

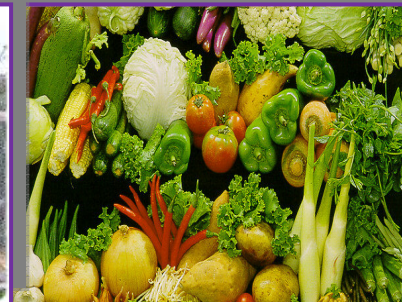
# Hydrometeorological Service of Guyana

## Farmer's Monthly Weather Bulletin

*This bulletin is prepared by the Hydrometeorological Service of Guyana. We welcome feedback, suggestions and comments on this bulletin. Correspondences should be directed to: The Chief Hydrometeorological Officer (Ag), and the Agronomist.*

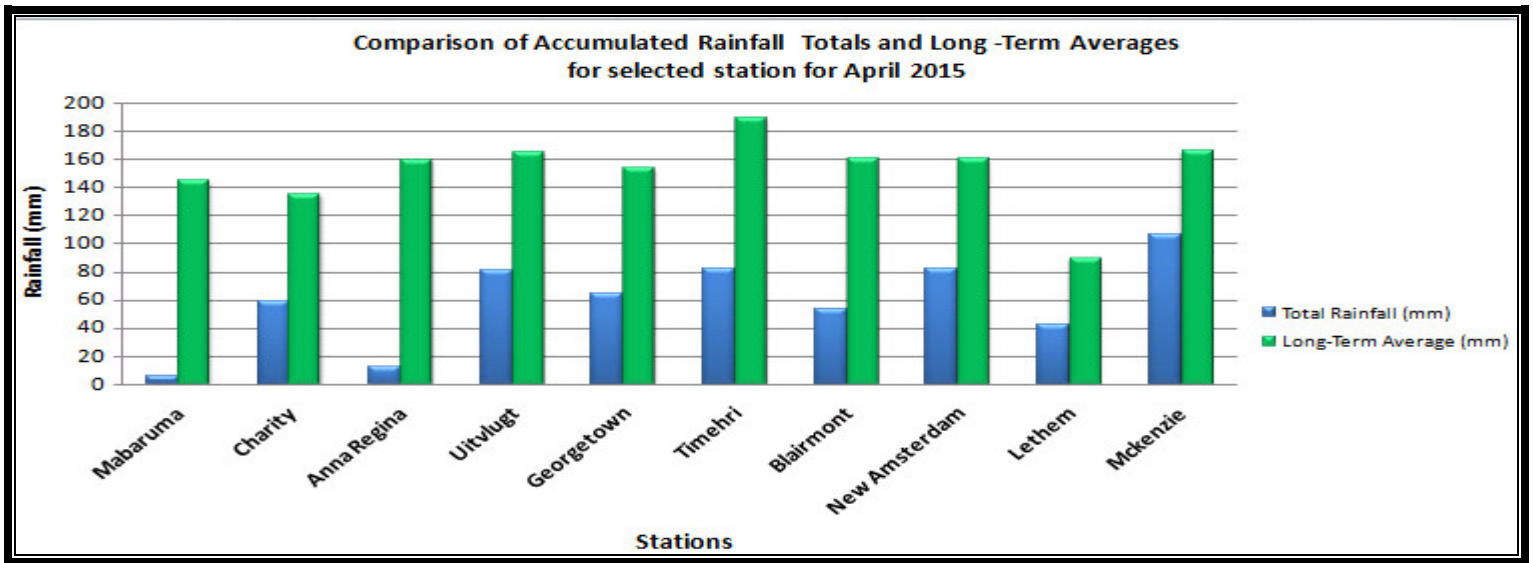
### HIGHLIGHTS

- Guyana was classified as Dry (D) for the month of April 2015.
- Region 1 recorded the lowest average rainfall total for the month of April with a total of 61.8 mm of rainfall with 6 rain days.
- The highest one day rainfall total was recorded at Awaruwaunau Region 9, with a total of 96 mm of rainfall on the 12<sup>th</sup> of April, 2015.
- Weak El Niño conditions expected to continue in the upcoming months.
- Late start to the primary wet season of 2015 anticipated.
- The Ministry of Agriculture's **"El Niño Watch"** in effect.



