SUGAR INDUSTRY AUTHORITY - JAMAICA

POST CROP BOOKLET 2019

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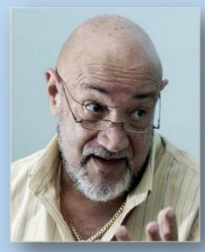

Mr. Allan Rickards

Ms. Stephanie Muir

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Variety Recommendations for Harvesting Periods and Soil Types

Table 1a: Varieties recommended for Hanover & Westmoreland

Area	Harvest Periods	Soil Types		
		Light Soil	Clay Loam	Clay
Westmoreland and Hanover	Early	BJ7465	BJ7465	BJ7465
		BJ7015	BJ7015	BJ7015
		CR892023	CR892023	CR892023
		BJ7314	BJ7314	BJ8783
		BJ8783	BJ8783	BJ82105
		BJ82105	BJ82105	BJ7938
		BJ7938	BJ7938	BJ7452
		BJ7452	BJ7452	
		BJ78100	BJ78100	
	Middle	BJ7504	BJ7504	BJ7504
		BJ7015	BJ7015	BJ7015
		BJ7938	BJ7938	BJ7938
		BJ82119	BJ82119	BJ82119
		BJ7452	BJ7452	BJ7452
		BJ7465	BJ7465	BJ7465
		BJ82105	BJ82105	BJ82105
		BJ8783	BJ8783	BJ8783
		BJ78100	BJ78100	BJ78100
	Late	BJ7627	BJ7627	BJ7627
		BJ82119	BJ82119	BJ82119
		BJ8783	BJ8783	BJ8783
		BJ78100	BJ78100	BJ78100

Variety Recommendations for Harvesting Periods and Soil Types cont.

Table 1b: Varieties recommended for Irrigated Clarendon and St. Catherine Plains

		Soil Types		
Area	Harvest Periods	Light Soil	Clay Loam	Clay
Irrigated Clarendon and St. Catherine Plains	Early	BJ7465	BJ7465	BJ7465
		BJ7015	BJ7015	BJ7015
		BJ7938	BJ7938	BJ7938
		BJ82119	BJ82119	BJ82119
		BJ82102	BJ82102	BJ82102
		BJ82105	BJ82105	BJ82105
		BT80311	BT80311	BT80311
		CR892023	CR892023	CR892023
		BJ8783	BJ8783	BJ8783
	Middle	BJ82119	BJ82119	BJ82119
		BJ7548	BJ7548	BJ7548
		BJ82102	BJ82102	BJ82102
		BJ78100	BJ78100	BJ8783
		BJ8783	BJ8783	BJ7504
			BJ7504	
	Late	BJ7627	BJ7627	BJ7627
		BJ8783	BJ8783	BJ8783
		BJ78100	BJ78100	

Variety Recommendations for Harvesting Periods and Soil Types cont.

Table 1c: Varieties recommended for Upper St. Catherine and Upper Clarendon

Area	Harvest Periods	Soil Types		
		Light Soil	Clay Loam	Clay
Upper St. Catherine and Upper Clarendon	Early	BJ7015	BJ7015	BJ7015
		BJ7465	BJ7504	BJ7504
		BJ7314	BJ7314	BJ7314
		BJ7465	BJ7465	BJ7465
		BJ7627	BJ7627	BJ7627
		CR892023	CR892023	CR892023
		BT80311	BT80311	BT80311
	Middle	BJ7465	BJ7465	BJ7465
		BJ82119	BJ82119	BJ82119
		BJ7262	BJ7262	BT80311
		BT80311	BT80311	
	Late	BJ7627	BJ7627	BJ7627
		BJ8783	BJ8783	BJ8783
		BJ7015	BJ7015	BJ7015

Variety Recommendations for Harvesting Periods and Soil Types cont.

Table 1d: Varieties recommended for St. Thomas

		Soil Types		
Area	Harvest Periods	Light Soil	Clay Loam	Clay
St. Thomas	Early	BJ7465	BJ7465	BJ7465
		BJ7938	BJ7938	BJ7938
		CR892023	BJ7452	BJ7452
		BJ8783	BJ7627	BJ7627
		BT80311	BJ7314	BJ7314
			BJ82105	BJ82105
			CR892023	CR892023
			BJ8783	BJ8783
			BT80311	BT80311
	Middle	BJ7938	BJ7627	BJ7627
		BJ82105	BJ7938	BJ7938
		BJ82119	BJ82105	BJ82105
		BJ8783	BJ82119	BJ82119
		BJ7504	BJ8783	BJ8783
		BT80311	BJ7504	BJ7504
		BJ78100	BT80311	BT80311
			BJ78100	
	Late	BJ7627	BJ7627	BJ7627
		BJ8783	BJ8783	BJ8783
		BJ7938	BJ7938	BJ7938
		BJ78100	BJ78100	

Variety Recommendations for Harvesting Periods and Soil Types cont.

