

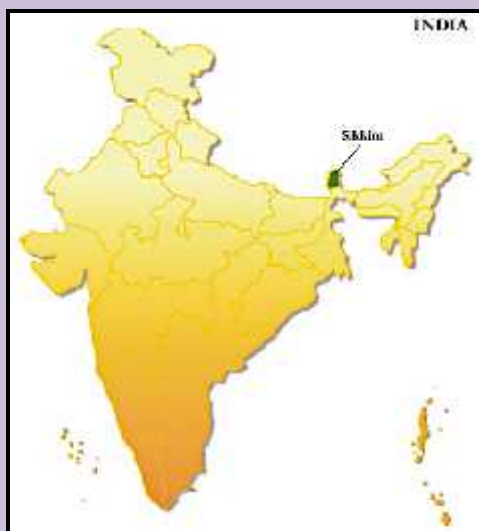


# STATE COMPOSITE AGRO-MET ADVISORY BULLETIN FOR THE STATE OF SIKKIM

**PERIOD: 12<sup>th</sup> JUNE to 16<sup>th</sup> JUNE' 2019**



*IMD, GANGTOK IN COLLABORATION WITH ICAR, GANGTOK, FSAD AND HCCD,  
GANGTOK*



**ISSUED ON TUESDAY 11<sup>th</sup> JUNE'2019**

## Meteorological Sub-division of Sikkim

As per India Meteorological Department's classification, Sikkim is a part of Met Sub-Division of Sub Himalayan West Bengal & Sikkim (SHWB & SKM) and is divided into four (4) Districts:

- 1) North District with HQ at Mangan
- 2) East District with HQ at Gangtok
- 3) West District with HQ at Gyalsing
- 4) South District with HQ at Namchi

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## **Value Added forecast for NORTH-DISTRICT for next five days**

Parameter/Date	12/06/2019	13/06/2019	14/06/2019	15/06/2019	16/06/2019
Rainfall (mm)	Light rainfall	Light rainfall	Light rainfall	Light rainfall	Moderate rainfall
Max Temp ( $^{\circ}$ C)	27	28	29	28	27
Min Temp ( $^{\circ}$ C)	18	18	19	18	18
Sky condition	Generally cloudy	Generally cloudy	Generally cloudy	Generally cloudy	Generally cloudy
Max RH (%)	93	92	90	91	92
Min RH (%)	85	82	78	81	85
Wind Speed (Kmph)	4	4	3	3	3
Wind Direction (deg)	SE	SW	SW	SW	SW

Northerly- **N**, North-Easterly- **N-E**, Easterly- **E**, South-Easterly- **S-E**, Southerly- **S**, South-Westerly- **S-W**, Westerly- **W**, North-westerly- **N-W**.

Weather for preceding week			
Date	Rainfall	Max. Temp	Min. Temp
	(mm)	( $^{\circ}$ C)	( $^{\circ}$ C)
08/06/2019	039	29.0	09.0
09/06/2019	061	31.0	08.0
10/06/2019	007	27.0	09.0

### **Weather forecast valid up to 16<sup>th</sup> June 2019**

- Probability of light rainfall
- Max temp may be varying from 27-29 $^{\circ}$ C, whereas, Min temp may vary from 18-19 $^{\circ}$ C
- Sky will remain generally cloudy
- Max RH is likely to be 90-93 %, whereas, Min RH may vary from 78-85 %
- Wind speed may likely vary from 3-4 km/hr.
- Wind direction may blow from south easterly to south westerly
- Weekly cumulative rainfall=54 mm

## Value Added forecast for EAST-DISTRICT for next five days

Parameter/Date	12/06/2019	13/06/2019	14/06/2019	15/06/2019	16/06/2019
Rainfall (mm)	Light rainfall	Light rainfall	Light rainfall	Light rainfall	Light rainfall
Max Temp ( $^{\circ}$ C)	21	22	23	23	22
Min Temp ( $^{\circ}$ C)	17	17	17	17	17
Sky condition	Generally cloudy	Generally cloudy	Generally cloudy	Generally cloudy	Generally cloudy
Max RH (%)	93	92	90	91	93
Min RH (%)	87	87	84	85	88
Wind Speed (Kmph)	4	4	2	2	3
Wind Direction (deg)	N	N	SW	E	E

Northerly- **N**, North-Easterly- **N-E**, Easterly- **E**, South-Easterly- **S-E**, Southerly- **S**, South-Westerly- **S-W**, Westerly-**W**, North-westerly- **N-W**.