## Rainfall Overview for April, 2015

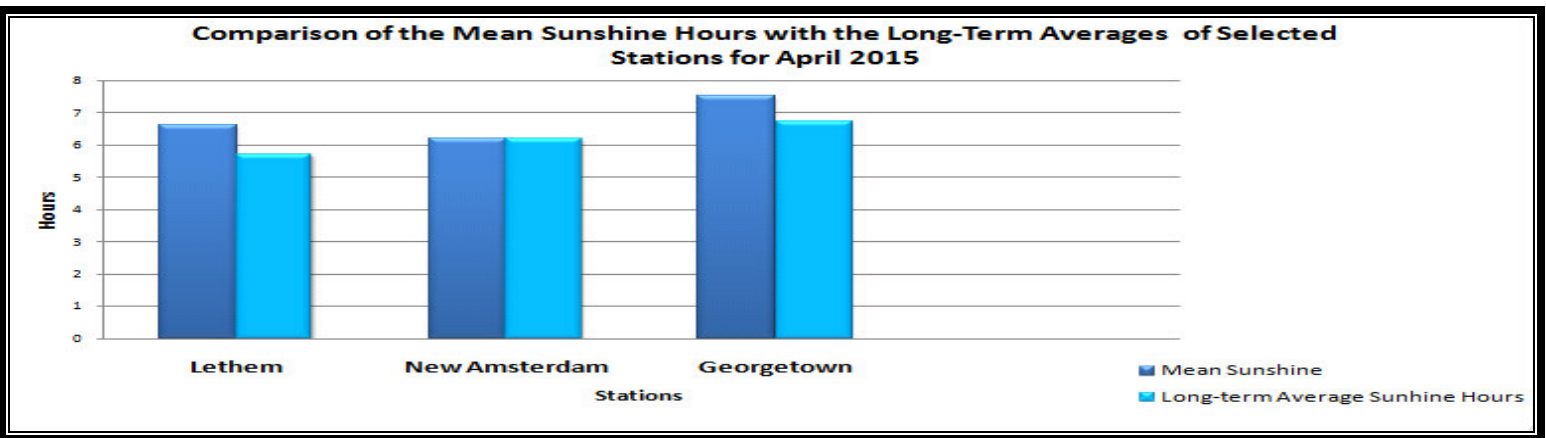
For the month of April Guyana was classified as Dry(D) averaging 84.7mm of rainfall with 9 rain days. The highest monthly rainfall total was recorded at Awarewaunau Region 9, with 261.7mm in 10 rain days. Regional classification showed that Region 9 also recorded the highest monthly average with 115.8mm. Mabaruma Region 1, was the station that recorded the lowest monthly rainfall total with 5.7 mm of rainfall this value was mere 3.9% of the long-term value of the station for the month. Data analyzed thus far has revealed that most stations in Guyana recorded below normal rainfall totals for the month. The graph below shows the comparison of accumulated rainfall and long-term averages.



**Fig#1: Comparison of the Accumulated Rainfall Totals and Long-term Averages of selected stations for April 2015.**

## Sunshine Hours Summary for April, 2015

Georgetown recorded the highest mean sunshine hours of 7.5 hours for the month and the highest one day total of 10.4 hours on the 5th of April. Both Lethem and Georgetown recorded mean sunshine hours value above their long-term averages. New Amsterdam recorded the lowest mean sunshine hours of 6.2 which was equal to that station's climatological average.