Table 1e: Varieties recommended for St. Elizabeth

Area	Harvest Periods	Soil Types		
		Light Soil	Clay Loam	Clay
St. Elizabeth	Early	BJ7314	BJ7314	BJ7314
		BJ7015	BJ7015	BJ7015
		BJ7938	BJ7465	BJ7465
		BJ78100	BJ7938	BJ7938
		CR892023	BJ78100	CR892023
		BJ82105	CR892023	
			BJ82105	
	Middle	BJ7262	BJ7465	BJ7465
		BJ7465	BJ82105	BJ82105
		BJ82105	BJ7504	BJ7504
		BJ7938	BJ7938	BJ7938
		BJ7627	BJ7627	BJ7627
		BJ82105	BJ82105	
		BJ78100	BJ78100	
	Late	BJ7465	BJ7465	BJ7465
		BJ7627	BJ7627	BJ7627
		BJ7314	BJ7314	BJ7314
		BJ82105	BJ82105	
		BJ78100	BJ78100	

Variety Recommendations for Harvesting Periods and Soil Types cont.

Table 1f: Varieties recommended for Trelawny, St. James and St. Ann

Area	Harvest Periods	Soil Types		
		Light Soil	Clay Loam	Clay
Trelawny, St. James and St. Ann	Early	BJ7465	BJ7465	BJ7465
		BJ82119	BJ82119	BJ82119
		CR892023	BJ7504	BJ7504
		BJ78100	CR892023	CR892023
		BJ7938	BJ78100	BJ7938
		BJ7015	BJ7938	BJ7015
		BJ7548	BJ7015	BJ7548
		BJ8783	BJ7548	BJ8783
			BJ8783	
	Middle	BJ82119	BJ82119	BJ82119
		BJ7548	BJ7504	BJ7504
		BJ7627	BJ7465	BJ7465
		BJ78100	BJ7548	BJ7548
		BJ7938	BJ7627	BJ7627
		BJ8783	BJ78100	BJ7938
			BJ7938	BJ8783
			BJ8783	
	Late	BJ7627	BJ7627	BJ7627
		BJ8783	BJ8783	BJ8783
		BJ78100	BJ78100	BJ82119
		BJ82119	BJ82119	BJ7015

Seedlings being prepared for the first phase of experiments

Over 43,000 seedlings (potential varieties) were planted in the fields for evaluations

Seedlings planted out in the field.

Cane Production and Harvesting Data

Table 2: Area Reaped as a Percentage of Area in Cane by Factory Area: 2017-2019

2019

Factory Area	Area in Cane (ha)	Area reaped (ha)	Percent area reaped (%)
Appleton	3,995	3,383	85
Everglades	-	253	-
Frome	6,685	4,536	68
Golden Grove	2,533	2,061	81
Monymusk	4,815	2,263	47
Worthy Park	3,650	3,264	89
Grand Total/Average	**21,678**	**15,760**	**73**

** Provisional report*

2018*

Factory Area	Area in Cane	Area reaped	Percent area reaped
	(ha)	(ha)	%
Appleton	3,995	3,637	91
Everglades	2,876	1,290	45
Frome	6,685	5,228	78
Golden Grove	2,533	2,222	88
Monymusk	4,815	3,582	74
Worthy Park	3,650	3,275	90
Grand Total/Average	**24,554**	**19,234**	**78**

** Provisional report*

2017

Factory Area	Area in Cane	Area reaped	Percent area reaped
	(ha)	(ha)	%
Appleton	4,030	3,754	93
Everglades	-	1,028	N/A
Frome	10,400	4,774	46
Golden Grove	2,940	2,060	70
Monymusk	7,763	4,245	55
Worthy Park	4,354	3,642	84
Grand Total/Average	**29,487**	**19,503**	**66**

