

# Ministry of Agriculture, Food Security and Enterprise

# 2019 YEARLY AGRICULTURE PRODUCTION REPORT

The following report reviews the commodities which have been produced and harvested from January 2019 to December 2019.

The report is a compilation of data collected from Industry, Associations, micro, small, medium and large farms represented by Extension and the Policy and Statistics Unit. All monetary values quoted in the report are in Belize dollars.

Primary Agric	Primary Agriculture Output Value at Producer's Price			
Economic Val	ue of Agriculture Out	put 2018 and 2019		
Sector	Value (BZ\$) 2018	Value (BZ\$) 2019	% Chg	
Sugarcane (tons)	\$77,641,707.39	\$76,156,531.05	-2%	
Banana	\$85,752,456.00	\$84,362,411.00	-2%	
Citrus	\$36,647,091.59	\$34,755,378.55	-5%	
Marine Products	\$44,073,879.60	\$50,722,430.22	15%	
Fruits	\$22,100,135.14	\$19,884,721.20	-10%	
Grains/Legumes	\$88,220,319.92	\$78,915,585.14	-11%	
Vegetables & Roots and Tubers	\$22,810,860.45	\$19,884,721.20	-13%	
Livestock	\$152,141,788.66	\$155,694,720.61	2%	
OUTPUT	\$529,388,238.75	\$520,376,498.97	-2%	

Table 1. Data showing primary agriculture output value for the year 2018 and 2019

The Agriculture sector contributed an estimated \$520 million to the agriculture output of Belize in the year 2019 as shown in *Table 1*. As compared to the year 2018, the economic output decreased by 2% in all sectors except that of livestock and marine products

The Livestock sector exhibits the highest economic output value, contributing \$155 million to the economy of Belize. The sector experienced a 2% increase when compared to 2018. Within the livestock sector, the poultry sub- sector is the largest revenue generator yielding an estimated \$119.6 million in economic output. The Poultry sectors output also increased by 4% in comparison to the year 2018.

The Banana sector, one of Belize's traditional crop, is the second largest economic output value, contributing \$84.3 million to the economy of Belize. The sector however exhibited a 2% decrease when compared to 2018. While the prices and exports of banana increased overall by 4%, the major decrease of 33% of domestic apple banana production affected the economic output. Hence the 2% decrease in overall economic output.

The Grains sector is ranked as the third highest economic output value in 2019, which contributed \$78.9 million to the economy. This same sector however when compared to last year experienced a significant value decrease of 11%. This was a result of over 30% decrease in the production of soybeans, black beans and peanuts within the sector. There was also a significant decrease of 7% in the overall price per lbs of these commodities when compared to 2018.

Additionally, sugarcane is ranked as the fourth highest income earner for the country amounting to \$76 million in economic output in 2019. This sector also experienced a value decrease of 2% as compared to last year. The overall production of sugarcane saw a 5% increase in 2019 and the price of sugarcane saw a steady decrease of 7% which contributed to the overall decrease of 2% in economic value.

The Marine products sector ranked the fifth largest economic earner for Belize in 2019; accounting an output value of \$50.7 million which saw the largest increase of 15% when compared to 2018. Conch (19%) and Whole Fish (186%) saw a significant increase in production. Lobster (-1%) and Shrimp (-14%) saw a decrease in production but also saw a steady price increase in 2019 which contributed to the overall increase in economic output value. The overall increase in price per pound of marine products contributed to the significant increase in economic output value.

The Citrus sector, another of the traditional crops, saw a 5% decrease with a total of \$34.7 million in economic value to the economy when compared to 2018. This decrease can be attributed to lower production since the price per 90 lbs/box remained relatively stable when compared to 2018. The performance of the citrus industry continued to decrease and this overall downturn in economic output value can be linked directly to total production.