**Fig# 2: Comparison of the Mean Sunshine hours with the Long-term Averages for selected stations for April 2015**

**Table #1: Classification of Regional Rainfall Data for the Month of April 2015**

Region	Average Rainfall (mm)	Average Rain day	Classification	Remarks
1	61.8	6 days	Dry (D)	Mabaruma recorded 5.7 mm of rainfall in 3 rain days.
2	62.3	8 days	Dry (D)	St.Denny's Mission recorded 103.6 mm of rainfall with 11 rain days.
3	93.7	9 days	Dry (D)	Leguan recorded 185.7 mm of rainfall with 9 rain days.
4	74.4	11 days	Dry (D)	St. Cuthbert's Mission recorded 172.4 mm of rainfall with 12 rain days.
5	73.0	9 days	Dry (D)	Wash Clothes recorded 113.0 mm of rainfall with 15 rain days.
6	89.7	10days	Dry (D)	Springland Forestry recorded 176.2 mm of rainfall with 12 rain days.
7	87.2	11 days	Dry (D)	Bartica Agri recorded 110.7 mm of rainfall with 8 rain days.
8	Kaieteur recorded 397.6 mm of rainfall with 20 rain days.  Very Wet(VW)			
9	115.8	9 days	Dry (D)	Awaruwaunau recorded 261.7 mm of rainfall with 10 rain day.
10	105.3	13 days	Moderately Dry(MD)	Ebini recorded 123.3mm of rainfall with 14 rain days.

## Temperature Overview for April 2015

In the month of April the highest mean maximum temperature was recorded at Lethem Region 9 with a value of 33°C which was below the station's long-term average by 0.1 °C. Lethem also recorded the highest one day temperature for the month with a value of 36.0°C on the 8<sup>th</sup> of April. Of the stations analyzed Georgetown recorded the lowest mean maximum temperature of 29.4°C. The lowest mean minimum temperature was recorded at Timehri Region 4, with 20.9 °C, this value was also below the station's long term average by 1.4°C. This station also recorded the lowest minimum one day total of 18.5 °C on the 5<sup>th</sup> of April. .