Table 3: Summary Cane Production & Productivity Report: 2017 – 2019

Year	Area reaped (ha)	Canes reaped (tonne)	96° Sugar (tonne)	tc/ha	ts/ha
2016	21,138	1,127,057	82,855	53.32	3.92
2017	19,503	1,142,429	87,990	58.58	4.51
2018*	19,234	1,004,985	82,360	52.25	4.28
2019	15,760	736,788	59,112	46.80	3.76

** Provisional Report*

A total of 1,947 farmers delivered canes during 2018/19 compared to 2,432 in 2017/18

Table 4: Tonnes Cane Per Hectare (tc/ha) for Farmers and Estates: 2018 vs 2019

Extension Area	Farmers		Estate	
	2017/18	2018/19	2017/18	2018/19
Appleton	44	36	56	46
Trelawny & St. James	23	0	15	40
Frome	51	45	73	58
Golden Grove	68	58	56	54
Monymusk	42	32	53	28
Worthy Park	52	42	78	70
TOTAL	**47**	**42**	**65**	**52**

Source: All Island Jamaica Cane Farmers Association, 2019. Preliminary data.

Table 5: Cane Productivity for Farmers and Estates: 2018/19 Crop

Cane Productivity 2018/19 Crop						
Extension Area	Farmers			Estates		
	Production	Ha Reaped	tc/ha	Production	Ha Reaped	tc/ha
Appleton	35,799	995	36	87,959	2,388	46
Trelawny & St. James	5,056	253	20	0	0	0
Frome	80,524	1,775	45	159,845	2,761	58
Golden Grove	72,809	1,260	58	43,446	801	54
Monymusk	49,703	1,603	32	19,148	660	29
Worthy Park	61,650	1,468	42	125,741	1,796	70
Total/Av.	**305,541**	**7,354**	**42**	**436,139**	**8,384**	**52**

Table 6: Total Tonnes Stand-over Cane: 2018/19

Area	Tonnes Cane (tc)		
	Estate	Farmers	Total
Appleton	1,619	3,486	**5,105**
B/Lodge & Bog Walk	1,800	1,500	**3,300**
Trelawny & St. James	1,000	4,000	**5,000**
Frome	6,000	2,000	**8,000**
Golden Grove	0	0	**0**
Monymusk	350	7,650	**8,000**
New Yarmouth	0	0	**0**
Worthy Park	0	15,000	**15,000**
Total	**10,769**	**33,636**	**44,405**

Source: All Island Jamaica Cane Farmers Association

Table 7: Total Stand-over Cane for Estates and Farmers: 2018 vs 2019

Extension Area	2018	2019	Variance (Tonnes)	% Change
Appleton	2,000	5,105	**-3,105**	**-155**
Bernard Lodge and Bog Walk	5,900	3,300	**2,600**	**44**
Trelawny and St. James	6,000	5,000	**1,000**	**17**
Frome	25,876	8,000	**17,876**	**69**
Golden Grove	8,520	0	**0**	**0**
Monymusk	8,000	8,000	**0**	**0**
New Yarmouth	0	0	**0**	**0**
Worthy Park	10,000	15,000	**-5,000**	**-50**
Total	**66,296**	**44,405**	**21,891**	**33**

Table 8: Total Area Affected by Illicit Fires: 2018/19 Crop

Extension Area	Estates			Farmers		
	No. of Fires	Hectares	Tonnes	No. of Fires	Hectares	Tonnes
Appleton	1	12	600	3	19	630
Bernard Lodge & Bog Walk	4	100	2,000	5	400	5,800
Frome	135	3,988	34,306	33	133	6,555
Golden Grove	50	120	6,200	3	30	1,200
Monymusk	4	220	7,100	2	120	4,200
Trelawny and St. James	2	103	950	2	8	125
Worthy Park	0	0	0	5	7	190
TOTAL	**196**	**4,543**	**51,156**	**53**	**717**	**18,600**

Source: All Island Jamaica Cane Farmers Association

Table 9: Total Tonnes Cane Lost to Illicit Fires: 2018 vs 2019

Extension Area	2018			2019		
	Estate	Farmers	Total	Estate	Farmers	Total
Appleton	1,065	4,955	**6,020**	600	630	**1,230**
B/Lodge & Bog Walk	620	3,920	**4,540**	2,000	5,800	**7,800**
Trelawny & St. James	1,700	327	**2,027**	950	125	**1,075**
Frome	43,888	36,775	**80,663**	34,306	6,555	**40,861**
Golden Grove	0	0	**0**	6,200	1,200	**6,500**
Monymusk	9,420	4,710	**14,130**	7,100	4,200	**11,300**
Worthy Park	0	495	**495**	0	190	**190**
TOTAL	**56,693**	**51,182**	**107,875**	**51,156**	**18,600**	**69,756**

