	84.79				73.65		13.07
R2	19.97	16.97	84.99	8.61	1.10	84945	92.79	10.81	14.61
R3	19.89	16.90	84.93	8.67	1.05	67361	77.97	9.11	13.93
R4	19.78	16.28	82.31	9.13	1.04	77945	81.57	8.93	12.65
CP721312	**20.98**	**18.15**	**86.46**	**8.19**	**0.76**	**82290**	**62.20**	**7.53**	**14.55**
PC	22.35	20.21	90.42				61.99		14.57
R1	20.70	18.23	88.08				73.15		14.22
R2	20.81	18.13	87.10	7.97	0.67	101181	68.50	8.68	14.91
R3	20.63	17.97	87.02	8.07	0.94	74722	67.64	8.69	14.95
R4	20.96	17.59	83.91	8.37	0.62	83561	51.52	6.17	14.20

Table 1: Performance Results by Cycle of BBz07155 in Comparison to Benchmark Variety, CP721312, on a Vertisol Location

Stage IV Results Over Four Cycles for BBz07155: Tower Hill Location (Alfisol)

	Brix	Pol	Purity	TC/TS	Kg/Stalk	Stalks/Ha	TCH	TSH	Fiber
BBz07155	**18.82**	**16.05**	**85.16**	**9.17**	**0.88**	**69875**	**64.16**	**6.75**	**12.75**
PC	20.04	17.50	87.35	8.24			57.88		12.49
R1	17.75	14.67	82.62	10.13			81.97		11.77
R2	17.40	14.38	82.66	10.32	0.88	65749	57.61	5.57	12.90
R3	19.20	16.56	86.23	8.77	0.88	71250	62.50	7.15	13.52
B79474	**19.09**	**16.13**	**84.37**	**9.15**	**0.73**	**70088**	**55.96**	**5.85**	**14.11**
PC	19.11	16.31	85.33	8.98			53.50		12.79
R1	18.71	15.62	83.43	9.51			73.28		13.35
R2	17.75	14.67	82.61	10.15	0.81	63686	52.15	5.19	13.74
R3	19.79	16.82	84.95	8.70	0.71	72222	52.28	6.07	15.62

Table 2: Performance Results by Cycle of BBz07155 in Comparison to Benchmark Variety, B79474, on an Alfisol Location

BBz08353

VARIETY INFORMATION SHEET

BBz08353

Description

BBz08353 was tested in two trials, one in the Hill View area and one in the Santa Cruz area. The results are from the plant cane, 1st, 2nd and 3rd ratoon crops. The variety is a mid-maturing variety appropriate for Clay Soils

Cross: BR00010 x POLYCC

General Performance
Vigorous Germination and Growth
High Sucrose Content

Limiting Features
Not Adaptable to Hill View
High Fiber

Site	Variety	Brix	Pol	Purity	TC/TS	Kg/Stalk	Stalks/Ha	TCH	TSH	Fiber
Hill View	BBz08353	21.28	18.39	86.38	7.91	0.81	59384	50.65	6.44	15.87
	B79474 (T1)	20.66	17.75	85.87	8.23	0.98	55850	60.08	7.42	14.90
	BBz08353 to T1	103%	104%	101%	96%	83%	106%	84%	87%	107%
	CP722086 (T2)	20.72	18.03	86.96	8.05	0.74	54844	46.64	5.68	14.36
	BBz08353 to T2	103%	102%	99%	98%	110%	108%	109%	113%	111%
Santa Cruz	BBz08353	20.75	17.54	84.54	8.38	1.09	67629	77.42	9.07	15.59
	B79474 (T1)	20.38	17.27	84.73	8.49	1.20	51413	64.21	7.45	14.36
	BBz08353 to T1	102%	102%	100%	99%	90%	132%	121%	122%	109%
	CP722086 (T2)	19.82	16.91	85.24	8.67	1.09	53687	61.89	7.00	12.71
	BBz08353 to T2	105%	104%	99%	97%	99%	126%	125%	129%	123%

Disease and Pest Information	
Smut	Resistant
Rust	Resistant
RSD	Resistant
Froghoppers	Tolerant
Stemborers	Intermediate Resistant

Agronomic Characteristic	
Canopy	Good
Flowering	None Observed
Lodging	Erect
Ratooning	Good
Trashing	Good

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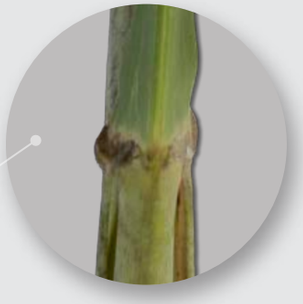
BBz08353
IDENTIFICATION GUIDE

Distinguishing characteristic

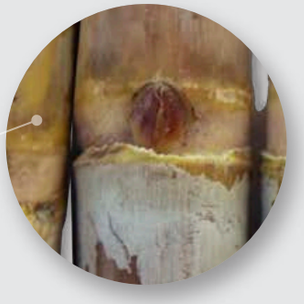
Pointed Canopy

Leaf Canopy
Leaves display an erect growing pattern. The leaves do not bend.

Leaf Sheath
The leaf sheath is green with deep purple patches. The sheath tends to split on both ends. There is no necrotic layer on the sheath and pubescence is minimal. Small auricles are present.



Dewlap
The dewlap is light green displaying moderate wax coverage.



Bud Eye
The buds are winged and large and tend to protrude from the stalk making it easy to fall off. Buds are dark yellow with purple hues and turn completely purple with exposure to sunlight. The growth ring is uniform around the internode and light yellow to white in color.

Stalks Placed Together & Three Piece Sample
Stalks average 1.0 cm in diameter and demonstrates a generally straight pattern. Unexposed stalks are bronze in color, yellowing at the base of the internode. Sun Exposure turns the bronze color into a deep purple. The stalk wax is moderate to heavy and does not rub off easily. The stalk wax can be heavy to mask the stalk color. The internodes shape is straight and presents no growth cracks.

Belize Sugar Industries Limited
Agricultural Research
Tower Hill, Orange Walk

Release Statement of Sugarcane Variety BBz08353

The Belize Sugar Industries Limited (BSI) Agricultural Research department has selected and announces the release of new variety BBz08353.

BBz08353 was produced from a cross made in December 2006 at the West Indies Central Sugar Cane Breeding Station. The female part is BR00010 and the male parent is a Polycross. BBz08353 is recommended for the Inceptisols of Santa Cruz only. Highlights include good productivity and high cane quality.

BBz08353 was evaluated via replicated trials located in the Hill View and Santa Cruz farms. The experimental design utilized was a randomized complete block design with 4 replications. The trials were planted in late 2015 at the two locations mentioned previously and evaluated from 2017 – 2020. The trials were evaluated over the plant cane, first ratoon, second ratoon & third ratoon at both locations. The reference variety was B79474 for productivity and CP722086 for quality. They also acted simultaneously as mid maturing and early maturing check respectively.

The mean productivity (TCH) of BBz08353 was 14% higher than CP722086 & equal to B79474. The average sugar per hectare (TSH) was 19% higher than CP722086 & 2% higher than B79474. The mean amount of cane to produce a ton of sugar (TC/TS) was 3% lower than CP722086 and 3% lower than B79474. The sucrose content was 3% higher than CP722086 and 3% higher than B79474. The average stalk weight was 1% higher than CP722086 & 13% lower than B79474. The mean stalk population was 17% higher than B79474 and 16% higher than CP722086.

BBz08353 has shown good resistance to rust & smut. Immunoassays also showed BBz08353 is resistant to RSD. It is tolerant of mild froghopper damage. It displayed intermediate resistance to stemborers.

The 2020 drought influenced the R3 cycle data. Analysis of the data determined that selections remained with the same with R3 data and without R3 data.

The data contained in these documents have been collected under controlled conditions. Every effort has been made to ensure the accurate data collection and reporting however the author makes no representation, warranty or guarantee relating to the information contained in this work. The research contained in this document considerably reduces end user risk but there still exists a level of risk by the end user. The author or associates cannot be held liable for any loss or damages incurred whether direct or indirect caused by the reliance on information in these documents.

BBz08353 was tested on Inceptisols at Hill View and Vertisols at Santa Cruz.
The following information offers a comparison between the control varieties and the new cultivar.