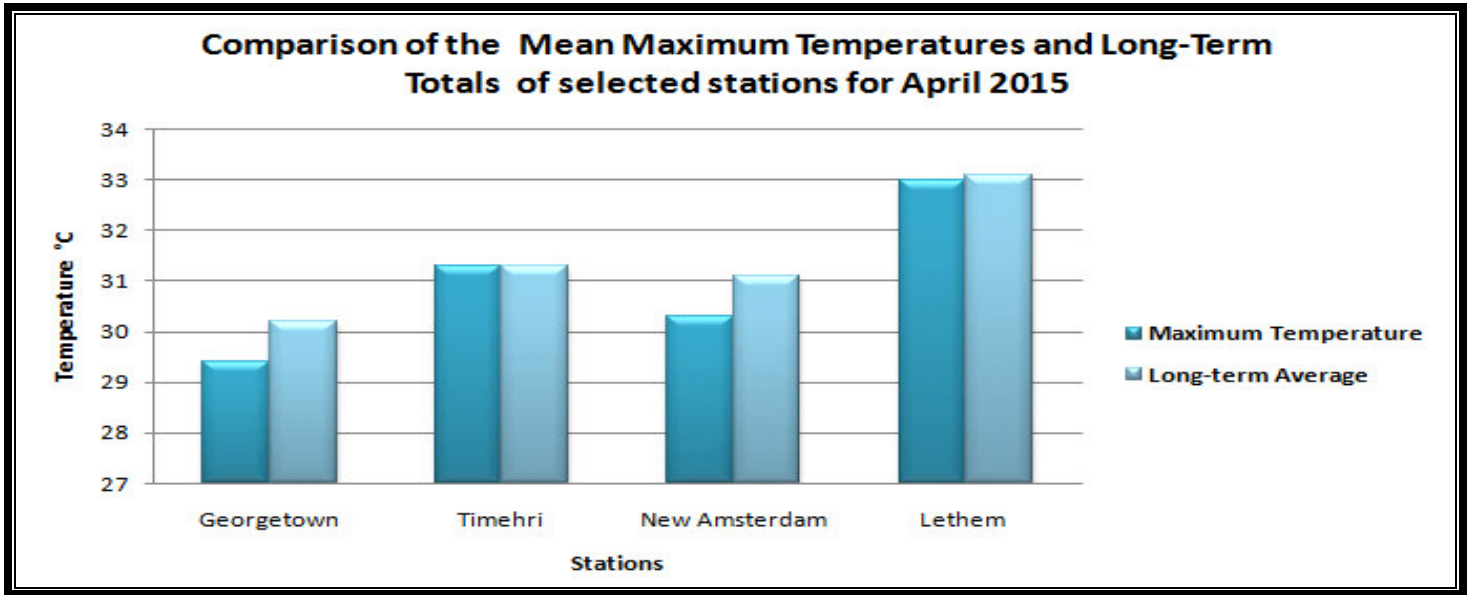


Fig # 3: Comparison of the Maximum temperatures and Long-term Averages for selected stations for April 2015.

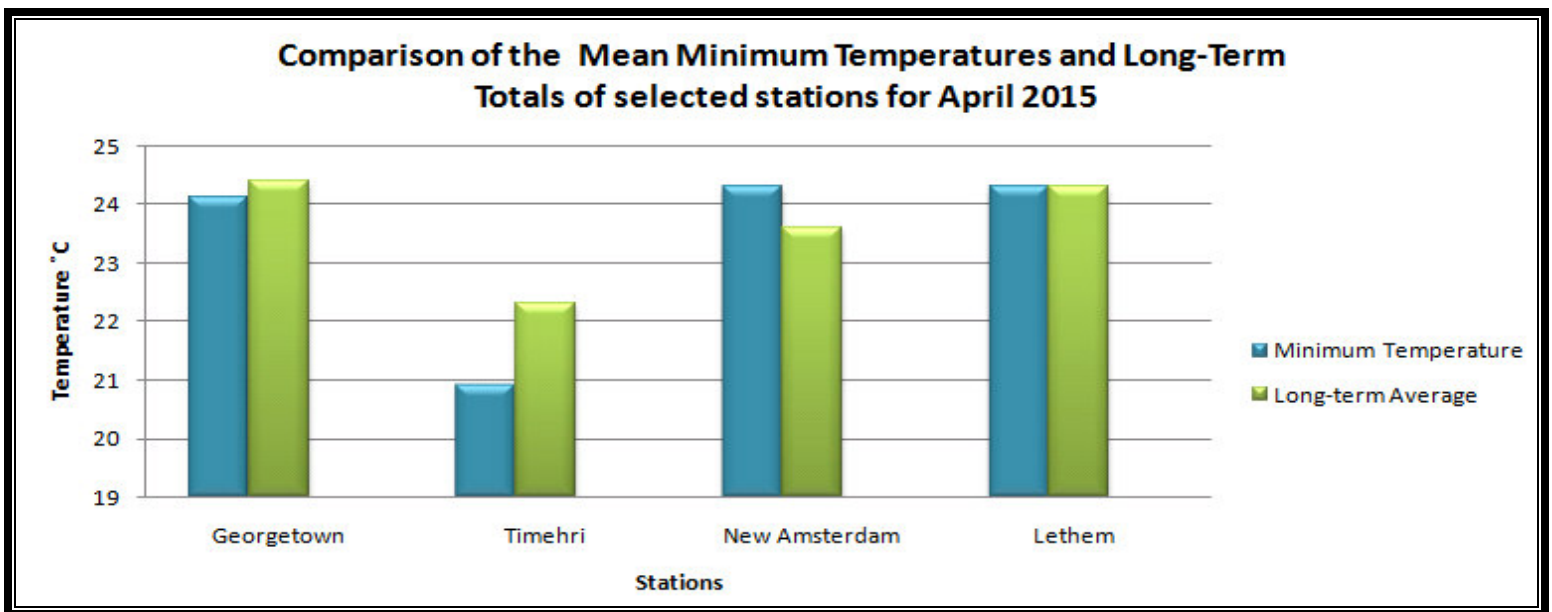


Fig # 4: Comparison of the Minimum temperatures and Long-term Averages for selected stations for April 2015.