Table 10: Tonnes Stand-over Cane: 2018/19 Crop

Area	Tonnes Cane (tc)		
	Estate	Farmers	Total
Appleton	1,619	3,486	**5,105**
B/Lodge & Bog Walk	1,800	1,500	**3,300**
Trelawny & St. James	1,000	4,000	**5,000**
Frome	6,000	2,000	**8,000**
Golden Grove	0	0	**0**
Monymusk	350	7,650	**8,000**
New Yarmouth	0	0	**0**
Worthy Park	0	15,000	**15,000**
Total	**10,769**	**33,636**	**44,405**

Source: All Island Jamaica Cane Farmers Association

Table 11: Hectares Planted by Farmers and Estates

Area	Farmers			Estates			Grand Total
	N/Planting	Replanting	Total	N/Planting	Replanting	Total	
Appleton	4	27	**31**	0	132	**132**	**163**
B/L & Bog Walk	0	0	**0**	0	40	**40**	**40**
Tr. & St. James	0	0	**0**	0	40	**40**	**40**
Frome	0	21	**21**	0	62	**83**	**104**
Golden Grove	0	0	**0**	0	0	**0**	**0**
Monymusk	0	0	**0**	140	20	**160**	**160**
Worthy Park	0	23	**23**	0	39	**39**	**62**
Total	**4**	**71**	**75**	**140**	**333**	**473**	**548**

All planting done up to August 2019.

Table 12: Total Hectares Planted by Farmers and Estates: 2018 vs 2019

Extension Area	2018			2019		
	Estate	Farmers	Total	Estate	Farmers	Total
Appleton	56	55	**111**	132	31	**163**
B/L & Bog Walk	40	0	**40**	40	0	**40**
Tr. & St. James	0	2	**2**	40	0	**40**
Frome	443	74	**517**	62	21	**83**
Golden Grove	27	35	**62**	0	0	**0**
Monymusk	100	4	**104**	160	0	**160**
Worthy Park	132	56	**159**	39	23	**62**
TOTAL	**797**	**198**	**995**	**473**	**75**	**548**

Source: All Island Jamaica Cane Farmers Association

Table 13: Rainfall Data (mm)

Table 8: Rainfall Totals for Cane-growing Areas			
Factory Area	**2018**	**2019 (Up to August)**	**2020**
Appleton	1,738	1046	
Bernard Lodge	754	551	
Trelawny	700	-	
Frome	2,593	1,426	
Golden Grove	1,315	-	
M/musk (N/Yarmouth)	924	517	
Worthy Park	1,424	497	

Factory Performance Statistics

Table 14. Industry Cane and Sugar Production for the years 2017 - 2019

Crop Year	Cane Ground for Sugar (t)	96° Sugar Made (t)	tc/ts
2017	1,133,353	87,990	12.88
2018	1,021,468	82,360	12.44
2019	736,788	59,112	12.46
3-Year Average	**963,870**	**76,487**	**12.96**

Fig. 15: Jamaica's Sugar Production 2017 – 2019

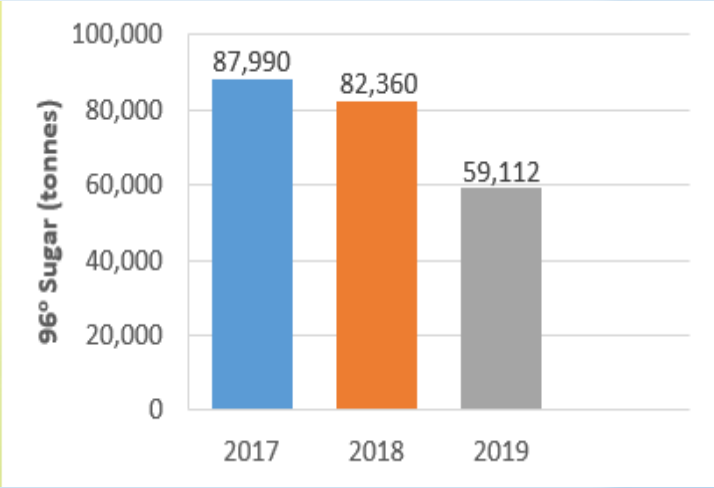


Table 16: Cane Ground and Sugar Production by Factories: 2017 - 2019

Factory	2018/19	
	Cane Ground for Sugar (t)	96° Sugar Made (t)
Appleton	164,896	10,925
Frome	240,813	17,288
G/Grove	116,345	7,310
W/Park	214,734	23,589
Total/Avg	**736,788**	**59,112**