Stage IV Results Over Four Cycles for BBz08353: Hill View Location

	Brix	Pol	Purity	TC/TS	Kg/Stalk	Stalks/Ha	TCH	TSH	Fiber
BBz08353	**21.28**	**18.39**	**86.38**	**7.91**	**0.81**	**59384**	**50.65**	**6.44**	**15.87**
PC	22.10	19.48	88.15	7.37	1.16	64583	59.46	8.04	15.82
R1	20.83	18.08	86.77	8.01	0.92	59167	53.81	6.80	17.46
R2	20.48	17.40	84.91	8.43	0.75	72708	54.20	6.48	14.12
R3	21.13	17.92	84.75	8.20	0.73	49959	37.51	4.51	15.06
B79474	**20.66**	**17.75**	**85.87**	**8.23**	**0.98**	**55850**	**60.08**	**7.42**	**14.90**
PC	21.52	18.88	87.70	7.63	1.28	61224	73.27	9.66	15.07
R1	20.60	17.89	86.84	8.09	1.12	51528	59.93	7.39	16.04
R2	19.61	16.71	85.18	8.74	0.92	59186	54.22	6.22	13.43
R3	20.24	16.87	83.33	8.78	0.86	54135	49.17	5.63	14.11
CP722086	**20.72**	**18.03**	**86.96**	**8.05**	**0.74**	**54844**	**46.64**	**5.68**	**14.36**
PC	21.33	19.04	89.28	7.49	1.06	57318	62.98	8.39	14.16
R1	20.67	18.04	87.29	8.00	0.77	48194	36.49	4.57	15.23
R2	19.31	17.09	88.51	8.38	0.67	62437	41.62	4.97	11.85
R3	20.41	17.28	84.57	8.54	0.70	58387	39.71	4.65	13.85

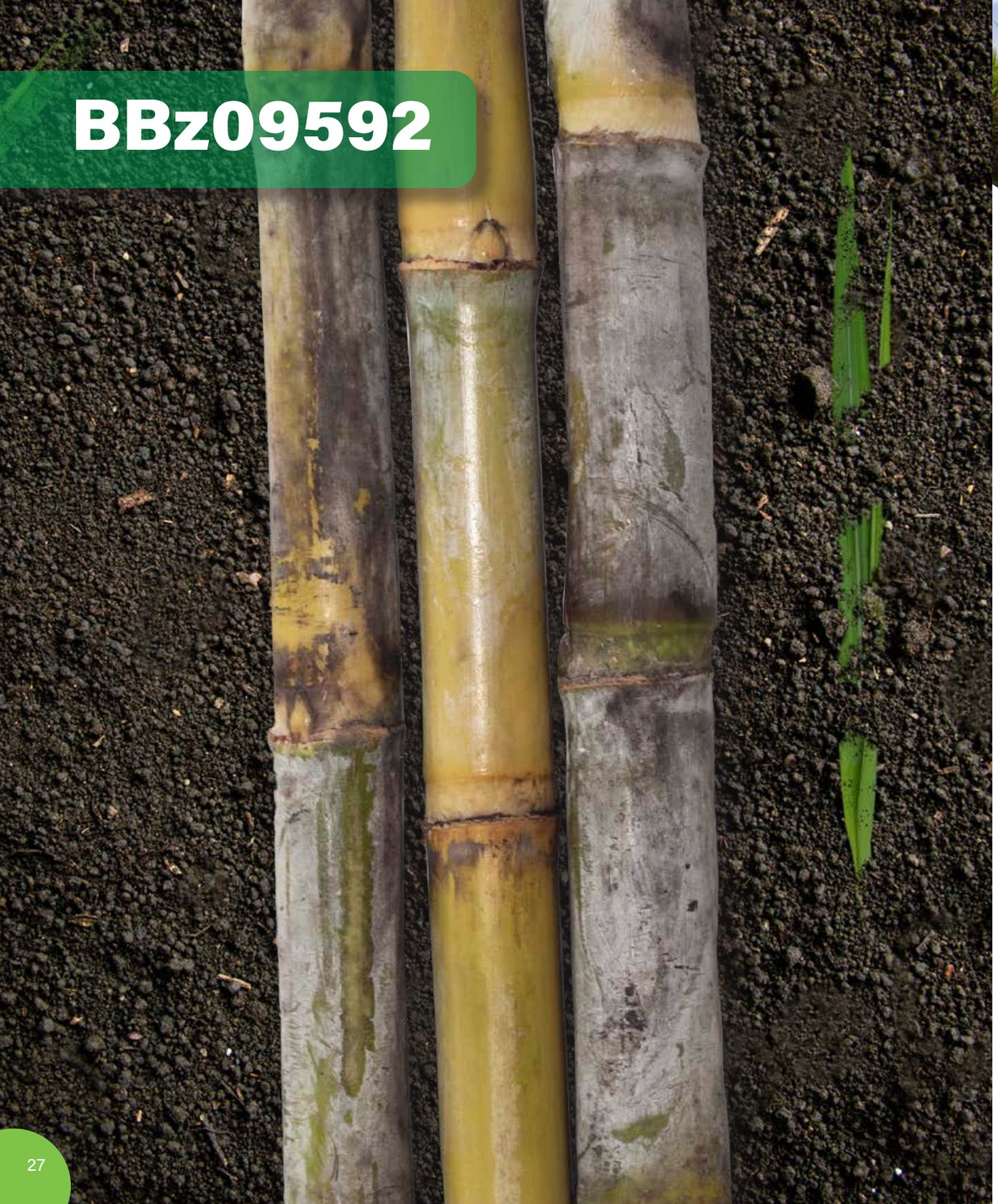
Table 1: Performance Results by Cycle of BBz08353 in Comparison to Benchmark Variety, B79474 & CP722086, on a Inceptisol Location

Stage IV Results Over Four Cycles for BBz08353: Santa Cruz Location

	Brix	Pol	Purity	TC/TS	Kg/Stalk	Stalks/Ha	TCH	TSH	Fiber
BBz08353	**20.75**	**17.54**	**84.54**	**8.38**	**1.09**	**67629**	**77.42**	**9.07**	**15.59**
PC	20.01	16.89	84.29	8.78	1.56	79384	124.53	14.09	15.09
R1	19.86	16.86	84.88	8.68	1.20	72500	86.72	10.00	16.09
R2	21.08	17.76	84.19	8.29	0.98	67395	65.73	7.96	14.71
R3	21.61	18.30	84.64	8.02	0.90	33407	24.17	3.04	16.17
B79474	**20.38**	**17.27**	**84.73**	**8.49**	**1.20**	**51413**	**64.21**	**7.45**	**14.36**
PC	20.58	17.55	85.28	8.32	1.88	66692	122.23	14.50	14.09
R1	19.93	17.06	85.59	8.54	1.19	62083	72.81	8.52	14.30
R2	20.28	16.92	83.43	8.73	1.32	61248	81.27	9.30	14.07
R3	20.80	17.71	85.14	8.26	0.93	25815	24.05	2.93	14.79
CP722086	**19.82**	**16.91**	**85.24**	**8.67**	**1.09**	**53687**	**61.89**	**7.00**	**12.71**
PC	19.42	16.76	86.24	8.68	1.69	90686	156.85	17.81	13.05
R1	19.36	16.67	86.07	8.71	1.20	69028	81.09	9.37	12.61
R2	19.32	16.12	83.37	9.21	1.06	56163	58.18	6.37	12.49
R3	20.93	18.04	86.17	8.05	0.87	23537	20.83	2.59	12.93

Table 2: Performance Results by Cycle of BBz08353 in Comparison to Benchmark Variety, B79474 & CP722086, on a Vertisol Location

***Note that R3 data was heavily impacted by drought conditions**



BBz09592

VARIETY INFORMATION SHEET

BBz09592

Description

BBz09592 was tested in two trials, one in the Hill View area and one in the Santa Cruz area. The results are from the plant cane, 1st, 2nd and 3rd ratoon crops. The variety is a Late-Early variety appropriate for Clay Soils.

Cross: BR030001 x POLYCC

General Performance
High Cane Quality
Excellent Canopy Closure
Drought Tolerant

Limiting Features

Site	Variety	Brix	Pol	Purity	TC/TS	Kg/Stalk	Stalks/Ha	TCH	TSH	Fiber
Hill View	BBz09592	21.36	18.79	87.89	7.68	0.98	58497	58.14	7.55	14.68
	B79474 (T1)	20.65	17.75	85.90	8.22	1.05	55758	59.17	7.27	14.95
	BBz09592 to T1	103%	106%	102%	93%	93%	105%	98%	104%	98%
	CP722086 (T2)	20.45	17.94	87.71	8.04	0.88	49627	44.11	5.51	13.52
	BBz09592 to T2	104%	105%	100%	96%	111%	118%	132%	137%	109%
Santa Cruz	BBz09592	20.81	17.86	85.81	8.17	1.10	59800	67.83	8.24	13.96
	B79474 (T1)	20.59	17.46	84.78	8.41	1.27	54659	75.39	9.06	14.85
	BBz09592 to T1	101%	102%	101%	97%	87%	109%	90%	91%	94%
	CP722086 (T2)	19.89	17.05	85.73	8.55	0.96	44884	44.87	5.22	12.44
	BBz09592 to T2	105%	105%	100%	96%	115%	133%	151%	158%	112%

Disease and Pest Information	
Smut	Resistant
Rust	Resistant
RSD	Resistant
Froghoppers	Tolerant
Stemborers	Resistant

Agronomic Characteristic	
Canopy	Closes Early
Flowering	Slight
Lodging	Erect
Ratooning	Good
Trashing	Average

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BBz09592
IDENTIFICATION GUIDE

Distinguishing characteristic

Canopy closure

Leaf Canopy
The leaves are wide making canopy closure rapid. The leaves curve at the midway point of the leaf.