## Agricultural Review for April, 2015

Generally dry conditions were experienced over most parts of Guyana for the month. No major effect of the weather on agricultural production was reported. However, in some regions there were reports of the shortages of water supply for domestic purposes.

On a visit to farms in the Buxton/Friendship area many farmers complained about the lack of rain since most of their crops are rain-fed. Nevertheless they also make use of a small reservoir to irrigate their crops.



Photo 1: Cassava plants on a bed with dry soil.



Photo 2: A bed of Callalo irrigated using water from a nearby reservoir.

## Farmer's Note for May, 2015

A delay in the primary rainy season of 2015 is anticipated since Weak El Niño conditions are currently being observed. In addition, there is a high probability that the approaching rainy season will see less than normal rainfall. Please note this does not mean no rain rather a reduction in the rainfall that is normally expected. Thus, in this light, farmers are encouraged to make use of this opportunity to carry out activities such as land preparation, harvesting of crops, drying of produce, etc. Farmers are also being encouraged to conserve water for both domestic and agricultural purposes. It is important that farmers listen to the advisories of their regional agriculturists or extension officers. It is very important that farmers be vigilant about the weather and follow the Hydromet's daily and three day forecast via the radio on 56.0 AM and our website at [www.hydromet.gov.gy](http://www.hydromet.gov.gy), which can be a useful tool to assist them in the planning of their agricultural activities.

## Seasonal Forecast for May – July, 2015

The recent statistical and forecast models are finding it difficult to predict rainfall for Guyana for the forecast period. However, below normal rainfall is expected over most parts of Guyana. A delay in the start of the primary wet season of 2015 is also anticipated.