Factory	2017/18	
	Cane Ground for Sugar (t)	96° Sugar Made (t)
Appleton	214,350	16,480
Frome	327,098	23,275
G/Grove	139,731	10,248
M/musk	104,192	8,105
W/Park	238,814	24,251
Total/Avg	**1,024,185**	**82,360**

Factory	2016/17	
	Cane Ground for Sugar (t)	96° Sugar Made (t)
Appleton	297,603	18,936
Frome	247,078	20,451
G/Grove	151,060	11,297
M/musk	176,029	11,230
W/Park	261,582	26,076
Total/Avg	**1,133,352**	**87,990**

- *The Everglades Factory (Long Pond) did not operate for the 2017-2019 crops.*
- *The Monymusk Factory did not operate for the 2018/19 Crop.*

Table 17. Factory Recovery Index (FRI) by Factories (2017 - 2019)

Factory	FRI		
	2018/19	2017/18	2016/17
Appleton	63.14	80.24	72.31
Frome	77.54	81.86	77.92
G/Grove	65.97	81.62	84.74
M/musk	-	73.14	66.79
W/Park	93.67	95.51	94.35
Averages	**77.96**	**83.49**	**79.22**
Standard FRI	**91.00**	**91.00**	**91.00**

Table 18: Jamaica Recoverable Cane Sugar (JRCS) by Factories (2017 - 2019)

Factory	JRCS		
	2018/19	2017/18	2016/17
Appleton	10.16	9.62	8.84
Frome	9.30	8.76	10.02
G/Grove	9.60	9.17	8.94
M/musk	0.00	10.61	9.59
W/Park	11.74	10.63	10.57
Averages	**10.25**	**9.62**	**9.61**
Standard JRCS	**9.87**	**9.87**	**10.01**

Table 19: Tonnes Cane Per Tonne Sugar (tc/ts) by Factories (2017 - 2019)

Factory	Conversion (tc/ts)		
	2018/19	2017/18	2016/17
Appleton	15.09	13.01	15.72
Frome	13.94	14.05	12.08
G/Grove	15.92	13.63	13.37
M/musk	0.00	12.86	15.67
W/Park	9.10	9.85	10.03
Averages	**12.46**	**12.44**	**12.88**

Table 20: Grinding Rates of Sugar Factories - Tonnes Cane Per Hour (2017 - 2019)

Factory	Rated Capacity (tc/hr)	Grinding Rate (tc/hr)		
		2018/19	2017/18	2016/17
Appleton	150	115.92	121.57	118.55
Everglades	75	-	-	-
Frome	200	141.21	157.10	174.04
G/Grove	75	75.17	72.93	76.56
M/musk	200	0	122.91	118.39
W/Park	70	69.18	70.60	70.26
Averages	**128**	**100.37**	**105.89**	**109.81**

Table 21: Price Per Tonne Cane (J$) by Factories (2017 - 2019)

Factory	Price/Tonne Cane (J$)		
	2018/19*	2017/18	2016/17
Appleton***	4479.81	2,243.62	4,291.03
Frome **	4187.03	3,038.80	4,761.67
G/Grove*	4342.08	3,930.60	3,752.09
M/musk***	0	2,619.25	4,101.95
W/Park ***	5313.04	2,629.25	4,588.24
Averages	**J$ 4,604.30**		**J$ 4,291.03**

Table 22: Price Per Tonne Sugar (J$) by Factories (2017 - 2019)

Factory	Price/Tonne Sugar (J$)		
	2018/19*	2017/18	2016/17
Appleton***	59,000.00	42,000.00	72,457.38
Frome **	59,000.00	56,550.00	72,000.00
G/Grove*	59,000.00	72,000.00	72,000.00
M/musk***		42,000.00	71,373.00
W/Park ***	60,000.00	42,000.00	71,646.00
Base Price/Tonne	**J$ 59,250.00**	**J$ 50,910.00**	**J$ 71,895.28**