Weather for preceding week			
Date	Rainfall	Max. Temp	Min. Temp
	(mm)	( $^{\circ}$ C)	( $^{\circ}$ C)
08/06/2019	002	23.2	17.7
09/06/2019	073	21.2	17.0
10/06/2019	000	21.6	16.7

### Weather forecast valid up to 16<sup>th</sup> June 2019

- Probability of light rainfall
- Max temp may be varying from 21-23 $^{\circ}$ C, whereas, Min temp may vary from 0-17 $^{\circ}$ C
- Sky will remain generally cloudy
- Max RH is likely to be 90-93 %, whereas, Min RH may vary from 84-87 %
- Wind speed may likely vary from 2-4 km/hr.
- Wind direction may blow from Northerly to southwesterly and finally easterly
- Weekly cumulative rainfall= 52 mm
- **HEAVY RAIN VERY LIKELY TO OCCUR AT ONE OR TWO PLACES OVER EAST SIKKIM ON SATURDAY**

## **Value Added forecast for SOUTH-DISTRICT for next five days**

Parameter/Date	12/06/2019	13/06/2019	14/06/2019	15/06/2019	16/06/2019
Rainfall (mm)	Light rainfall	Light rainfall	Light rainfall	Light rainfall	Light rainfall
Max Temp ( $^{\circ}\text{C}$ )	28	28	29	28	26
Min Temp ( $^{\circ}\text{C}$ )	18	19	18	18	17
Sky condition	Generally cloudy	Generally cloudy	Partially clear	Generally cloudy	Generally cloudy
Max RH (%)	91	90	90	91	92
Min RH (%)	75	72	72	75	80
Wind Speed (Kmph)	4	4	2	2	3
Wind Direction (deg)	N	N	N	N	E

Northerly- **N**, North-Easterly- **N-E**, Easterly- **E**, South-Easterly- **S-E**, Southerly- **S**, South-Westerly- **S-W**, Westerly- **W**, North-westerly- **N-W**.

Weather for preceding week			
Date	Rainfall	Max. Temp	Min. Temp
	(mm)	( $^{\circ}\text{C}$ )	( $^{\circ}\text{C}$ )
08/06/2019	000	28.0	13.5
09/06/2019	002	24.0	14.0
10/06/2019	000	27.5	11.0

### **Weather forecast valid up to 16<sup>th</sup> June 2019**

- There will be chances of light rainfall
- Max temp may be varying from 26-28 $^{\circ}\text{C}$ , whereas, Min temp may vary from 17-19 $^{\circ}\text{C}$
- Sky will remain generally cloudy
- Max RH is likely to be 90-92%, whereas, Min RH may var from 72-80%
- Wind speed may likely vary from 2-4 km/hr.
- Wind direction may blow from Northerly to easterly
- Weekly cumulative rainfall= 25 mm

## Value Added forecast for WEST-DISTRICT for next five days

Parameter/Date	12/06/2019	13/06/2019	14/06/2019	15/06/2019	16/06/2019
Rainfall (mm)	Light rainfall	Light rainfall	Light rainfall	Light rainfall	Light rainfall
Max Temp ( $^{\circ}\text{C}$ )	25	25	25	24	22
Min Temp ( $^{\circ}\text{C}$ )	17	18	17	17	17
Sky condition	Generally cloudy	Generally cloudy	Generally cloudy	Generally cloudy	Generally cloudy
Max RH (%)	93	92	90	92	93
Min RH (%)	87	85	80	82	85
Wind Speed (Kmph)	4	3	3	2	2
Wind Direction (deg)	N	N	N	S	S

Northerly- **N**, North-Easterly- **N-E**, Easterly- **E**, South-Easterly- **S-E**, Southerly- **S**, South-Westerly- **S-W**, Westerly- **W**, North-westerly- **N-W**.