Leaf Sheath
The leaf sheath is olive green. There is a necrotic layer on the sheath that widens to the bottom. Pubescence is isolated to the younger leaves. Long pointed auricles are present that form part of the necrotic layer.

Dewlap
The dewlap is dark olive green displaying heavy wax coverage.

Bud Eye
Bud eyes do not present wings. They are small and pointed, almost triangular. Buds are yellow and turn dark green with sun exposure. The growth ring is uniform around the internode and ranged from yellow to light green/purpose with sun exposure.

Stalks Placed Together & Three Piece Sample
Stalks average 1.1 cm in diameter and demonstrates straight pattern. Unexposed stalks are yellow-light green whilst exposed stalks turn a dark green - deep purple. The stalk wax is heavy and lightens the color of the stalks. The stalk wax does not rub off easily. The shape of the internodes are straight and presents no growth cracks.

Belize Sugar Industries Limited
Agricultural Research
Tower Hill, Orange Walk

Release Statement of Sugarcane Variety BBz09592

The Belize Sugar Industries Limited (BSI) Agricultural Research department has selected and announces the release of new variety BBz09592.

BBz09592 was produced from a cross made in December 2007 at the West Indies Central Sugar Cane Breeding Station. The female parent is BR03001 and the male parent is a Polycross. BBz09592 is recommended for the Inceptisols of Hill View & Santa Cruz. Highlights include good cane quality and resistance to stemborers.

BBz09592 was evaluated via replicated trials located in the Hill View and Santa Cruz farms. The experimental design utilized was a randomized complete block design with 4 replications. The trials were planted in late 2015 at the two locations mentioned previously and evaluated from 2017 – 2020. The trials were evaluated over the plant cane, first ratoon, second ratoon & third ratoon at both locations. The reference variety was B79474 for productivity and CP722086 for quality. They also acted simultaneously as mid maturing and early maturing check respectively.

The mean productivity (TCH) of BBz09592 was 33% higher than CP722086 & 1% higher than B79474. The average sugar per hectare (TSH) was 3% higher than CP722086 & 36% higher than B79474. The mean amount of cane to produce a ton of sugar (TC/TS) was 3% higher than CP722086 and 3% higher than B79474. The sucrose content was 3% higher than CP722086 and 3% higher than B79474. The average stalk weight was 20% higher than CP722086 & 6% lower than B79474. The mean stalk population was 6% higher than B79474 and 11% higher than CP722086.

BBz09592 has shown good resistance to rust & smut. Immunoassays also showed BBz09592 is resistant to RSD. It is tolerant of mild froghopper damage. It is resistant to stemborers.

The 2020 drought influenced the R3 cycle data. Analysis of the data determined that selections remained with the same with R3 data and without R3 data.

BBz09592 was tested on Inceptisols at Hill View and Vertisols at Santa Cruz.
The following information offers a comparison between the control varieties and the new cultivar.

Stage IV Results Over Four Cycles for BBz09592: Hill View Location

	Brix	Pol	Purity	TC/TS	Kg/Stalk	Stalks/Ha	TCH	TSH	Fiber
BBz09592	**21.36**	**18.79**	**87.89**	**7.68**	**0.98**	**58497**	**58.14**	**7.55**	**14.68**
PC	22.00	19.60	89.06	7.31	1.07	59829	66.79	8.93	14.45
R1	21.10	18.61	88.18	7.72	0.90	53194	47.51	6.17	15.64
R2	20.81	18.38	88.32	7.80	0.92	68685	63.23	8.10	12.42
R3	21.27	18.38	86.35	7.93	0.99	59070	59.23	7.58	14.67
B79474	**20.65**	**17.75**	**85.90**	**8.22**	**1.05**	**55758**	**59.17**	**7.27**	**14.95**
PC	21.13	18.35	86.84	7.90	1.16	60995	71.34	9.09	14.98
R1	20.68	17.94	86.74	8.07	1.04	48611	50.39	6.25	16.00
R2	19.61	16.71	85.18	8.74	0.92	59186	54.22	6.22	13.43
R3	20.24	16.96	83.76	8.70	0.94	56033	53.98	6.23	14.06
CP722086	**20.45**	**17.94**	**87.71**	**8.04**	**0.88**	**49627**	**44.11**	**5.51**	**13.52**
PC	20.69	18.35	88.69	7.81	1.01	55542	57.69	7.34	13.40
R1	20.67	18.27	88.34	7.86	0.84	41482	34.64	4.44	14.50
R2	19.39	16.98	87.57	8.48	0.76	66476	50.56	5.97	12.74
R3	20.36	17.53	86.04	8.31	0.84	47226	39.30	4.76	12.78

Table 1: Performance Results by Cycle of BBz09592 in Comparison to Benchmark Variety, B79474 & CP722086, on a Inceptisol Location

Stage IV Results Over Four Cycles for BBz09592: Santa Cruz Location

	Brix	Pol	Purity	TC/TS	Kg/Stalk	Stalks/Ha	TCH	TSH	Fiber
BBz09592	**20.81**	**17.86**	**85.81**	**8.17**	**1.10**	**59800**	**67.83**	**8.24**	**13.96**
PC	20.32	17.60	86.59	8.24	1.33	65749	88.98	10.77	13.89
R1	20.61	17.90	86.82	8.09	1.18	55833	64.53	8.02	14.92
R2	20.70	17.38	83.96	8.49	1.02	68154	69.01	8.18	13.85
R3	21.28	18.39	86.38	7.90	1.03	34319	38.22	4.86	13.15
B79474	**20.59**	**17.46**	**84.78**	**8.41**	**1.27**	**54659**	**75.39**	**9.06**	**14.85**
PC	20.55	17.76	86.36	8.18	1.81	51738	96.53	13.68	14.17
R1	19.81	16.93	85.40	8.65	1.39	70695	96.85	11.27	14.45
R2	20.79	17.40	83.66	8.49	1.24	65149	79.74	9.41	14.70
R3	21.18	17.97	84.86	8.15	0.97	32314	27.80	3.49	15.63
CP722086	**19.89**	**17.05**	**85.73**	**8.55**	**0.96**	**44884**	**44.87**	**5.22**	**12.44**
PC	19.43	16.85	86.65	8.63	1.08	70427	88.31	10.29	12.38
R1	19.50	16.84	86.35	8.62	1.08	55261	57.06	6.67	12.40
R2	19.70	16.66	84.54	8.81	0.99	49332	48.34	5.50	12.26
R3	20.71	17.78	85.85	8.18	0.75	20702	15.40	1.88	12.67

Table 2: Performance Results by Cycle of BBz09592 in Comparison to Benchmark Variety, B79474 & CP722086, on a Vertisol Location

***Note that R3 data was heavily impacted by drought conditions**

BBz09612

VARIETY INFORMATION SHEET

BBz09612

Description

BBz09612 was tested in two trials, one in the Hill View area and one in the Santa Cruz area. The results are from the plant cane, 1st, 2nd and 3rd ratoon crops. The variety is a Mid Maturing variety appropriate for Clay Soils

Cross: BJ84105 x POLYCC

General Performance

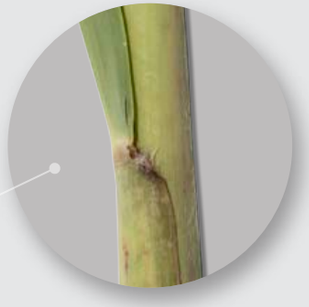
Limiting Features

Site	Variety	Brix	Pol	Purity	TC/TS	Kg/Stalk	Stalks/Ha	TCH	TSH	Fiber
Hill View	BBz09612	20.10	17.29	85.97	8.44	1.03	55733	58.63	7.03	15.08
	B79474 (T1)	20.65	17.75	85.90	8.22	1.05	55758	59.17	7.27	14.95
	BBz09612 to T1	97%	97%	100%	103%	98%	100%	99%	97%	101%
	CP722086 (T2)	20.45	17.94	87.71	8.04	0.88	49627	44.11	5.51	13.52
	BBz09612 to T2	98%	96%	98%	105%	117%	112%	133%	128%	112%
Santa Cruz	BBz09612	20.24	17.18	84.89	8.53	1.07	55711	62.57	7.31	14.32
	B79474 (T1)	20.59	17.46	84.78	8.41	1.27	54659	75.39	9.06	14.85
	BBz09612 to T1	98%	98%	100%	101%	84%	102%	83%	81%	96%
	CP722086 (T2)	19.89	17.05	85.73	8.55	0.96	44884	44.87	5.22	12.44
	BBz09612 to T2	102%	101%	99%	100%	111%	124%	139%	140%	115%

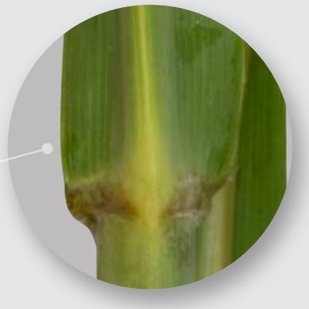
Disease and Pest Information	
Smut	Resistant
Rust	Resistant
RSD	Resistant
Froghoppers	Tolerant
Stemborers	Moderately Resistant

Agronomic Characteristic	
Canopy	Slightly Open
Flowering	None Observed
Lodging	Erect
Ratooning	Good
Trashing	Average

BBz09612
IDENTIFICATION GUIDE



Leaf Sheath
The leaf sheath is bright green darkening slight with sun exposure. Leaf sheath margins present no necrotic layer. The leaf sheath has pubescence on all leaves and contains small auricles.