* Final Payment 2019
** Second Payment 2019
*** First Payment 2019

Table 23: Cane Ground and Crop Duration by Factory Area: 2018/19

Factory Area	Cane Production		Crop Duration			No. of Farmers Supplying Cane
	Farmers	Estates	Start Date	Finish Date	Crop Days	
Appleton	63,215	101,681	15.2.19	2.6.19	107	**449**
Frome	80,968	159,845	3.1.19	8.5.19	126	**545**
Golden Grove	71,807	44,539	19.2.19	10.7.19	142	**180**
Worthy Park	88,993	125,741	4.1.19	24.6.19	172	**773**
Total	**304,983**	**431,806**			**189**	**1,947**

Table 24: Variance in Cane Ground for Farmers and Estates: 2018 vs. 2019

Factory Area	Farmers' Delivery				Estates' Delivery			
	2017/18 Crop	2018/19 Crop	% Change	% of Crop 2018/19	2017/18 Crop	2018/19 Crop	% Change	% of Crop 2018/19
Appleton	62,120	63,215	2	18	152,231	101,681	-33	24
Frome	121,682	80,968	-33	26	205,416	159,845	-22	37
Golden Grove	85,330	71,807	-16	23	54,401	44,539	-18	10
Worthy Park	153,682	88,993	-42	29	85,159	125,741	48	29
Total	**527,006**	**304,983**	**-42**	**100**	**497,207**	**431,806**	**-13**	**100**

Pest and Disease Management

Bio-Control of the Sugarcane Moth Borer

Damage caused by larvae of the sugarcane moth borer, *Diatraea saccharalis*, the key insect pest of sugarcane in Jamaica, continues to be an important source of yield loss incurred by Jamaican sugarcane farmers. The larva of the sugarcane borer is the destructive stage of the moth. All varieties of sugarcane currently grown in Jamaica are susceptible, but sugarcane varieties respond differently to damage and yield losses.

Management of *Diatraea spp*. in many sugarcane regions has largely focused on biological control. In 1970, *Cotesia flavipes*, a wasp, was imported, reared and released. It was not until 1983 that establishment of this bio-control agent was achieved. *Cotesia* rapidly became the dominant parasitic species of the borer with 59% parasitism.

In 2018, the Entomology lab at SIA-RD produced over 30,000 wasps locally and imported 350 thousand. These wasps were released across all cane growing ecosystem around the island with majority of the releases focused on the hotspot areas in Clarendon and St Catherine. Production of *Cotesia* continues with the aim of using this bio-control method to reduce negative effects of the stalk borer across the Industry.

In 2019, *Cotesia* (wasp) production was increased to over 50,000. The idea is to provide a robust and scalable Industry support mechanism in a pro-active manner.

BIOSECURITY ALERT

The sugarcane stalk borer poses a real threat to sugarcane in Jamaica. Cane growers in Clarendon and St. Catherine you are at a higher risk!

Help us to identify damage and different life stages of the pest as illustrated below:

Borer entry and exist holes

Borer tunneling

Dead heart symptom

Adult

Eggs

Pupae

Larva

If you find damage or larvae, please inform your local Extension Officer or an Entomologist at the SIA-RD

Extreme borer damage

We thank you for helping to keep track of this pest!

Sugar Industry Authority – Research Division, Kendal Road , Mandeville, Tel: (876) 962-2241, Fax: (876) 962-1288, Email: sirijam@cwjamaica.com

Major Diseases of Economic Importance to the Sugarcane Industry

Orange Rust

Towards the end of the year, orange rust leaf severity at Worthy Park was 6%, as opposed to the onset of the disease which, in June 2019, showed a leaf severity of 24%. The severity of the disease is determined by:

- **Weather conditions -** germination of **the** orange rust spore requires temperature between 11°C – 23°C and a relative humidity >97%.

- **Zone of field canopy affected –** Greatest yield effects occur when younger green leaves (upper four) in the shoot show obvious disease.

- **Varietal resistance –** has very significant effect on the potential to resist the fungus.

