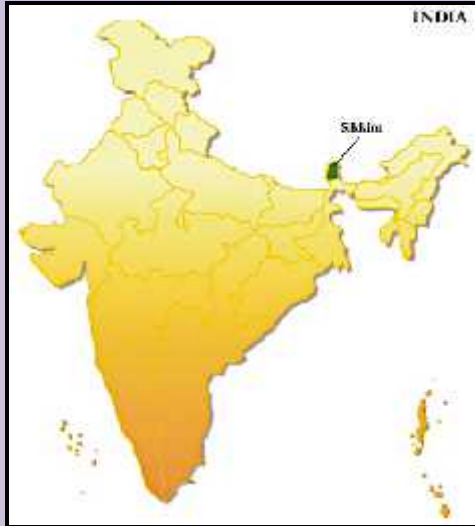




**STATE COMPOSITE AGRO-MET ADVISORY
BULLETIN FOR THE STATE OF SIKKIM
PERIOD: 6th JULY to 10th JULY 2019**



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



ISSUED ON 5th July 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

Issued by: Santanu Das, SMS (Agril. Meteorology), ICAR-KVK, East Sikkim, Ranipool

Value Added forecast for NORTH-DISTRICT for next five days

Parameter/Date	06/07/2019	07/07/2019	08/07/2019	09/07/2019	10/07/2019
Rainfall (mm)	Light rainfall	Light rainfall	Light rainfall	Light rainfall	Light rainfall
Max Temp (⁰ C)	32	31	30	27	27
Min Temp (⁰ C)	22	21	20	19	19
Sky condition	Generally cloudy	Generally cloudy	Overcast	Overcast	Overcast
Max RH (%)	90	90	93	93	93
Min RH (%)	85	85	89	89	89
Wind Speed (Kmph)	4	3	3	4	4
Wind Direction (deg)	SE	SE	E	SE	SE

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)	(⁰ C)	(⁰ C)
02/7/2019	012	N/A	N/A
03/7/2019	000	31.4	21.2
04/7/2019	000	30.8	21.5

Weather forecast valid up to 10th July 2019

- Probability of light rainfall
- Max temp may be varying from 27-31°C, whereas, Min temp may vary from 19-22°C
- Sky will remain generally cloudy
- Max RH is likely to be 90-93 %, whereas, Min RH may vary from 85-89 %
- Wind speed may likely vary from 3-4 km/hr.
- Wind direction may blow from southeasterly to southerly and again southeasterly
- Weekly cumulative rainfall=58 mm
- **Heavy rain may occur on TUESDAY and WEDNESDAY**

Value Added forecast for EAST-DISTRICT for next five days

Parameter/Date	06/07/2019	07/07/2019	08/07/2019	09/07/2019	10/07/2019
Rainfall (mm)	Light rainfall	Light rainfall	Light rainfall	Light rainfall	Light rainfall
Max Temp (°C)	24	23	22	21	21
Min Temp (°C)	19	19	18	18	18
Sky condition	Overcast	Generally cloudy	Generally cloudy	Overcast	Overcast
Max RH (%)	92	90	90	92	92
Min RH (%)	88	87	87	88	88
Wind Speed (Kmph)	2	3	2	2	2
Wind Direction (deg)	S	NE	NE	NE	NE

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 (mm)	Max. Temp (°C)	Min. Temp (°C)
02/7/2019	016	23.2	19.0
03/7/2019	005	22.4	18.7
04/7/2019	001	23.8	19.0

Weather forecast valid up to 10th July 2019

- Probability of Light rainfall
- Max temp may be varying from 21-24°C, whereas, Min temp may vary from 18-19°C
- Sky will remain generally cloudy
- Max RH is likely to be 90-92 %, whereas, Min RH may vary from 87-88 %
- Wind speed may likely vary from 2-3 km/hr.
- Wind direction may blow from southerly to northeasterly
- Weekly cumulative rainfall= 56 mm
- **Heavy rain may occur on WEDNESDAY**

Value Added forecast for SOUTH-DISTRICT for next five days

Parameter/Date	06/07/2019	07/07/2019	08/07/2019	09/07/2019	10/07/2019
Rainfall (mm)	Light rainfall	Light rainfall	Light rainfall	Light rainfall	Light rainfall
Max Temp (°C)	28	27	26	25	25
Min Temp (°C)	19	19	18	18	18
Sky condition	Generally cloudy	Generally cloudy	Generally cloudy	Generally cloudy	Generally cloudy
Max RH (%)	89	89	90	92	92
Min RH (%)	84	84	85	87	87
Wind Speed (Kmph)	5	3	2	4	4
Wind Direction (deg)	S	NE	NE	N	N