Dewlap
The Dewlap is olive green in color displaying minor wax coverage

Bud Eye
The buds are small and tend to bulge from the stalk. The buds present no wings. The unexposed buds are yellow and exposed buds turn green. The growth rings are wider than the eye. The unexposed growth rings are yellow/white and darken with sun exposure.

Stalks Placed Together & Three Piece Sample
Stalks average 1.0 cm in diameter and demonstrates a zig zag pattern. Unexposed stalks are light green and exposed stalks turn olive green – bronze. The stalks have heavy wax that rubs off easily. The internode shape are mostly straight and cylindrical. The stalk presents no growth cracks.

Belize Sugar Industries Limited
Agricultural Research
Tower Hill, Orange Walk

Release Statement of Sugarcane Variety BBz09612

The Belize Sugar Industries Limited (BSI) Agricultural Research department has selected and announces the release of new variety BBz09612.

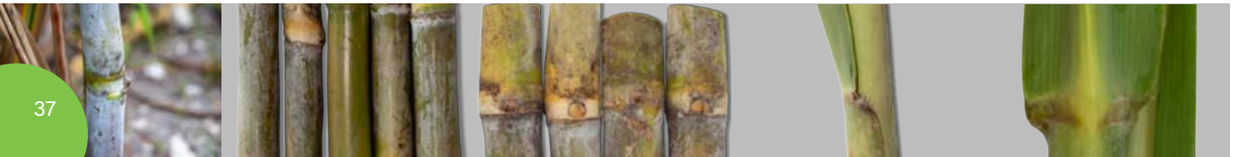
BBz09612 was produced from a cross made in December 2007 at the West Indies Central Sugar Cane Breeding Station. The female parent is BJ84105 and the male parent is a Polycross. BBz09612 is recommended for the Inceptisols of Hill View only. Highlights include vigorous growth.

BBz09612 was evaluated via replicated trials located in the Hill View and Santa Cruz farms. The experimental design utilized was a randomized complete block design with 4 replications. The trials were planted in late 2015 at the two locations mentioned previously and evaluated from 2017 – 2020. The trials were evaluated over the plant cane, first ratoon, second ratoon & third ratoon at both locations. The reference variety was B79474 for productivity and CP722086 for quality. They also acted simultaneously as mid maturing and early maturing check respectively.

The mean productivity (TCH) of BBz09612 was 32% higher than CP722086 & equal to B79474. The average sugar per hectare (TSH) was 30% higher than CP722086 & 2% lower than B79474. The mean amount of cane to produce a ton of sugar (TC/TS) was 3% lower than CP722086 and 2% lower than B79474. The sucrose content was 2% lower than CP722086 and 2% lower than B79474. The average stalk weight was 19% higher than CP722086 & 7% lower than B79474. The mean stalk population was 4% higher than B79474 and 9% higher than CP722086.

BBz09612 has shown good resistance to rust & smut. Immunoassays also showed BBz09612 is resistant to RSD. It is tolerant of mild froghopper damage. It is moderately resistant to stemborers.

The 2020 drought influenced the R3 cycle data. Analysis of the data determined that selections remained with the same with R3 data and without R3 data.



BBz09612 was tested on Inceptisols at Hill View and Vertisols at Santa Cruz.
The following information offers a comparison between the control varieties and the new cultivar.

Stage IV Results Over Four Cycles for BBz09612: Hill View Location

	Brix	Pol	Purity	TC/TS	Kg/Stalk	Stalks/Ha	TCH	TSH	Fiber
BBz09612	**20.10**	**17.29**	**85.97**	**8.44**	**1.03**	**55733**	**58.63**	**7.03**	**15.08**
PC	20.86	18.14	86.94	7.97	1.21	62879	77.12	9.68	14.93
R1	19.88	17.25	86.80	8.39	0.92	53611	49.39	5.90	16.16
R2	19.33	16.79	86.80	8.64	0.94	63221	59.68	6.93	14.31
R3	19.79	16.58	83.71	8.93	0.99	48213	48.14	5.42	14.35
B79474	**20.65**	**17.75**	**85.90**	**8.22**	**1.05**	**55758**	**59.17**	**7.27**	**14.95**
PC	21.13	18.35	86.84	7.90	1.16	60995	71.34	9.09	14.98
R1	20.68	17.94	86.74	8.07	1.04	48611	50.39	6.25	16.00
R2	19.61	16.71	85.18	8.74	0.92	59186	54.22	6.22	13.43
R3	20.24	16.96	83.76	8.70	0.94	56033	53.98	6.23	14.06
CP722086	**20.45**	**17.94**	**87.71**	**8.04**	**0.88**	**49627**	**44.11**	**5.51**	**13.52**
PC	20.69	18.35	88.69	7.81	1.01	55542	57.69	7.34	13.40
R1	20.67	18.27	88.34	7.86	0.84	41482	34.64	4.44	14.50
R2	19.39	16.98	87.57	8.48	0.76	66476	50.56	5.97	12.74
R3	20.36	17.53	86.04	8.31	0.84	47226	39.30	4.76	12.78

Table 1: Performance Results by Cycle of BBz09612 in Comparison to Benchmark Variety, B79474 & CP722086, on a Inceptisol Location

Stage IV Results Over Four Cycles for BBz09612: Santa Cruz Location

	Brix	Pol	Purity	TC/TS	Kg/Stalk	Stalks/Ha	TCH	TSH	Fiber
BBz09612	**20.24**	**17.18**	**84.89**	**8.53**	**1.07**	**55711**	**62.57**	**7.31**	**14.32**
PC	20.18	17.43	86.32	8.35	1.06	64404	100.40	11.88	14.49
R1	20.12	17.39	86.39	8.34	1.26	55657	70.75	8.45	14.86
R2	20.25	16.69	82.40	8.91	0.94	59806	55.65	6.27	14.01
R3	20.37	17.40	85.39	8.39	1.01	27941	22.42	2.74	14.04
B79474	**20.59**	**17.46**	**84.78**	**8.41**	**1.27**	**54659**	**75.39**	**9.06**	**14.85**
PC	20.55	17.76	86.36	8.18	1.81	51738	96.53	13.68	14.17
R1	19.81	16.93	85.40	8.65	1.39	70695	96.85	11.27	14.45
R2	20.79	17.40	83.66	8.49	1.24	65149	79.74	9.41	14.70
R3	21.18	17.97	84.86	8.15	0.97	32314	27.80	3.49	15.63
CP722086	**19.89**	**17.05**	**85.73**	**8.55**	**0.96**	**44884**	**44.87**	**5.22**	**12.44**
PC	19.43	16.85	86.65	8.63	1.08	70427	88.31	10.29	12.38
R1	19.50	16.84	86.35	8.62	1.08	55261	57.06	6.67	12.40
R2	19.70	16.66	84.54	8.81	0.99	49332	48.34	5.50	12.26
R3	20.71	17.78	85.85	8.18	0.75	20702	15.40	1.88	12.67

Table 2: Performance Results by Cycle of BBz09612 in Comparison to Benchmark Variety, B79474 & CP722086, on an Vertisol Location

***Note that R3 data was heavily impacted by drought conditions**

VARIETY INFORMATION SHEET

BBz09626

Description

BBz09626 was tested in two trials, one in the Hill View area and one in the Santa Cruz area. The results are from the plant cane, 1st, 2nd and 3rd ratoon crops. The variety is a Mid Maturing variety appropriate for Clay Soils