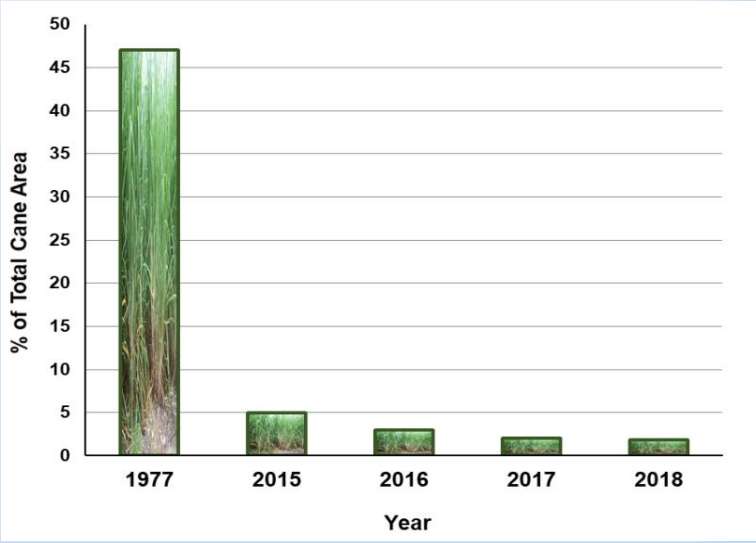
Major Diseases of Economic Importance to the Sugarcane Industry

Sugarcane Smut

- The impact of Smut disease within the sugarcane industry has been reduced to 2% of sugarcane area island-wide. The reduction of the impact is due mainly to replacing susceptible varieties with newer, tolerant, varieties and proper disease management on farms.

- Known susceptible varieties such as BJ9186, BJ7230 and BJ82156 have been replaced across the Industry.

Fig. 6: Sugarcane area affected (%) by Smut Disease Year 1977 vs. years 2015 -2018



Industry Services

Testing at SIA-RD's Central Laboratory

The SIA Central Laboratory continued to serve the needs of the Industry by conducting tests across several areas.

❑Sugar methods:

Polarisation, moisture, reducing sugars, sugar colour (affined and whole raw), dextran, ash, insoluble solids, grain size, and starch.

❑Wastewater methods (Ministry of Health approved):

pH, total suspended solids (TSS), alkalinity, total dissolved solids (TDS), nitrates (NO_3), phosphates (PO_4), and total nitrogen.

❑Soil analyses:

pH, nitrogen (N),
Phosphorous (P),
Potassium (K),
Sodium (Na),
Calcium (Ca), Boron (B), organic matter, cation exchange capacity (CEC), texture, electrical conductivity (EC), and salinity.

Testing at SIA-RD's Central Laboratory

- **Irrigation water:** pH, electrical conductivity (EC), total dissolved solids (TDS), alkalinity, nitrates (NO_3), phosphates (PO_3), sulphates (SO_4), sodium (Na), Potassium (K), Boron (B), Chloride (Cl), Carbonate (CO_3), Bicarbonate (HCO_3), Calcium (Ca), and Magnesium (Mg).

- **Molasses analysis:** polarisation (pol), brix, ash

- **Leaf analysis:** nitrogen (N), phosphorous (P), potassium (K), and boron (B).

Molasses: Pol analysis..

Sugar: Grain-size analysis.

Other Information

Sugar Organisations in Jamaica

- **All Island Jamaica Cane Farmers' Association (AIJCFA)** is the body incorporated by the cane farmers to promote, foster, and encourage the growing of canes.
- **Cane Expansion Fund (CEF)** is the body charged with managing the revolving loan fund for cane growing and expansion.
- **Gruppo Campari** is the owner of the Appleton Sugar Factory which is a private large-scale producer of cane and a manufacturer of sugar.
- **Jamaica Association of Sugar Technologists (JAST)** is an umbrella organization for Jamaica's sugar industry professionals.
- **Pan Caribbean (PCSC)** is the operator of the Frome and Monymusk Sugar factories; the entity also markets the sugar produced.
- **Seprod Ltd** is a manufacturing conglomerate and the owner of Golden Grove Sugar Factory. Seprod is a marketing agent for the sugar produced by Golden Grove.
- **Sugar Industry Authority (SIA)** is a Statutory Authority under the Ministry of Industry Commerce Agriculture & Fisheries, with powers to implement the provisions of the Sugar Industry Contact Act through regulations and research.
- **Sugar Manufacturers Corporation of Jamaica (SMCJ)** is the umbrella organization of sugar factories.
- **Sugar Producers' Federation (SPF)** deals with the industrial relations and staff welfare matters of the sugar manufacturers.
- **Worthy Park Estate Ltd.** is a private, medium-scale producer of cane and a manufacturer and marketing agent of sugar.

Notes

SUGAR INDUSTRY AUTHORITY

For further information and queries, direct concerns to:

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