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 (mm)	Max. Temp (°C)	Min. Temp (°C)
02/7/2019	002	27.5	15.0
03/7/2019	000	28.0	12.0
04/7/2019	000	29.0	18.5

Weather forecast valid up to 10th July 2019

- There will be chances of light rainfall
- Max temp may be varying from 25-28°C, whereas, Min temp may vary from 18-19°C
- Sky will remain generally cloudy
- Max RH is likely to be 89-92 %, whereas, Min RH may var from 84-87 %
- Wind speed may likely vary from 2-4 km/hr.
- Wind direction may blow from southerly to northeasterly and northerly
- Weekly cumulative rainfall= 38 mm
- **Heavy rain may occur on Saturday**

Value Added forecast for WEST-DISTRICT for next five days

Parameter/Date	06/07/2019	07/07/2019	08/07/2019	09/07/2019	10/07/2019
Rainfall (mm)	Light rainfall	Light rainfall	Light rainfall	Light rainfall	Light rainfall
Max Temp (°C)	27	26	25	24	24
Min Temp (°C)	19	19	18	17	17
Sky condition	Generally cloudy	Generally cloudy	Generally cloudy	Overcast	Overcast
Max RH (%)	90	91	91	93	93
Min RH (%)	86	87	87	89	89
Wind Speed (Kmph)	5	4	3	4	4
Wind Direction (deg)	N	S	N	S	NW

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)	(°C)	(°C)
02/7/2019	N/A	22.0	18.7
03/7/2019	001	26.1	18.5
04/7/2019	000	27.3	18.0


Weather forecast valid up to 10th July 2019


- Probability of light rainfall
- Max temp may be varying from 24-27°C, whereas, Min temp may vary from 17-19°C
- Sky will remain generally cloudy
- Max RH is likely to be 90-93%, whereas, Min RH may var from 86-89 %
- Wind speed may likely vary from 4-5 km/hr.
- Wind direction may blow from northerly to southerly and finally northwesterly
- Weekly cumulative rainfall= 49 mm

AGRO-METEOROLOGICAL 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
- ➔ Crop field should be free from weed, during flowering stage
- ➔ *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.
- ➔ Milching animals should be feed 70-80 ml Calcium daily for better milk yield and good health
- ➔ Vaccinate cattle, goat and pig against Foot and Mouth Diseases (FMD).

Name of the crop/Animal	Stage	Cultural practices/ Pest/ Diseases	Agro-Met Advisories
<i>Agricultural and Horticultural crops:</i>			
Maize	Knee height stage	Army worm	<ul style="list-style-type: none"> ◆ Field should be weed free without damaging the main crop while uprooting the weeds. ◆ Two foliar spray of neem based formulation (1500ppm) @ 0.5% or 5 ml/lit. of water at weekly interval ◆ Avoid weeding during tasseling stage ◆ Keep drainage facilities in field ◆ Regular inspection of field for insect pest infestation ◆ The harvested cobs should be well dry at moisture content at 10-12 % ◆ Use bird scarer for the control of birds
			
Rice	Main field preparation and transplanting		<ul style="list-style-type: none"> ◆ Start field preparation for paddy transplantation through repairing old bunds by maintaining 20-30 cm height in lowland situation