# **TRADITIONALS**

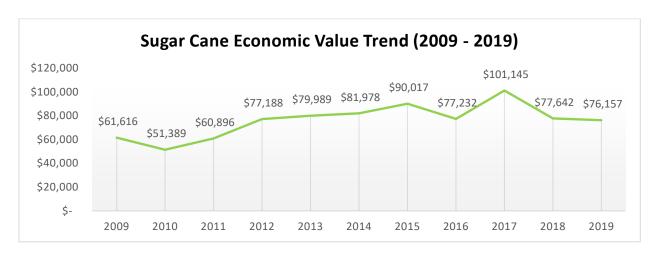
## **SUGAR**

SUGARCANE	2018	2019	% Chg
Quantity (tons)	1,707,537	1,794,029	5%
Price	\$45.47	\$42.45	-7%
Value	\$77,641,707.39	\$76,156,531.05	-2%
Total Acreage	99,227.00	100,000.00	1%

Table 2. Table illustrating Sugarcane production, acreage and economic value (2018 and 2019)

Sugar cane acreage planted as compared to last year increased by 1% due to the expansion in acreage planted in the West. Income generated from the sales of raw sugar decreased by 2% due to drop of 7% in world price per long ton of sugar.

In 2018 BSI/ASR made major investments in expanding Direct Consumption Sugar production to meet the markets demand of CARICOM. It is expected that with this investment the quality of direct consumption sugar will improve to meet the consumers' needs within CARICOM and in the region.

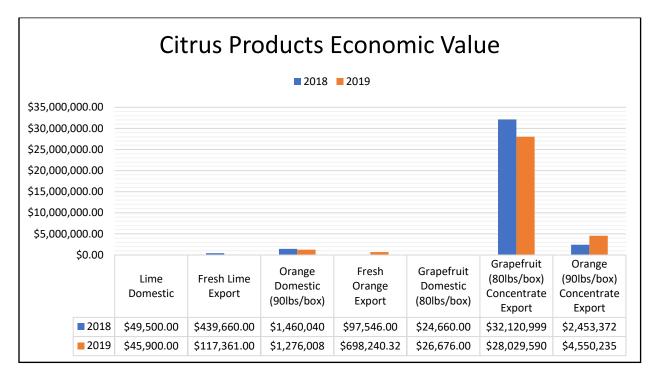


*Graph 2. 10 year trend for economic output value for Sugarcane (2009 and 2019)* 

Graph 2 indicates that economic value contribution for sugarcane decreasing in 2017, 2018 and 2019. This is largely due to the decrease in price per long ton of sugar and the losses experienced in production due to the drought.

Sugarcane losses as a result of the September 2019 drought averaged 390,924 long tons or 21,718 acres of cane amounting to BZE\$19,350,738 in economic loss.

#### **CITRUS**



Graph 3. Illustrating Citrus Economic Value 2019

Orange concentrate is the largest economic contributor in the Citrus sector followed by grapefruits concentrate. Both are exported. The third major contributor is oranges sold in the local market.

CITRUS CONCENTRATE EXPORT (Orange)			
Orange (90 lbs/box)	2018	2019	%Change
Quantity (90lbs/box)	2,433,409	2,126,676	-13%
Price (BZD)	\$13.20	\$13.18	-0.2%
Value (BZD)	\$32,120,999	\$28,029,590	-13%
Total Acreage	33,245	31,118	-6%

Table 3. Illustrating Citrus Production for Export

The exported orange concentrate is the largest value contributor of the citrus sector to the economy. From 2018 to 2019 there was a 13% decrease in product exported and a price drop of 0.2% was also observed. The overall economic value of orange concentrate exports decreased from \$32.1 million in 2018 to \$28 million in 2019 an equivalent dip of 6%. The decrease in acreage being a significant factor in the decreases of production and economic output.

CITRUS DOMESTIC CONSUMPTION			
Lime	2018	2019	%Change
Quantity (lbs)	150,000	150,000	0%
Price (BZD)	0.33	0.30	-9%
Value (BZD)	49,500	45,000	-9%

	CITRUS EXPORTS				
Lime		2018	2019	%Change	
	Quantity (lbs)	879,320	234,722	-73%	
·	Price (BZD)	\$0.50	\$0.50	0%	
	Value (BZD)	\$439,660.00	\$117,361.00	-73%	

*Table 4. Illustrating Citrus Lime production for both domestic and export* 

Lime production for domestic consumption remained relatively the same as in 2018; the price per pound however decreased by 9% from 33 cents in 2018 to 30 cents in 2019. This in turn had a 9% decrease in the economic value of the commodity.

Fresh lime for export reported a 73% decrease in 2019. The price per pound remained stable but due to lower productivity the economic value decreased by 73% earning a total value of \$45,000. Lower productivity was attributed to the 2019 drought that affected yields.