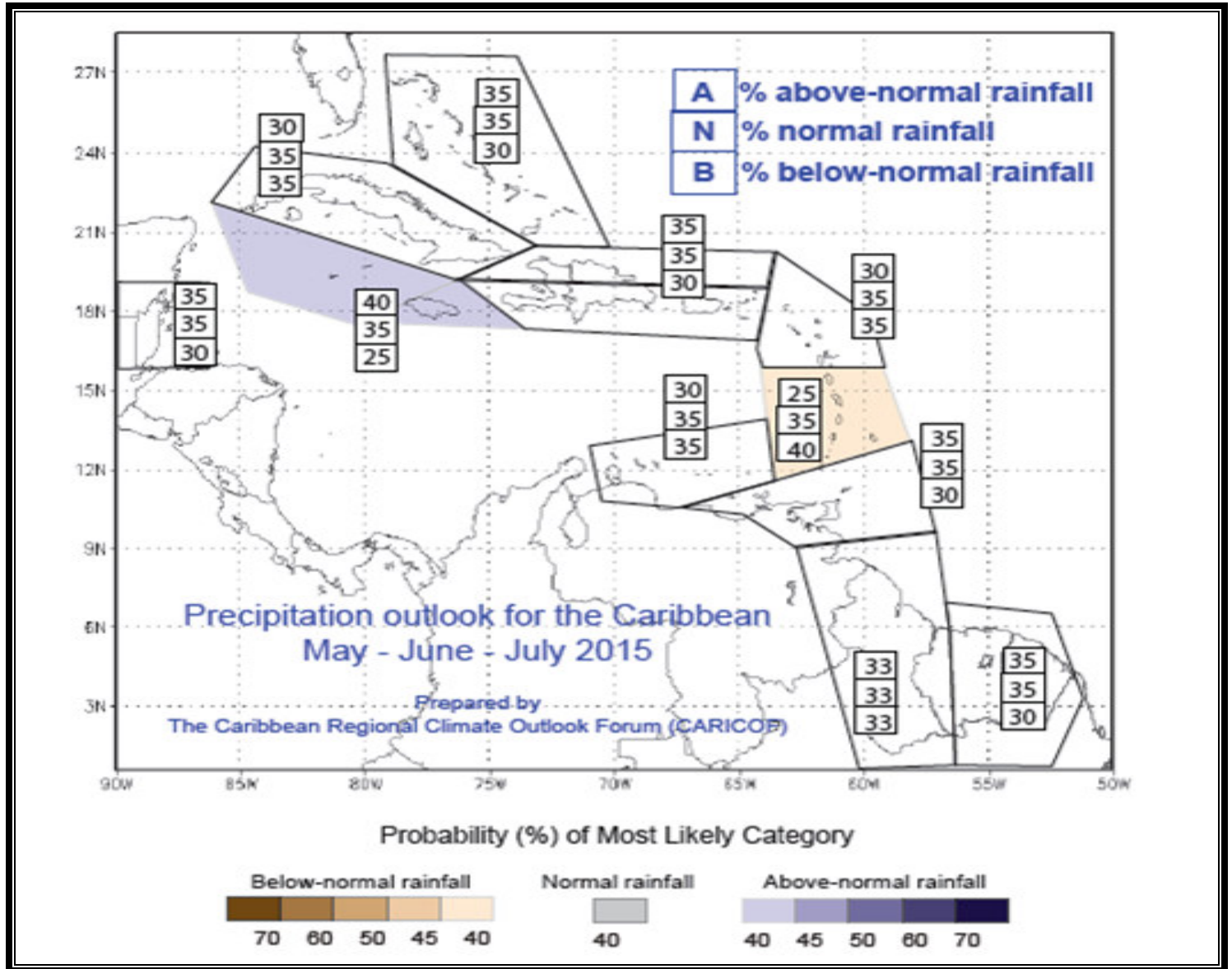


Figure # 5: Indicating the Percentages of above Normal (A), Normal (N) and Below Normal (B) rainfall conditions for Guyana and the Caribbean.

**Table#2 Rainfall Normals and Averages of selected rainfall stations**

Region	Station Name	May	June	July	Region	Station Name	May	June	July	
1	MABARUMA *	327.0	342.7	232.4	5	BLAIRMONT	257.5	280.9	241.6	
	WAUNA	223.1	315.9	288.6		MARDS	257.7	246.2	251.6	
2	PORT KAITUMA	251.0	305.3	261.1	6	ALBION	225.9	249.2	212.1	
	ANNA REGINA*	333.2	310.5	249.0		SKELDON	250.4	265	256.0	
	CHARITY	295.6	305.8	251.7		CRABWOOD CREEK*	182	157.7	157.7	
	Mc NABB	278.2	306.6	255.1		ROSE HALL	275.5	287.6	218.3	
	WAKAPOW	321.5	334.8	320.4		NIGG 58	238.4	260.3	208.8	
3	ONDERNEEMING	264.4	263.2	177.7	7	ALBION 33	214	249.2	109.5	
	BOERSARIE	382.6	415.4	357.5		#73 VILLAGE	255.3	254.5	191.7	
	DeKENDEREN B	346	385.1	315.4		# 54 VILLAGE*	206.3	184.9	156.1	
	DeKENDEREN F	345.2	376.5	304.1		ANKERVILLE	247.7	253.4	218.5	
	LEORNORA F	309	348.3	296.4		MIBIKURI	238.8	248.3	214.3	
	LEORNORA B	360.5	392.9	318.5		MARA LAND DEV. SCHEME*	221.6	284.8	206.2	
	WALES	343	338.5	315.7		NEW AMSTERDAM	259.8	276.4	231.2	
	UITVLUGT B	335.4	260.8	307.2		APAIKWA	342.9	351.7	266.2	
	La BAGATELLE LEGUAN*	234.2	240.2	190.5		MAZARUNI	294.4	309.5	310.1	
	BOTANIC GARDENS	277.4	310.5	266.2		BARTICA DEM. STATION*	270.3	293.1	224.2	
4	TIMEHRI	318.4	350.4	298.0	8	JAWALLA	295.5	303.9	268.6	
	CANE GROVE B	206.9	223.9	197.1		KAIETEUR FALLS *	610.1	584.9	473.1	
	CANE GROVE F	234.7	269.4	214.8		9	LETHEM	274.5	288.5	256.7
	L.B.I FRONT	247.6	259.8	225.4			KARASABAI	131.4	150.6	168.7
	OGLE FRONT	224.9	227.6	216.0		10	DADANAWA	298.4	307.4	296.5
ENMORE FRONT	278.9	270.6	256.6	GREAT FALLS	364.4		369.7	339.5		
	KAIRUNI*	194.7	228.5	240.9	WISMAR*	262.5	273.8	245.6		