Weather for preceding week			
Date	Rainfall	Max. Temp	Min. Temp
	(mm)	( $^{\circ}\text{C}$ )	( $^{\circ}\text{C}$ )
08/06/2019	003	25.0	18.0
09/06/2019	017	22.5	17.9
10/06/2019	N/A	24.6	16.9


### Weather forecast valid up to 16<sup>th</sup> June 2019


- Probability of light rainfall
- Max temp may be varying from 22-25 $^{\circ}\text{C}$ , whereas, Min temp may vary from 17-18 $^{\circ}\text{C}$
- Sky will remain partially clear
- Max RH is likely to be 90-93%, whereas, Min RH may var from 80-87 %
- Wind speed may likely vary from 2-4 km/hr.
- Wind direction may blow from northerly to southerly
- Weekly cumulative rainfall= 26 mm

## AGRO-METEOREOLOGICAL ADVISORIES

### General Advisories for all the crops/ livestock

- ➡ Bunding at terrace should be done to reduce nutrient losses due to heavy rainfall
- ➡ Keep the field ready for paddy transplanting
- ➡ *Jalkund* should be dug out for rain water harvesting.
- ➡ Spraying of bio pesticides (neem based formulation 1500 ppm @5ml/lit. and copper oxy chloride 50%WP @ 2.5g/lit.) at weekly interval for insect pest and diseases.
- ➡ Regular supplementation of vitamins and mineral mixture to the livestock to improve the productive and reproductive performance of animals.
- ➡ Mulching animals should be feed 70-80 ml Calcium daily for better milk yield and good health


Name of the crop/Animal	Stage	Cultural practices/ Pest/ Diseases	Agro-Met Advisories
<b><i>Agricultural and Horticultural crops:</i></b>			
Maize	Knee height stage	Army worm	<ul style="list-style-type: none"><li>◆ Field should be weed free without damaging the main crop while uprooting the weeds.</li><li>◆ Earthing up should be done.</li><li>◆ Apply bio fertilizers @25 kg/ha and vermicompost @1.5 t/ha.</li><li>◆ Two foliar spray of neem based formulation (1500ppm) @ 0.5% or 5 ml/lit. of water at weekly interval</li><li>◆ Avoid weeding during tasseling stage</li><li>◆ Keep drainage facilities in field</li></ul>
			
Rice	Nursery preparation		<ul style="list-style-type: none"><li>◆ 1000 sq. m nursery area for planting one hectare of land is sufficient</li><li>◆ Well decomposed FYM should be applied 2-3 days before sowing @10 q/1000 sq. m</li><li>◆ In addition <i>Azospirillum</i> may be applied @2kg/1000 sq. m area.</li><li>◆ Seed rate @ 2.5-3.0 kg for 100 sq. m</li></ul>

			<p>of area is sufficient for one hectare transplanting area</p> <ul style="list-style-type: none"> <li>Seed bed should be covered with thin layer of soil or compost immediate after sowing.</li> </ul>
Ginger/ Turmeric	Mulching		<ul style="list-style-type: none"> <li>Apply bio mulch @10 t/ha to cover the ridges and furrows of the field</li> </ul>
Large cardamom	Planting		<ul style="list-style-type: none"> <li>A 2 years old nursery suckers should be planted in the main field</li> <li>A spacing of 1.8×1.8 m<sup>2</sup> should be maintained.</li> <li>Young white coloured roots should not be destroy while planting, while old roots should trimmed out.</li> </ul>
Early kharif vegetables	Vegetative growth		<ul style="list-style-type: none"> <li>Weeding and intercultural operation should be done</li> </ul>
Tomato/Red cherry pepper/Brinjal	Vegetative	Blight	<ul style="list-style-type: none"> <li>Plants should be keep weed free and avoid water stagnation</li> <li>Spraying of COC @ 2-3 ml/lit. at weekly interval</li> <li>Five spray of neem based formulation 1500 ppm @ 5 ml/1 lit. of weekly interval for controlling of <i>Aphids</i></li> </ul>
Sikkim Mandarin	Planting/fruiting		<ul style="list-style-type: none"> <li>Keep the orchard weed free</li> <li>Digging the pit of 3 cubic feet for transplanting new saplings</li> <li>Top soil of the pit should be mixed with FYM @20 kg/pit</li> </ul>