CITRUS DOMESTIC CONSUMPTION				
Orange (90 lbs/bx)	2018	2019	%Change	
Quantity (90 lbs/bx)	121,670	106,334	-13%	
Price (BZD)	\$12.00	\$12.00	0%	
Value (BZD)	\$1,460,040	\$1,276,008	-13%	
	FRESH CITRUS EXE	PORTS		
Orange	2018	2019	%Change	
Quantity (lbs)	286,900	1,887,136	558%	
Price (BZD)	\$0.34	\$0.37	9%	
Value (BZD)	\$97,546.00	\$698,240.32	616%	

Table 5. Illustrating Citrus (Oranges) for both domestic and exports

The quantity of Oranges sold in the domestic market decreased by 13%. The economic value decreased by 13% simultaneously in 2019. From data gathered the consumption decreased due to availability of oranges related to citrus greening. The industry exports most of the oranges as it has greater economic benefits.

At the same time fresh oranges exports increased by over a 100% in quantity (lbs). The price also increased by 9% which resulted in the total economic value increase accounting for a value of \$698,240.32. This increased production (lbs) was related to the citrus replanting program and the increase in price. Farmers delivered more citrus to the CPBL plant for processing and less for the domestic market.

CITRUS CONCENTRATE EXPORT (Grapefruit)			
Grapefruit (80 lbs/box)	2018	2019	%Change
Quantity (80lbs/box)	205,475	222,288	8%
Price (BZD)	\$11.94	\$20.47	71%
Value (BZD)	\$2,453,372	\$4,550,235	85%
Total Acreage	5,147	4,995	-3%

*Table 6. Citrus (Grapefruit) illustrating production data export* 

Grapefruit for domestic consumption increased by 8% and the price per 80/lbs box remained steady. The overall economic output was recorded at \$26,676. The impact was relatively small when compared to other citrus products.

Grapefruit concentrate saw a significant 85% increase in economic value which amounted to \$4.5 million. This increase was primarily due to the 71% price increase per 80/lbs box. Even though the total acreage under production decreased by 3% the yield was higher in 2019 by 8%. This increase in production and higher price, resulted in the 85% increase in economic value generated by the exportation of grapefruit concentrate

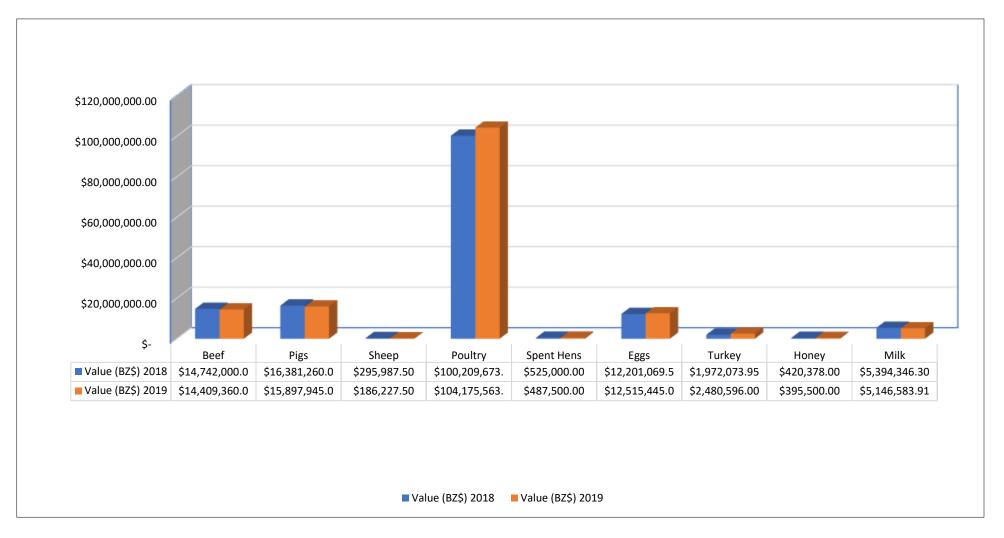
#### **BANANA**

BANANA	2018	2019	%Change
Apple Banana (Bunches)(30 lbs/bunch)			
Quantity (Bunches)(30 lbs/bunch)	6,779	4,550	-33%
Price (BZD)	\$8.00	\$8.00	0%
Value (BZD)	\$54,232.00	\$36,400.00	-33%
Banana Domestic Consumption			
Quantity (40 lbs/Box)	553,892	577,259	4%
Price (BZD)	\$12.00	\$12.00	0%
Value (BZD)	\$6,646,704.00	\$6,927,108.00	4%
Total Banana Production (lbs)	177,245,431	184,722,920	4%
Total Banana Value (BZD)	\$79,051,520.00	\$77,398,903.00	-2%
Total Banana Acreage (BZD)	6107	7500	23%

Table 7. Illustrating production data for Banana both Domestic Consumption and Export.