Cross: BR00010 x POLYCC

General Performance Observed
Tall Cane

Limiting Features
Slight High Fiber Content

Site	Variety	Brix	Pol	Purity	TC/TS	Kg/Stalk	Stalks/Ha	TCH	TSH	Fiber
Hill View	BBz09626	19.86	17.14	86.31	8.49	0.91	54606	50.97	6.06	15.71
	B79474 (T1)	20.65	17.75	85.90	8.22	1.05	55758	59.17	7.27	14.95
	BBz09626 to T1	96%	97%	100%	103%	87%	98%	86%	83%	105%
	CP722086 (T2)	20.45	17.94	87.71	8.04	0.88	49627	44.11	5.51	13.52
	BBz09626 to T2	97%	96%	98%	106%	104%	110%	116%	110%	116%
Santa Cruz	BBz09626	19.52	16.49	84.45	8.92	0.96	60514	75.12	8.32	15.22
	B79474 (T1)	20.59	17.46	84.78	8.41	1.27	54659	75.39	9.06	14.85
	BBz09626 to T1	95%	94%	100%	106%	76%	111%	100%	92%	102%
	CP722086 (T2)	19.89	17.05	85.73	8.55	0.96	44884	44.87	5.22	12.44
	BBz09626 to T2	98%	97%	99%	104%	99%	135%	167%	159%	122%

Disease and Pest Information	
Smut	Resistant
Rust	Resistant
RSD	Resistant
Froghoppers	Tolerant
Stemborers	Moderately Susceptible

Agronomic Characteristic	
Canopy	Slightly Open
Flowering	None Observed
Lodging	Erect
Ratooning	Good
Trashing	Holds Trash

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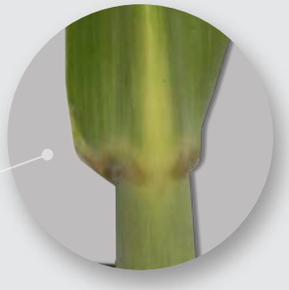
BBz09626
IDENTIFICATION GUIDE

Distinguishing characteristic

The contrast between areas of the stalk exposed and not exposed to sunlight is very marked.

Leaf Sheath

The leaf sheath is green and develop purple areas with sun exposure. Leaf sheath margins present no necrotic layer. The leaf sheath presents little pubescence on younger leaves only and has long pointed auricles.



Dewlap

The Dewlap is light olive green with thin wax coverage.

Bud Eye

The buds are small in size and protrude slightly. The buds present wings. The unexposed buds are yellow and the exposed buds turn purple/dark green. The growth ring is uniform irrespective of the eye bud. The unexposed growth ring is yellow in color turning green in color upon sun exposure.

Stalks Placed Together & Three Piece Sample

Stalks average 0.9 cm in diameter and demonstrates a slight zig zag pattern. The exposed stalks are light yellow to green in color and exposed stalks turn purple. The stalks have a thin wax layer that rubs off easily. The internode shape bulges at the middle. The stalk presents no growth cracks.

Belize Sugar Industries Limited
Agricultural Research
Tower Hill, Orange Walk

Release Statement of Sugarcane Variety BBz09626

The Belize Sugar Industries Limited (BSI) Agricultural Research department has selected and announces the release of new variety BBz09626.

BBz09626 was produced from a cross made in December 2007 at the West Indies Central Sugar Cane Breeding Station. The female parent is BR00010 and the male parent is a Polycross. BBz09626 is recommended for the Inceptisols of Santa Cruz only. Highlights include profuse tillering.

BBz09626 was evaluated via replicated trials located in the Hill View and Santa Cruz farms. The experimental design utilized was a randomized complete block design with 4 replications. The trials were planted in late 2015 at the two locations mentioned previously and evaluated from 2017 – 2020. The trials were evaluated over the plant cane, first ratoon, second ratoon & third ratoon at both locations. The reference variety was B79474 for productivity and CP722086 for quality. They also acted simultaneously as mid maturing and early maturing check respectively.

The mean productivity (TCH) of BBz09626 was 32% higher than CP722086 & equal to B79474. The average sugar per hectare (TSH) was 30% higher than CP722086 & 2% lower than B79474. The mean amount of cane to produce a ton of sugar (TC/TS) was 3% lower than CP722086 and 2% lower than B79474. The sucrose content was 2% lower than CP722086 and 2% lower than B79474. The average stalk weight was 19% higher than CP722086 & 7% lower than B79474. The mean stalk population was 4% higher than B79474 and 9% higher than CP722086.

BBz09626 has shown good resistance to rust & smut. Immunoassays also showed BBz09626 is resistant to RSD. It is tolerant of mild froghopper damage. It is moderately resistant to stemborers.

The 2020 drought influenced the R3 cycle data. Analysis of the data determined that selections remained with the same with R3 data and without R3 data.

BBz09626 was tested on Inceptisols at Hill View and Vertisols at Santa Cruz.
The following information offers a comparison between the control varieties and the new cultivar.

Stage IV Results Over Four Cycles for BBz09626: Hill View Location

	Brix	Pol	Purity	TC/TS	Kg/Stalk	Stalks/Ha	TCH	TSH	Fiber
BBz09626	**19.86**	**17.14**	**86.31**	**8.49**	**0.91**	**54605**	**50.97**	**6.06**	**15.71**
PC	20.47	17.78	86.78	8.17	0.96	51487	50.72	6.32	15.93
R1	19.45	17.00	87.42	8.48	0.94	51527	49.09	5.81	16.88
R2	19.35	16.89	87.24	8.55	0.90	71417	64.93	7.56	14.45
R3	19.82	16.74	84.42	8.78	0.84	55198	48.45	5.56	14.74
B79474	**20.65**	**17.75**	**85.90**	**8.22**	**1.05**	**55758**	**59.17**	**7.27**	**14.95**
PC	21.13	18.35	86.84	7.90	1.16	60995	71.34	9.09	14.98
R1	20.68	17.94	86.74	8.07	1.04	48611	50.39	6.25	16.00
R2	19.61	16.71	85.18	8.74	0.92	59186	54.22	6.22	13.43
R3	20.24	16.96	83.76	8.70	0.94	56033	53.98	6.23	14.06
CP722086	**20.45**	**17.94**	**87.71**	**8.04**	**0.88**	**49627**	**44.11**	**5.51**	**13.52**
PC	20.69	18.35	88.69	7.81	1.01	55542	57.69	7.34	13.40
R1	20.67	18.27	88.34	7.86	0.84	41482	34.64	4.44	14.50
R2	19.39	16.98	87.57	8.48	0.76	66476	50.56	5.97	12.74
R3	20.36	17.53	86.04	8.31	0.84	47226	39.30	4.76	12.78

Table 1: Performance Results by Cycle of BBz09626 in Comparison to Benchmark Variety, B79474 & CP722086, on a Inceptisol Location

Stage IV Results Over Four Cycles for BBz09626: Santa Cruz Location

	Brix	Pol	Purity	TC/TS	Kg/Stalk	Stalks/Ha	TCH	TSH	Fiber
BBz09626	**19.52**	**16.49**	**84.45**	**8.92**	**0.96**	**60514**	**75.12**	**8.32**	**15.22**
PC	19.26	16.45	85.39	8.87	1.41	61623	89.95	10.10	14.72
R1	18.98	16.25	85.59	8.97	1.39	66111	93.47	10.43	15.90
R2	19.46	16.00	82.21	9.33	1.05	60564	63.89	6.86	15.26
R3	20.15	17.13	84.97	8.54	0.60	36444	25.49	3.06	14.73
B79474	**20.59**	**17.46**	**84.78**	**8.41**	**1.27**	**54659**	**75.39**	**9.06**	**14.85**
PC	20.55	17.76	86.36	8.18	1.81	51738	96.53	13.68	14.17
R1	19.81	16.93	85.40	8.65	1.39	70695	96.85	11.27	14.45
R2	20.79	17.40	83.66	8.49	1.24	65149	79.74	9.41	14.70
R3	21.18	17.97	84.86	8.15	0.97	32314	27.80	3.49	15.63
CP722086	**19.89**	**17.05**	**85.73**	**8.55**	**0.96**	**44884**	**44.87**	**5.22**	**12.44**
PC	19.43	16.85	86.65	8.63	1.08	70427	88.31	10.29	12.38
R1	19.50	16.84	86.35	8.62	1.08	55261	57.06	6.67	12.40
R2	19.70	16.66	84.54	8.81	0.99	49332	48.34	5.50	12.26
R3	20.71	17.78	85.85	8.18	0.75	20702	15.40	1.88	12.67

Table 2: Performance Results by Cycle of BBz09626 in Comparison to Benchmark Variety, B79474 & CP722086, on an Vertisol Location

***Note that R3 data was heavily impacted by drought conditions**

BBz081124

VARIETY INFORMATION SHEET

BBz081124

Description

BBz081124 was tested in two trials, one in the Hill View area and one in the Santa Cruz area. The results are from the plant cane, 1st, 2nd and 3rd ratoon crops. The variety is a mid-maturing variety appropriate for Clay Soils