### *Animal Sciences and livestock management*

Tibetan Sheep			<ul style="list-style-type: none"> <li>Feeding of concentrate feed along with mineral mixture and salt.</li> <li>Hay feeding is recommended.</li> </ul>
Yak			<ul style="list-style-type: none"> <li>Feeding of concentrate feed along with mineral mixture and salt.</li> <li>Hay feeding is recommended.</li> <li>Trimming of hair is recommended during summer season</li> </ul>
Sheep and Goat			<ul style="list-style-type: none"> <li>Farmers are advised to look for heat sign especially during early morning or late evening and ensure breeding of the dairy cattle within 12-18 hours after onset of heat symptoms</li> <li>Breeding of the sheep/goat should be</li> </ul>



			<p>done 24-30 hr after onset of heat.</p> <ul style="list-style-type: none"> <li>◆ Feeding of concentrate feed along with jaggery, mineral mixture and salt is recommended.</li> <li>◆ Periodic application of fly repellents and/or netting of dung pit is recommended.</li> </ul>
Cattle			<ul style="list-style-type: none"> <li>◆ Balanced feeding of dairy animals and allow calf suckling immediately after parturition is recommended. Colostrum (first three days milk) feeding to new born calf for first three days of life should be ensured.</li> <li>◆ Full hand milking should be practiced.</li> <li>◆ Frequent incomplete milking at interval of 4hrs should be practiced after parturition for minimum 1 week. Later on, complete milking in subsequent day is recommended.</li> </ul>
Poultry		Coccidiosis, Ranikhet disease	<ul style="list-style-type: none"> <li>◆ 16 hrs of light (natural and electrical) should be provided to adult birds for optimum egg production.</li> <li>◆ Frequent raking and liming of deep litter materials is recommended.</li> <li>◆ Inclusion of turmeric powder @ 10g/kg in poultry feed for prevention of coccidiosis.</li> <li>◆ Maintenance of brooder temperature for chicks with the help of electrical bulbs for initial one month.</li> <li>◆ Ranikhet vaccination at 5-7 days and at 28-30 days of age is highly recommended.</li> <li>◆ Calcium/shell grit and multi vitamin supplementation is strongly recommended to optimize egg production.</li> <li>◆ Occasional spraying of ectoparasiticides viz., deltamethrin/cypermethrin @ 1% v/v in water is recommended.</li> </ul>
Pig	All stages	Swine fever	<ul style="list-style-type: none"> <li>◆ Keep floor dry to avoid skin diseases.</li> <li>◆ Weaning is recommended at the age of 8 weeks for crossbreds and 10 weeks for indigenous pigs.</li> </ul>



			<ul style="list-style-type: none"> <li>Swine fever vaccine at the age of 3 months is recommended.</li> <li>Critical heat detection in early morning and late evening is recommended.</li> <li>Farmers can incorporate low cost locally available feed resources (60% for feeding Pigs to reduce the cost of feed.</li> </ul>
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*Agro-Met Advisory member of ICAR-NOFRI and KVK- East Sikkim*

Name	Designation	Department
<b>Dr. R. K. Avasthe</b>	<b>Joint Director</b>	<b>Soil Science</b>
<i>Dr. Raghavendra Singh</i>	Senior scientist and Head (I/C)	Agronomy
<i>Dr. P. K. Pathak</i>	SMS	Animal science
<i>Dr. J.K. Singh</i>	SMS	Plant Breeding
<i>Dr. Manoj Kumar</i>	SMS	Agronomy
<i>Sh. Boniface Lepcha</i>	SMS	Horticulture
<i>Sh. Santanu Das</i>	SMS	Agril. Meteorology
<i>Miss Tirtha Kumari Chettri</i>	Metrological observer	Biochemistry