Banana production increased by 4% accounting to 184.7 million lbs in production. The acreage under production also saw an increase of 23% accounting for 7,500 acres. The increase in production can be attributed to the replanting projects and good management practices being adopted by most farmers in the banana belt. Most of the banana is destined for the EU market, only a small portion of the production remains in Belize for the domestic consumption.

# **LIVESTOCK**



Graph 4. Illustrating Livestock Economic Value 2019

Poultry sub sector is the largest contributor of the Livestock Sector, followed by beef and eggs, milk and turkey. Below is a breakdown of individual data specific to commodity.

#### **BEEF**

Beef	2018	2019	%Change
Cattle Population	158,228	164,853	4%
Head Slaughtered	8736	8539	-2%
Dressweight (lbs)	3,931,200	3,842,496	-2%
Beef Export (on the hoof) (\$/lbs) (BZD)	\$3.75	\$3.75	0%
Beef Export ( on the hoof) (lbs)	19,594	30,701	157%
Value (BZD)	\$14,742,000	\$14,409,360	-2%

Table 8. Illustrating beef production and economic data for both domestic consumption and export

The total cattle population in 2019 stood at 164,853 heads a 4% increase when compared to 2018. Cattle slaughtered decreased by 2%, which is relative to the demand in local market. Prices for dress weight cattle have remained stable from 2018 to 2019 at \$3.75 BZD per lb. All slaughtered data are for domestic consumption only. Total exports for cattle increased by over 100% which was a steed increase.

Milk	2018	2019	%Change
Quantity (lbs)	11,008,870	10,091,341	-8%
Price (BZD)	\$0.49	\$0.51	4%
Value (BZD)	\$5,394,346	\$5,146,584	-5%

Table 9. Illustrating Milk production and Economic Value

The national demand of milk has decreased by 8% in 2019 but prices increased by 4% when compared to 2018. The local milk industry production is expected to remain steady considering that the product is produced for self- consumption, and the production of cheese and ice-cream by small and large businesses. Currently ice cream and cheese is exported to Grenada.

#### **SHEEP**

Sheep	2018	2019	%Change
Heads Slaughtered	2,631	1,655	-37%
Quantity (lbs)	118,395	74,491	-37%
Price (BZD)	\$2.50	\$2.50	0%
Value (BZD)	\$295,988	\$186,278	-37%

Table 10. Illustrating Sheep production and economic value

Heads of sheep slaughtered has seen a sharp decrease of 37% in 2019 when compared to last year's figures which is attributed to a decrease in local market demand. Price for sheep remained constant.

The Ministry has been promoting the expansion of the sheep sector in Belize with the intention of expanding its market to Central America. Its technical advances are being supported by Taiwan. In 2019, the Genetic Improvement in Sheep and Goat Project achieved the training of sheep farmers in good management practices and the importation of new bloodlines of sheep from the United States of America.

The Ministry along with OIRSA are also working together to implement a traceability system for sheep.

#### **PIGS**

Pigs	2018	2019	%Change
Pig Poulation (Heads)	28,706	29,361	2%
Heads Slaughtered	39,003	37,852	-3%
Quantity (lbs)	4,680,360	4,542,270	-3%
Pigs Export(on the hoof)(lbs) (BZD)	\$3.50	\$3.50	0%
Value (BZD)	\$16,381,260	\$15,897,945	-3%

Table 11. Illustrating Pig production and economic value

Pigs slaughtered decreased by 3% when compared to last year's figures and as result total economic output decreased by 3% as well. Price for pigs remain stable.

The Ministry of Agriculture is also working on improving the pig breeding stock to increase the production of healthy pigs.