Cross: BR96007 x POLYCC

General Performance Observed
Drought Tolerant
Vigorous Growth

Limiting Features
Herbicide Susceptibility
Not Adaptable to Hill View

Site	Variety	Brix	Pol	Purity	TC/TS	Kg/Stalk	Stalks/Ha	TCH	TSH	Fiber
Tower Hill	BBz081124	20.30	17.30	85.19	8.48	0.92	53737	48.93	5.82	14.39
	B79474 (T1)	20.66	17.75	85.87	8.23	0.98	55850	60.08	7.42	14.90
	BBz081124 to T1	98%	97%	99%	103%	94%	96%	81%	79%	97%
	CP722086 (T2)	20.72	18.03	86.96	8.05	0.74	54844	46.64	5.68	14.36
	BBz081124 to T2	98%	96%	98%	105%	124%	98%	105%	103%	100%
Santa Cruz	BBz081124	20.44	17.11	83.62	8.69	1.27	64205	80.42	9.09	14.50
	B79474 (T1)	20.38	17.27	84.73	8.49	1.20	51413	64.21	7.45	14.36
	BBz081124 to T1	100%	99%	99%	102%	106%	125%	125%	122%	101%
	CP722086 (T2)	19.82	16.91	85.24	8.67	1.09	53687	61.89	7.00	12.71
	BBz081124 to T2	103%	101%	98%	100%	116%	120%	130%	130%	114%

Disease and Pest Information	
Smut	Resistant
Rust	Resistant
RSD	Resistant
Froghoppers	Tolerant
Stemborers	Moderately Resistant

Agronomic Characteristic	
Canopy	Good
Flowering	None Observed
Lodging	Erect
Ratooning	Good
Trashing	Holds Trash

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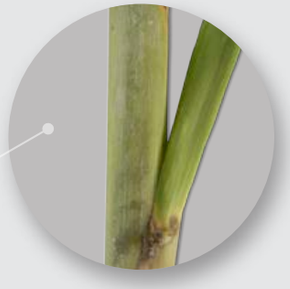
BBz081124
IDENTIFICATION GUIDE

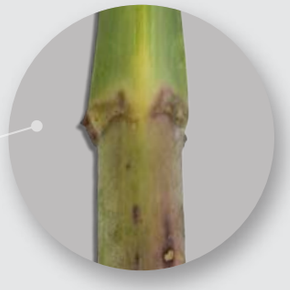
Distinguishing characteristic

Tiger scratches

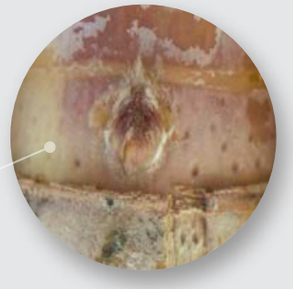


Leaf Canopy
The leaves are wide making canopy closure rapid. The leaves curve at the midway point of the leaf.

Leaf Sheath
The leaf sheath is a light to dark green with purple patches dominating the leaf sheath. The leaf sheath also present thin necrotic layers along the edge. Pubescence is found on younger leaves and tends to be heavy. Medium sized auricles are present.



Dewlap
The dewlap is olive green to purple displaying heavy wax coverage.



Bud Eye
Bud eyes presents wings; wing size varies with age. The eyes are small and pointed. The buds are yellow but turn purple upon sun exposure. The growth ring is uniform and is light yellow although sun exposure changes the color to light purple.

Stalks Placed Together & Three Piece Sample
Stalks average 1.0 cm diameter and demonstrates straight pattern. Unexposed stalks are yellow to bronze yellow and exposed stalks take a complete purple color. The stalks have small markings resembling scratches that darken as the stalk ages. The stalk wax is moderate that rubs off easily. The internodes are straight and does not present growth cracks.

Belize Sugar Industries Limited
Agricultural Research
Tower Hill, Orange Walk

Release Statement of Sugarcane Variety BBz081124

The Belize Sugar Industries Limited (BSI) Agricultural Research department has selected and announces the release of new variety BBz081124.

BBz081124 was produced from a cross made in December 2006 at the West Indies Central Sugar Cane Breeding Station. The female part is BR96007 and the male parent is a Polycross. BBz081124 is recommended for the Inceptisols of Santa Cruz only. Highlights include high drought tolerance and good ratooning ability.

BBz081124 was evaluated via replicated trials located in the Hill View and Santa Cruz farms. The experimental design utilized was a randomized complete block design with 4 replications. The trials were planted in late 2015 at the two locations mentioned previously and evaluated from 2017 – 2020. The trials were evaluated over the plant cane, first ratoon, second ratoon & third ratoon at both locations. The reference variety was B79474 for productivity and CP722086 for quality. They also acted simultaneously as mid maturing and early maturing check respectively.

The mean productivity (TCH) of BBz081124 was 15% higher than CP722086 & equal to B79474. The average sugar per hectare (TSH) was 13% higher than CP722086 & 3% lower than B79474. The mean amount of cane to produce a ton of sugar (TC/TS) was 3% higher than CP722086 and 2% higher than B79474. The sucrose content was 1% lower than CP722086 and 2% lower than B79474. The average stalk weight was 15% higher than CP722086 & 1% lower than B79474. The mean stalk population was 9% higher than B79474 and 7% higher than CP722086.

BBz081124 has shown good resistance to rust & smut. Immunoassays also showed BBz081124 is resistant to RSD. It is tolerant of mild froghopper damage. It displayed moderate resistance to stemborers.

The 2020 drought influenced the R3 cycle data. Analysis of the data determined that selections remained with the same with R3 data and without R3 data.

The data contained in these documents have been collected under controlled conditions. Every effort has been made to ensure the accurate data collection and reporting however the author makes no representation, warranty or guarantee relating to the information contained in this work. The research contained in this document considerably reduces end user risk but there still exists a level of risk by the end user. The author or associates cannot be held liable for any loss or damages incurred whether direct or indirect caused by the reliance on information in these documents.

BBz081124 was tested on Inceptisols at Hill View and Vertisols at Santa Cruz.
The following information offers a comparison between the control varieties and the new cultivar.

Stage IV Results Over Four Cycles for BBz081124: Hill View Location

	Brix	Pol	Purity	TC/TS	Kg/Stalk	Stalks/Ha	TCH	TSH	Fiber
BBz081124	**20.30**	**17.30**	**85.19**	**8.48**	**0.92**	**53737**	**48.93**	**5.82**	**14.39**
PC	20.81	18.14	87.16	7.96		54986	47.48	5.97	14.54
R1	20.15	17.54	87.05	8.24	1.00	53333	54.20	6.63	14.99
R2	19.57	16.53	84.47	8.87	0.92	73695	66.54	7.51	13.48
R3	20.17	16.47	81.59	9.12	0.83	46239	39.24	4.31	13.94
B79474	**20.66**	**17.75**	**85.87**	**8.23**	**0.98**	**55850**	**60.08**	**7.42**	**14.90**
PC	21.52	18.88	87.70	7.63		61224	73.27	9.66	15.07
R1	20.60	17.89	86.84	8.09	1.12	51528	59.93	7.39	16.04
R2	19.61	16.71	85.18	8.74	0.92	59186	54.22	6.22	13.43
R3	20.24	16.87	83.33	8.78	0.86	54135	49.17	5.63	14.11
CP722086	**20.72**	**18.03**	**86.96**	**8.05**	**0.74**	**54844**	**46.64**	**5.68**	**14.36**
PC	21.33	19.04	89.28	7.49		57318	62.98	8.39	14.16
R1	20.67	18.04	87.29	8.00	0.77	48194	36.49	4.57	15.23
R2	19.31	17.09	88.51	8.38	0.67	62437	41.62	4.97	11.85
R3	20.41	17.28	84.57	8.54	0.70	58387	39.71	4.65	13.85

Table 1: Performance Results by Cycle of BBz081124 in Comparison to Benchmark Variety, B79474 & CP722086, on an Inceptisol Location

Stage IV Results Over Four Cycles for BBz081124: Santa Cruz Location

	Brix	Pol	Purity	TC/TS	Kg/Stalk	Stalks/Ha	TCH	TSH	Fiber
BBz081124	**20.44**	**17.11**	**83.62**	**8.69**	**1.27**	**64205**	**80.42**	**9.09**	**14.50**
PC	20.15	17.03	84.31	8.77	1.94	66377	133.52	14.84	14.80
R1	19.81	16.77	84.50	8.85	1.26	78434	90.47	10.05	14.48
R2	20.94	17.21	82.15	8.67	1.15	58440	67.71	7.86	14.39
R3	21.16	18.06	85.34	8.08	1.18	32193	37.93	4.70	14.61
B79474	**20.38**	**17.27**	**84.73**	**8.49**	**1.20**	**51413**	**64.21**	**7.45**	**14.36**
PC	20.58	17.55	85.28	8.32	1.88	66692	122.23	14.50	14.09
R1	19.93	17.06	85.59	8.54	1.19	62083	72.81	8.52	14.30
R2	20.28	16.92	83.43	8.73	1.32	61248	81.27	9.30	14.07
R3	20.80	17.71	85.14	8.26	0.93	25815	24.05	2.93	14.79
CP722086	**19.82**	**16.91**	**85.24**	**8.67**	**1.09**	**53687**	**61.89**	**7.00**	**12.71**
PC	19.42	16.76	86.24	8.68	1.69	90686	156.85	17.81	13.05
R1	19.36	16.67	86.07	8.71	1.20	69028	81.09	9.37	12.61
R2	19.32	16.12	83.37	9.21	1.06	56163	58.18	6.37	12.49
R3	20.93	18.04	86.17	8.05	0.87	23537	20.83	2.59	12.93

Table 2: Performance Results by Cycle of BBz081124 in Comparison to Benchmark Variety, B79474 & CP722086, on a Vertisol Location

***Note that R3 data was heavily impacted by drought conditions**

BBz00759

VARIETY INFORMATION SHEET

BBz00759

Description

The data was collected from the 2021/2022 Crop.
The variety is a Early-Late with peak maturity in February. BBz00759 is appropriate for Clay Soils.