**NOTE = The normals for various stations were calculated by the use of rainfall data from the year 1981- 2010 (30 years).**

**\* = Rainfall Averages (less than 30 years of data).**

**Table # 3: Average rain days for the months May to July for selected stations**

Station Name	May	June	July
Georgetown Botanical Gardens	20days	22days	20days
Timehri Meteorological Station	21days	22days	23days
Ogle	19days	20days	19days
Lethem	18days	20days	20days
Anna Regina	16days	16days	14days
New Amsterdam	18days	20days	18days

**NOTE: Rain day = More than 1 mm of rainfall within a 24 hrs period.**

**TABLE#4: TIDE TABLE FOR MAY, 2015**

MAY HIGH TIDE $\geq 2.74\text{m}$		
DATE	TIME	HEIGHT(m)
2014/05/01	04:51	2.99
	17:56	2.83
2014/05/2	05:25	2.90
2014/05/3	05:59	2.78
2014/05/12	02:22	2.84
2014/05/13	02:57	2.94
	15:16	2.81
2014/05/14	03:33	3.02
	15:59	2.89
2014/05/15	04:12	3.06
	16:44	2.93
2014/05/16	04:53	3.06
	17:28	2.93
2014/05/17	05:38	3.02
	18:13	2.89
2014/05/18	06:26	2.94
	19:01	2.81
2014/05/19	07:20	2.82
2014/05/24	00:28	2.74
2014/05/25	01:20	2.84
	14:03	2.74
2014/05/26	02:04	2.91
	14:52	2.80
2014/05/27	02:43	2.95
	15:38	2.83
2014/05/28	03:20	2.96
	16:20	2.83
2014/05/29	03:55	2.95
	17:01	2.81
2014/05/30	04:29	2.92
	17:39	2.76
2014/05/31	05:04	2.88
	18:17	2.70

Tides Tables are provided by the Maritime Administration Department



NEW MOON 18<sup>TH</sup> AM



FIRST QUARTER 25<sup>TH</sup> PM



FULL MOON 03<sup>RD</sup> PM



LAST QUARTER 11<sup>TH</sup> AM



**Common Name:** *Lettuce*

**Scientific Name:** *Lactuca sativa*

**Plant Type:** Vegetable

**Soil pH:** 6.0-6.5

### Introduction

Lettuce (*Lactuca sativa*) is an annual plant of the daisy family Asteraceae. It is most often grown as a leaf vegetable, but sometimes for its stem and seeds. Lettuce was first cultivated by the ancient Egyptians who turned it from a weed, whose seeds were used to produce oil, into a food plant grown for its succulent leaves, in addition to its oil-rich seeds. Lettuce spread to the Greeks and Romans, the latter of whom gave it the name "*Lactuca*", from which the English "lettuce" is ultimately derived.



### Description

Lettuce plants generally have a height and spread of 6 to 12 inches (15 to 30 cm). The leaves are colorful, mainly in the green and red color spectrums, with some variegated varieties, it is a cool-season crop and its seeds won't germinate when soil temperatures reach above 27°C. During the hot months of summer, lettuce does better in partial shade. Some folks grow lettuce between rows of taller crops like peppers, tomatoes or broccoli. Lettuce also requires a steady supply of water, especially during hot weather.