#### **HONEY**

Honey	2018	2019	%Change
Quantity (lbs)	120,108	113,000	-6%
Price (BZD)	\$3.5	\$3.5	0%
Value (BZD)	\$420,378.00	\$395,500.00	-6%

*Table 12. Illustrating Honey production and economic value* 

Honey production saw a decrease of 6% in 2019 accounting for 113,000 lbs. The price remained the same and the overall economic value also saw a 6% decrease relative to production.

Honey production is being supported by the government of Belize. A strategic plan has been developed and Bee Act has been updated in order to ensure that industry has a plan and is protected. Moreover, the Ministry will be implementing a honey bee plot in Central farm to

train farmers. Honey bees will also be imported to ensure and improve the quality and current production of honey.

# **POULTRY**

Poultry	2018	2019	%Change
No. of Birds (Slaughtered)	11,670,302.00	12,018,991.00	3%
Quantity (lbs)	43,380,811	44,903,260	4%
Price (BZD)	\$2.31	\$2.32	0%
Value (BZD)	\$100,209,673.41	\$104,175,563.20	4%

Table 13. Illustrating Poultry production and economic value

Poultry production has increased by 4% in 2019 which is a result of increased local demand. The number of slaughtered birds increased by 3% and the price remained relatively stable.

This contributed to a 4% increase in economic value when compared to 2018. Poultry production remains steadfast as most Belizeans prefer poultry as their primary source of protein.

Spent hens	2018	2019	%Change
Quantity (no. heads)	150,000	150,000	0%
Price (BZD)	\$3.50	\$3.25	-7%
Value (BZD)	\$525,000.00	\$487,500.00	-7%

Table 14. Illustrating Spent Hens production and economic value

The number of chickens slaughtered by the processor as compared to last year remains the same. There has been no increased demand for chicken in the local market.

Eggs	2018	2019	%Change
Quantity (dozen)	5,105,050	5,006,178	-2%
Price (dozen) (BZD)	\$2.39	\$2.50	5%
Value (BZD)	\$12,201,069.50	\$12,515,445.00	3%

Table 15. Illustrating Egg production and economic value

Egg production decreased by 2% in 2019 when compare to 2018. The price of eggs has also increased by 5% when compared to last year and as a result the economic value has also increased by 3%.

## **TURKEY**

Turkey	2018	2019	%Change
No. of Turkey (Slaughtered)	36,091	45,201	25%
Quantity (lbs)	512,227	620,149	21%

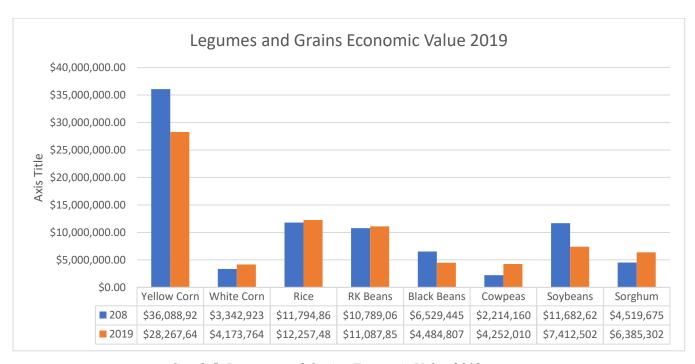
Price (BZD)	\$3.85	\$4.00	4%
Value (BZD)	\$1,972,073.95	\$2,480,596.00	26%

Table 16. Illustrating Turkey production and economic value

The number of turkeys slaughtered in 2019 as compared to last year increased by 25%. Moreover, prices also increased by 4%, for this reason the income generated from turkey also increased by 26% equivalent of 2.4 million BZD.

Total Economic output for the Poultry Industry in 2019 amounted to \$115,839,514 BZD.

# **GRAINS AND LEGUMES**



Graph 5. Legumes and Grains Economic Value 2019

## **CORN**

Yellow Corn	2019	2020	%Change
Quantity (lbs)	156,908,349	113,070,595	-28%
Price (BZD)	\$0.23	\$0.25	9%
Value (BZD)	\$36,088,920.27	\$28,267,648.75	-22%
Total Acreage	38,807	42,385	9%

Table 17. Illustrating Yellow Corn production and economic value

In 2019 yellow corn production decreased by 28% even though the total acreage planted increased by 9%. The September drought affected the Cayo and Orange Walk districts production. Price for yellow

corn increased by 9% but the total economic value output decreased by 22% due to low production and yield.