General Performance Observed
High Quality
Erect Cane

Limiting Features

Site	Variety	Brix	Pol	Purity	TC/TS	Kg/Stalk	Stalks/Ha	TCH	TSH	Fiber
	BBz00759	21.31	18.85	88.47	7.61	0.86	95556	82.55	10.85	13.89
	B79474 (T1)	18.52	15.36	82.89	9.69	1.35	70555	95.25	9.83	13.16
	BBz00759 to T1	115%	123%	107%	78%	64%	135%	87%	110%	106%

Disease and Pest Information	
Smut	Resistant
Rust	Resistant
RSD	Resistant
Froghoppers	Tolerant
Stemborers	Tolerant

Agronomic Characteristic	
Canopy	Erect Leaves
Flowering	None
Lodging	Erect
Ratooning	Good
Trashing	Average

Last Sampling Date 10-Feb-22

ASR GROUP | BELIZE sugar

BBz00759
IDENTIFICATION GUIDE

Canopy
The leaves display an erect growing pattern making canopy closure slow.

Leaf Sheath
The leaf sheath is green with purple hues. The auricles are short, and have little to no hair. There is a moderate necrotic layer that widens to the bottom of the leaf sheath. On the leaf sheathe there is moderate pubescence seen and heavy waxing.

Dewlap
The Dewlap is olive green in color and darkened by the wax.

Bud Eye
The buds are round and average in size, and slightly bulged. They are yellow when young with medium sized, brown wings. When buds and growth rings are exposed to sunlight they attain purple hues and eventually darken. The growth ring around the internode is slightly thinner behind the bud.

Stalks Placed Together & Three Piece Sample
The stalks demonstrate a moderate zig-zag pattern, unexposed stalks are yellow with green hues and sun exposed stalks are dark green with yellow and purple hues. The stalks have above average wax coverage with strong adherence. Some internodes are somewhat concave and some are straight.

Belize Sugar Industries Limited
Agricultural Research
Tower Hill, Orange Walk

Release Statement of Sugarcane Variety BBz00759

The Belize Sugar Industries Limited (BSI) Agricultural Research department has selected and announces the release of new variety BBz00759.

BBz00759 is recommended for Inceptisols & Vertisols in Zone 1 & Zone 5. Highlight features include high cane quality & mechanical harvesting adaptability.

BBz00759 was evaluated via replicated trials located in the Tower Hill and Hill View farms. The experimental design utilized was a randomized complete block design with 4 replications. The trials were planted in late 2005 at the two locations mentioned previously and evaluated from 2005 – 2009. The trials were evaluated over the plant cane, first ratoon, second ratoon at Tower Hill & Hill View location. The reference variety in both locations was B52298, BBz8257 & CP721312.

A Pre-commercial variety study was conducted over the 2021-2022 crop with updated standards. The following is a summary of varietal performance.

The mean productivity (TCH) of BBz00759 was 87% than B79474. The average sugar per hectare (TSH) was 21% higher than B79474. The mean amount of cane to produce a ton of sugar (TC/TS) was 22% lower than B79474. The sucrose content was 23% higher than B79474. The average stalk weight was 26% lower B79474. The mean stalk population was 35% higher than B79474.

BBz00759 has not demonstrated susceptibility to rust or smut. Immonoassays also demonstrated resistance to RSD. It is tolerant to froghopper damage.

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BBz02403

VARIETY INFORMATION SHEET

BBz02403

Description

The data was collected from the 2021/2022 Crop.
The variety is a Mid-Maturing variety with peak maturity in January - February. BBz02403 is appropriate for Clay Soils.

General Performance Observed
Erect Cane
Self Trashing

Limiting Features

Site	Variety	Brix	Pol	Purity	TC/TS	Kg/Stalk	Stalks/Ha	TCH	TSH	Fiber
	BBz02403	20.90	18.31	87.65	7.86	1.27	85589	108.78	13.84	14.14
	B79474 (T1)	19.52	16.20	83.01	9.14	1.40	67535	94.72	10.36	13.68
	BBz02403 to T1	107%	113%	106%	86%	91%	127%	115%	134%	103%

Disease and Pest Information	
Smut	Resistant
Rust	Resistant
RSD	Resistant
Froghoppers	Tolerant
Stemborers	Resistant

Agronomic Characteristic	
Canopy	Average
Flowering	None
Lodging	Very Erect
Ratooning	Good
Trashing	Self-Trashing

Last Sampling Date 6-Apr-22

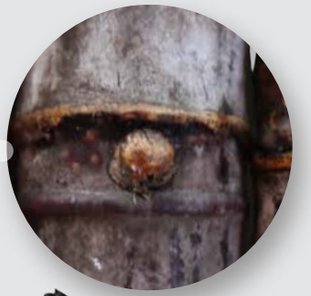
ASR GROUP | BELIZE sugar

BBz02403
IDENTIFICATION GUIDE

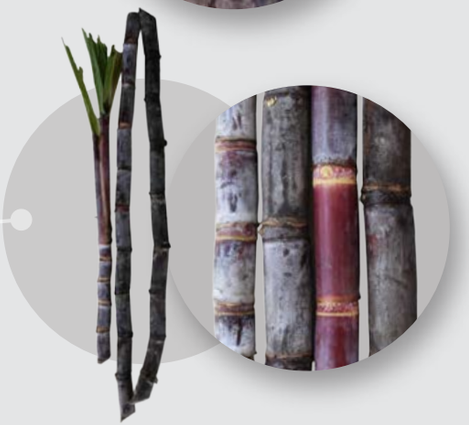
Canopy
The leaves display an erect growing pattern making canopy closure slow.

Leaf Sheath
The leaf sheath is green with purple hues. The auricles are short, and have little to no hair. There is a moderate necrotic layer that widens to the bottom of the leaf sheath. On the leaf sheathe there is moderate pubescence seen and heavy waxing.

Dewlap
The Dewlap is olive green in color and darkened by the wax.



Bud Eye
The buds are round and average in size, and slightly bulged. They are yellow when young with medium sized, brown wings. When buds and growth rings are exposed to sunlight they attain purple hues and eventually darken. The growth ring around the internode is slightly thinner behind the bud.



Stalks Placed Together & Three Piece Sample
The stalks demonstrate a moderate zig-zag pattern, unexposed stalks are yellow with green hues and sun exposed stalks are dark green with yellow and purple hues. The stalks have above average wax coverage with strong adherence. Some internodes are somewhat concave and some are straight.

Belize Sugar Industries Limited
Agricultural Research
Tower Hill, Orange Walk

Release Statement of Sugarcane Variety BBz02403

The Belize Sugar Industries Limited (BSI) Agricultural Research department has selected and announces the release of new variety BBz02403.

BBz02403 is recommended for Inceptisols & Vertisols. Highlight features include self-trashing & high cane quality.

BBz02403 was evaluated via replicated trials located in the Santa Cruz and Hill View farms. The experimental design utilized was a randomized complete block design with 4 replications. The trials were planted in late 2007 at the two locations mentioned previously and evaluated from 2007 – 2012. The trials were evaluated over the plant cane, first ratoon, second ratoon, third ratoon at Santa Cruz & Hill View location. The reference variety in both locations was B52298 & B79474.

A Pre-commercial variety study was conducted over the 2021-2022 crop with updated standards. The following is a summary of varietal performance.

The mean productivity (TCH) of BBz02403 was 15% than B79474. The average sugar per hectare (TSH) was 34% higher than B79474. The mean amount of cane to produce a ton of sugar (TC/TS) was 14% lower than B79474. The sucrose content was 13% higher than B79474. The average stalk weight was 9% lower B79474. The mean stalk population was 27% higher than B79474.