			<ul style="list-style-type: none"> ◆ As sufficient moisture is available due to moderate/heavy rain in the previous days, farmers should start ploughing of their main field. ◆ Uprooting of 25-30 days old rice seedlings may be done depending on availability of water for transplantation ◆ Seedling of Main season rice can be raised up to first week of July and can be transplanted within 3rd week of July (for late transplanting). ◆ Application of FYM 10-15 t/ha or vermicompost @ 3-6 t/ha either alone or in combination should be applied at 10 days before transplanting ◆ Green manuring with <i>dhaincha</i> (<i>susbania aculeata</i>) can be incorporated
Ginger/ Turmeric	Tillering stage		<ul style="list-style-type: none"> ◆ Remove the weeds without breaking the sprouted ginger tillers. ◆ Drench the ginger field with cow urine at 1:4 (urine: water) ratio or fresh cow dung slurry at fortnightly interval ◆ Start spraying copper oxy chloride @ 0.25 % at weekly interval
Large cardamom	Planting		<ul style="list-style-type: none"> ◆ A 2 years old nursery suckers should be planted in the main field ◆ A spacing of 1.8×1.8 m² should be maintained. ◆ Young white coloured roots should not be destroy while planting, while old roots should trimmed out.
Early kharif vegetables	Vegetative growth		<ul style="list-style-type: none"> ◆ Weeding and intercultural operation should be done
Red cherry pepper/Brinjal	Vegetative	Blight	<ul style="list-style-type: none"> ◆ Plants should be keep weed free and avoid water stagnation ◆ Spraying of COC @ 2-3 ml/lit. at weekly interval ◆ Five spray of neem based formulation 1500 ppm @ 5 ml/1 lit. of weekly interval for controlling of <i>Aphids</i>

Cole crops/ Tomato	Nursery preparation	<ul style="list-style-type: none"> ◆ Start preparation of nursery beds for early and late kharif tomato ◆ Use early varieties of cabbage (early ball) cauliflower (white excel), broccoli (Aishwarya) and tomato (varieties Arka rakshak, Arka samrat, and All rounder ◆ Apply FYM 2 kg/m², neem cake @ 200 g/m², Trichoderma@ 1 % should be incorporated in soil during nursery bed preparation. ◆ Nursery bed should be prepared inside the poly tunnel/rain shelter system.
Sikkim Mandarin	Planting/fruiting	<ul style="list-style-type: none"> ◆ Keep the orchard weed free ◆ Digging the pit of 3 cubic feet for transplanting new saplings ◆ Top soil of the pit should be mixed with FYM @20 kg/pit
<i>Animal Sciences and livestock management</i>		
Tibetan Sheep		<ul style="list-style-type: none"> ◆ Feeding of concentrate feed along with mineral mixture and salt. ◆ Hay feeding is recommended.
Yak		<ul style="list-style-type: none"> ◆ Feeding of concentrate feed along with mineral mixture and salt. ◆ Hay feeding is recommended. ◆ Trimming of hair is recommended during summer season
Sheep and Goat		<ul style="list-style-type: none"> ◆ 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 ◆ Breeding of the sheep/goat should be done 24-30 hr. after onset of heat. ◆ Feeding of concentrate feed along with jaggery, mineral mixture and salt is recommended. ◆ Periodic application of fly repellents and/or netting of dung pit is recommended.
Cattle		<ul style="list-style-type: none"> ◆ Balanced feeding of dairy animals and allow calf suckling immediately after parturition is recommended. Colostrum (first three days milk)

			<p>feeding to new born calf for first three days of life should be ensured.</p> <ul style="list-style-type: none"> ◆ Full hand milking should be practiced. ◆ 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.
Poultry		Coccidiosis, Ranikhet disease	<ul style="list-style-type: none"> ◆ 16 hrs of light (natural and electrical) should be provided to adult birds for optimum egg production. ◆ Frequent raking and liming of deep litter materials is recommended. ◆ Inclusion of turmeric powder @ 10g/kg in poultry feed for prevention of coccidiosis. ◆ Maintenance of brooder temperature for chicks with the help of electrical bulbs for initial one month. ◆ Ranikhet vaccination for poultry at 5-7 days and at 28-30 days of age is highly recommended. ◆ Calcium/shell grit and multi vitamin supplementation is strongly recommended to optimize egg production. ◆ Occasional spraying of ectoparasiticides <i>viz.</i>, deltamethrin/cypermethrin @ 1% v/v in water is recommended.
Pig	All stages	Swine fever	<ul style="list-style-type: none"> ◆ Keep floor dry to avoid skin diseases. ◆ Weaning is recommended at the age of 8 weeks for crossbreds and 10 weeks for indigenous pigs. ◆ Swine fever vaccine at the age of 3 months is recommended. ◆ Critical heat detection in early morning and late evening is recommended. ◆ Farmers can incorporate low cost locally available feed resources (60%) for feeding pigs to reduce the cost of feeding

Agro-Met Advisory member of ICAR-NOFRI and KVK- East Sikkim

Name	Designation	Department
<i>Dr. R. K. Avasthe</i>	Joint Director	Soil Science
<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>	Met. Observer	Biochemistry