White Corn	2019	2020	%Change
Quantity (lbs)	14,534,450	14,906,300	3%
Price (BZD)	\$0.23	\$0.28	22%
Value (BZD)	\$3,342,923.50	\$4,173,764.00	25%
Total Acreage	6,876	7,944	16%

Table 18. Illustrating White Corn production and economic output

White corn was affected by similar conditions to that of yellow corn. White corn however saw an increase of 3% in production which saw a steep increase of 25% in economic output value. The price of white corn also saw a sharp increase of 22% which can be attributed to the increase in economic value. Likewise, total acreage increased by 16%.

Farmers have expressed an interest in the continued growth of corn at the average rates however losses due to weather changes and drop in prices are discouraging farmers increased production. Several farmers are substituting corn with soybean. In the latter part of 2019 the grains industry in general suffered due to the effects of drought.

The September Drought 2019 affected 1902 acres of white corn amounting to a total economic loss of 1,188,006 BZD. Yellow Corn also experienced losses for 9,952 acres amounting to a total economic value of 20,966,006 BZD.

# **RICE**

Rice paddy	2018	2019	%Change
Quantity (lbs)	29,487,155	30,643,700	4%
Price (BZD)	\$0.40	\$0.40	0%
Value (BZD)	\$11,794,862.00	\$12,257,480.00	4%
Total Acreage	6,715	5,969	-11%

Table 19. Illustrate Rice production and economic output

Rice production saw a 4% increase to 30.6 Million pounds in 2019. The estimated economic output value increased by 4% simultaneously to production. Prices per pound remained the same as in 2018 and the yield per acre contributed to increased production even though area planted was less than 11% of 2018 acres planted.

## **RK BEANS**

RK Beans	2018	2019	%Change
Quantity (lbs)	11,987,850	11,671,425	-3%
Price (BZD)	\$0.90	\$0.95	6%

Value (BZD)	\$10,789,065.00	\$11,087,853.75	3%
Total Acreage	16151	12458	-23%

Table 20. Illustrating RK Beans production and Economic value

There was a 3% or 11.6 million lbs decrease in production in comparison to the 2018, 11.9 million lbs of production. The decrease in production is a direct result of less acreage being planted equivalent to 23% less. Of note is the price increase of 6% which saw contributed to a much higher economic output of 3% in 2019 when compared to the year before. Economic impact was due to higher prices per pound in 2019.

#### **BLACK BEANS**

Black Beans	2018	2019	%Change
Quantity (lbs)	6,873,100	4,720,850	-31%
Price (BZD)	\$0.95	\$0.95	0%
Value (BZD)	\$6,529,445.00	\$4,484,807.50	-31%
Total Acreage	9548	5469	-43%

Table 21. Illustrating Black Beans production and economic value

Black beans saw a drastic 31% decrease in production during 2019. This drastic decrease can be seen and correlated with the big drop in acreage planted which is equivalent to 43% when compared to 2018. This decrease in production usually depends on which commodity is fetching a better price. Farmers tend to plant the commodity that has a better price at any given moment. The price per pound remained the same and the total economic value decrease by 31% as a result of less production.

# **COWPEAS**

Cowpeas	2018	2019	%Change
Quantity (lbs)	3,406,400	4,475,800	31%
Price (BZD)	\$0.65	\$0.95	46%
Value (BZD)	\$2,214,160.00	\$4,252,010.00	92%
Total Acreage	4347	3987	-8%

Table 22. Illustrating Cowpeas production and economic value

Cowpeas saw an increase of 31% in productivity equivalent to 4.4 million pounds in 2019 even though less acreage was planted (8% less). This can be attributed to good weather conditions and thus more yield was reported per acre when compared to previous years. On another note the price per pound of cowpeas rose by 46% yielding the steepest increase in economic value among grain commodities of 92% (4.2 million).

#### **SOYBEANS**

Soybean	2018	2019	%Change
Quantity (lbs)	25,961,387	17,238,377	-34%
Price (BZD)	\$0.45	\$0.43	-4%
Value (BZD)	\$11,682,624.15	\$7,412,502.11	-37%
Total Acreage	15,818	17,485	11%

Table 23. Illustrating Soybeans production and economic value

Soybean production has decreased by 34% equivalent of 17.2 million pounds. The price per pound of soybeans decreased by 4% which yielded a 37% decrease in economic value of 7.4 million BZD. Total acreage planted increased by 11% but the weather condition due to drought had caused a decline in production.