### Planting

Lettuce is a cool-season crop that requires loose, fertile, sandy loam soils, well-supplied with organic matter is best. Soil should be well-drained, moist, but not soggy with a slightly acidic pH of 6.0 to 6.5 usually 8 to 14 inches (20 to 36 cm) apart. Since the seed is so small, a well-tilled seedbed is essential. Large clods will reduce germination. Make sure soil remains moist but is well-drained. Organic mulch will help conserve moisture, suppress weeds, and keep soil temperatures cool throughout the warmer months.

### Recommended Varieties

- Minetto
- Iceberg

### Health Benefits of lettuce

- Protects the body from lung and oral cavity cancers.
- Help weight loss, contains fiber and cellulose. Besides filling you up, fiber improves your digestion.
- Helps to control Blood pressure and Heart Rate.
- Prevents osteoporosis, iron-deficiency anemia, and believed to protect from cardiovascular diseases, ARMD, Alzheimer's disease.

### Harvesting/Storage

Lettuce can be harvested any time after true leaves form and when it is full size, but just before maturity because you want it young and tender. For the best quality, it's better to pick early than late as lettuce allowed to grow too long may be bitter and tough, harvesting is done in the morning when the leaves are crisp, sweet, and full of moisture. Keep lettuce in the refrigerator for up to 10 days in a loose plastic bag. It's possible to get 2-3 lettuce crops per year, depending on your climate and the variety of lettuce you grow. Loose leaf lettuce and Bibb lettuce usually mature in about 50 days, although some varieties are ready for harvest as early as 25 days. Romaine and crisp head varieties mature in about 80 days. If you grow different varieties and stagger the plantings, your garden can produce a constant supply of fresh greens throughout the growing season.



### Fun Facts About lettuce

- Lettuce is a vegetable that is pretty much immune to any form of preservation. You can't freeze it, can it, dry it, or pickle it.
- The expression 'rabbit food' referring to lettuce, was first recorded in the 1930s.
- The ancient Greeks believed that lettuce induced sleep, so they served it at the end of the meal.
- Thomas Jefferson had 19 varieties of lettuce growing in his garden at Monticello.

### Pests

- Aphids
- Earwigs
- White Mold



18 Brickdam Stabroek  
Georgetown, Guyana

E-mails:

[dianavmisir@yahoo.com](mailto:dianavmisir@yahoo.com).

[d.david@hydromet.gov.gy](mailto:d.david@hydromet.gov.gy)

[dwayne.lanferman@yahoo.com](mailto:dwayne.lanferman@yahoo.com)

Phone : 592-261-2284

592-261-2216

(24 hours National Weather  
Watch Centre numbers)

Or

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## El Niño Update

### ENSO Alert System Status: El Niño Advisory

- **El Niño conditions are present.\***
- Positive equatorial sea surface temperature (SST) anomalies continue across most of the Pacific Ocean.
- There is an approximately 70% chance that El Niño conditions will continue through Northern Hemisphere summer 2015, and a greater than 60% chance it will last through autumn.\*

***Table #5: CPC/IRI Early-Month Consensus ENSO Forecast Probabilities***

Season	La Niña	Neutral	El Niño
<b>MAM 2015</b>	~0%	26%	74%
<b>AMJ 2015</b>	~0%	29%	71%
<b>MJJ 2015</b>	1%	29%	70%
<b>JJA 2015</b>	2%	29%	69%
<b>JAS 2015</b>	2%	30%	68%
<b>ASO 2015</b>	3%	33%	64%
<b>SON 2015</b>	5%	34%	61%
<b>OND 2015</b>	6%	34%	60%
<b>NDJ 2015</b>	7%	34%	59%

### El Niño Facts

- El Niño is associated with a drier wet season.
- If El Niño manifests, less water will be stored during the wet season.
- By consequence, less water would be available for use in the dry season.

***Conserve Water!!!***