BBz02403 has not demonstrated susceptibility to rust or smut. Immonoassays also demonstrated resistance to RSD. It is tolerant to froghopper damage and stemborer damage.

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Farmer Varietial Plot

BBz02552

VARIETY INFORMATION SHEET

BBz02552

Description

The data was collected from the 2021/2022 Crop
The variety is a Mid-Maturing variety with peak maturity in March - April. BBz02552 is appropriate for Clay & Sandy Soils

General Performance Observed
Fast Germination
Rapid Canopy Closure

Limiting Features
Sprawly Stools

Site	Variety	Brix	Pol	Purity	TC/TS	Kg/Stalk	Stalks/Ha	TCH	TSH	Fiber
	BBz02552	16.72	13.08	78.12	11.83	1.40	80381	112.86	9.54	10.11
	B79474 (T1)	16.59	12.99	78.27	11.82	1.33	78124	103.91	8.79	13.22
	BBz02552 to T1	101%	101%	100%	100%	106%	103%	109%	109%	76%

Disease and Pest Information	
Smut	Resistant
Rust	Moderately Susceptible
RSD	Resistant
Froghoppers	Tolerant
Stemborers	Resistant

Agronomic Characteristic	
Canopy	Closes Early
Flowering	None
Lodging	Partial
Ratooning	Good
Trashing	Holds Leaves

Last Sampling Date 14-Jan-22

ASR GROUP | BELIZE sugar

BBz02552
IDENTIFICATION GUIDE

Canopy
The leaves bend around the midway point making canopy closure rapid.

Leaf Sheath
The Leaf sheath is green with yellow hues. It contains long auricles yellow and with hair. Moderate pubescence is seen throughout the leaf sheaths. There is a wide necrotic layer leading to the bottom of the sheath.

Dewlap
The dewlap has very little wax coverage and is olive green in coloration.

Bud Eye
The buds are relatively average and flat with moderate wing size. They are also generally yellow, however when exposed to enough sunlight develop purple hues. The growth ring is uniform around the internode and generally yellow, however it develops green hues with sun exposure.

Stalks Placed Together & Three Piece Sample
The stalks are yellow in color but tend to turn green with exposure to sunlight. The growth pattern is slightly zig-zagged. There are some growth cracks. The waxiness is moderate and it comes off somewhat easily. This wax also tends to turn black with age.

Belize Sugar Industries Limited
Agricultural Research
Tower Hill, Orange Walk

Release Statement of Sugarcane Variety BBz02552

The Belize Sugar Industries Limited (BSI) Agricultural Research department has selected and announces the release of new variety BBz02552.

BBz02552 is recommended for Inceptisols, Vertisols & Alfisols in Zone 5. Highlight features include high productivity & rapid canopy closure.

BBz02552 was evaluated via replicated trials located in the Santa Cruz and Hill View farms. The experimental design utilized was a randomized complete block design with 4 replications. The trials were planted in late 2007 at the two locations mentioned previously and evaluated from 2007 – 2012. The trials were evaluated over the plant cane, first ratoon, second ratoon, third ratoon at Santa Cruz & Hill View location. The reference variety in both locations was B52298 & B79474.

A Pre-commercial variety study was conducted over the 2021-2022 crop with updated standards. The following is a summary of varietal performance.

The mean productivity (TCH) of BBz02552 was 9% than B79474. The average sugar per hectare (TSH) was 9% higher than B79474. The mean amount of cane to produce a ton of sugar (TC/TS) was the same as B79474. The sucrose content was 1% higher than B79474. The average stalk weight was 6% lower B79474. The mean stalk population was 3% higher than B79474.

BBz02552 has not demonstrated susceptibility to rust or smut. Immonoassays also demonstrated resistance to RSD. It is tolerant to froghopper damage.

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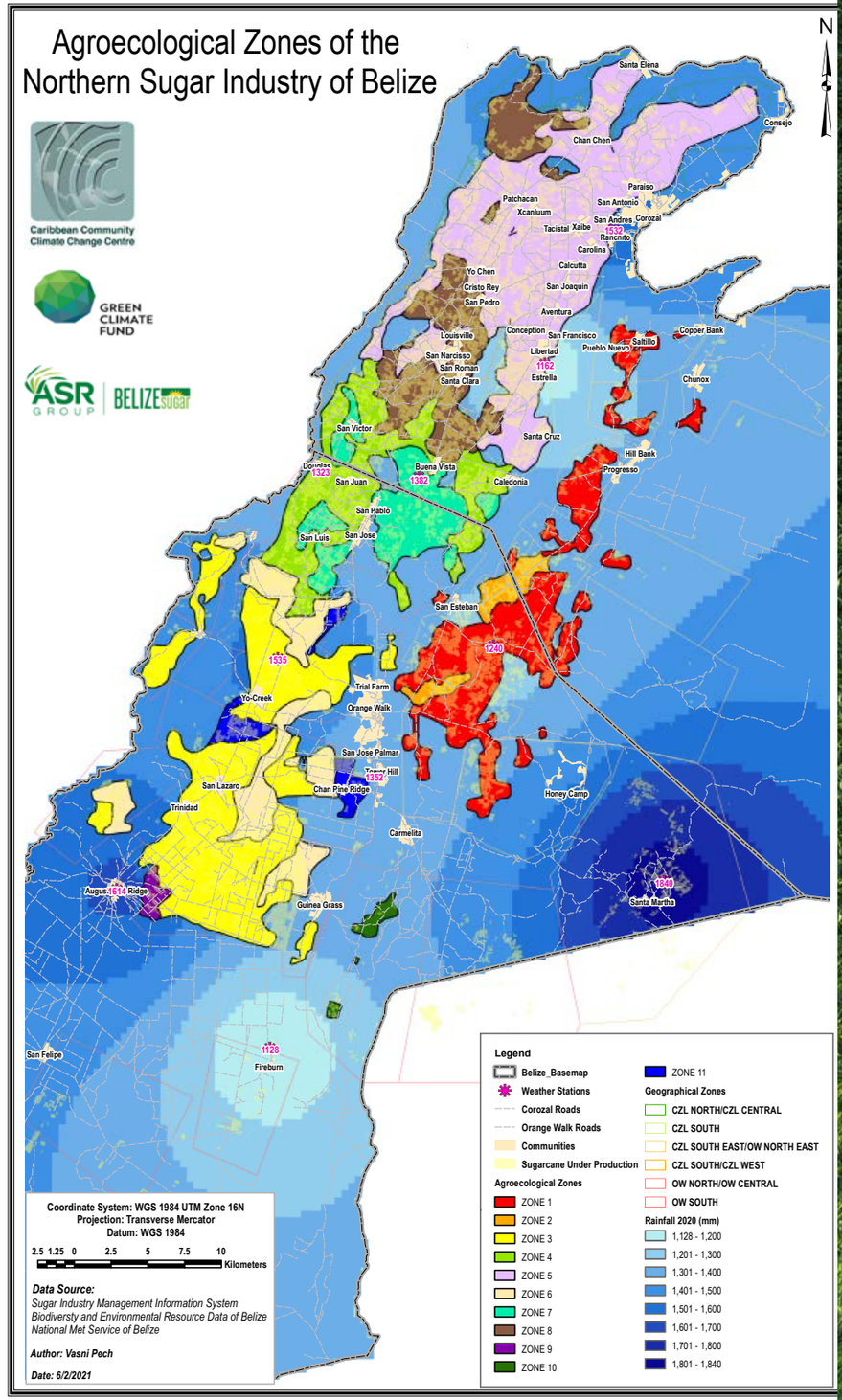

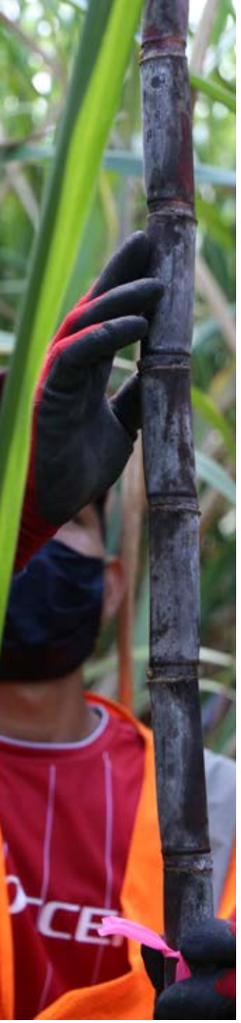

SUGAR CANE VARIETIES PROGRAM

Barbados Belize (BBz)

Notes

Personal Information

Name:

Date of Birth:

Address:

Telephone:

Email:

Office Number:

In Case of an Emergency

Name 1:

Telephone:

Name 2:

Telephone:

Other Information

GREEN CLIMATE FUND

Caribbean Community Climate Change Centre

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