As mentioned in the report several farmers, have substituted from the production of corn to soybean. Spanish Lookout has indicated the intention to increase the production of this commodity. Soybeans are being used for animal feeds a source of protein. The community is also making investments into the crude oil machines and refined oil for human consumption. The Community is also interested in meeting the CARICOM demand of Soybean Oil for human consumption.

The drought also affected soybean production and approximately 8,798 acres were lost equating to 6,651,439 BZD.

# **SORGHUM**

Sorghum	2018	2019	%Change
Quantity (lbs)	18,078,700.00	29,024,100	61%
Price (BZD)	\$0.25	\$0.22	-12%
Value (BZD)	\$4,519,675.00	\$6,385,302.00	41%
Total Acreage	8,304	13,313	60%

Table 24. Illustrating Sorghum production and economic value

Sorghum saw a 61% increase in production accounting for 29 million pounds. This increase is directly related to increase in acreage or amount planted which increased to 60% in 2019. The price per pound decreased by 12% but the economic output value still saw 41% increase which was compensated by good yield and production.

### **VEGETABLES ROOTS AND TUBERS**

Graph 4. Vegetables, Roots & Tubers Economic Value 2019 (BZD)

	2018	2019	%Change
Sweet Pepper	\$5,933,520.00	\$4,077,518.00	-31%
Irish Potato	\$2,715,752.00	\$2,965,225.00	9%
Tomatoes	\$2,337,840.00	\$1,227,146.00	-48%
Plantain (bunches)*	\$2,286,074.00	\$2,250,220.00	-2%
Cabbage	\$1,337,397.00	\$1,207,523.85	-10%
Onion	\$1,158,268.00	\$1,800,132.75	55%
Hot peppers (local)	\$1,140,075.00	\$840,957.00	-26%
Cocoa	\$849,317.00	\$728,061.00	-14%
Ginger	\$776,125.00	599,362.50	-23%
Carrots	\$692,807.00	\$842,750.30	22%
Cocoyam	\$553,148.00	\$467,560.00	-15%
Cucumber	\$375,733.00	\$145,159.20	-61%
Lettuce	\$360,505.00	\$617,265.00	71%
Squash	\$288,600.00	\$132,300.00	-54%
Sweet Potato	\$247,238.00	\$142,950.00	-42%
Celery	\$224,910.00	\$174,300.00	-23%
Cauliflower	\$140,262.00	\$135,057.00	-4%
Pumpkin	\$132,458.00	\$128,750.00	-3%
Broccoli	\$125,700.00	\$147,960.00	18%
Cho-cho	\$95,025.00	\$56,775.00	-40%
Yampi	\$71,723.00	\$50,740.00	-29%
Yam	\$65,300.00	\$104,652.00	60%
Chinese Cabbages	\$52,625.00	\$33,786.00	-36%
String Beans	\$32,418.00	\$10,200.00	-69%
Sweet Corn (ears)	\$28,800.00	\$147,200.00	411%
Okra	\$24,238.00	\$50,006.60	106%
Vegetables, Roots and Tubers Totals	\$22,045,858.00	\$19,083,557.20	-13%

Table 25. Illustrating Vegetables, Roots and Tubers

The totals generated from the sales of locally produced vegetables, and roots and tubers has decreased by 13%. As mentioned above weather conditions have been affecting production levels. Average market prices for the category have remained relatively the same.

While sweet pepper, Irish potato, tomatoes, plantain, cabbage and onions have managed to generate over \$ 1 million in economic output. Income generated and production for sweet peppers and tomatoes have decreased. The commodity that saw the biggest increase was onion and accounted for an estimated 55% increase at 1.8 million BZD. The commodity that increased more drastically with economic output was sweet corn that saw an increase of over 100%. This can be related to demand and the use of irrigation for production. Okra also saw a 106%

increase in economic value. Lettuce also saw a 71% increase in economic value output which can be attributed to more demand in the local market.

The overall contribution of the vegetables, roots and tubers saw an estimated 10% decrease when compared to 2018. This accounts for 22.8 million BZD in economic output. All commodities which experienced a decrease in economic output were attributed to change in weather conditions and directly related to drought. This situation highlights the effects of climate change on production output and the need for the adaptation of climate smart technologies such as water harvesting, the use of- irrigation and cover structures just to name a few.

END.