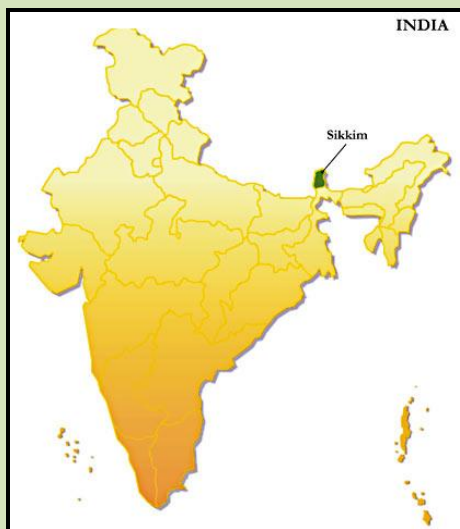




# STATE COMPOSITE AGRO-MET ADVISORY BULLETIN FOR THE STATE OF SIKKIM PERIOD: 05<sup>TH</sup> JANUARY to 07<sup>TH</sup> JANUARY'2016



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



**ISSUED ON TUESDAY 05<sup>TH</sup> JANUARY'2016**

## **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

Mangan (PTO)				North Sikkim Forecast					
Date	Rainfall (mm)	Max. Temp (°C)	Min. Temp (°C)	Day → Parameter ↓	Day 1	Day 2	Day 3	Day 4	Day 5
				Sky Condition	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy
1/1/2016	000	20.2	08.5	Rainfall	No rain	No rain	No rain	No rain	No rain
2/1/2016	000	20.2	08.5	Wind (Speed/ Dir)	3Km/Hr (WSW)	3Km/Hr (WSW)	3Km/Hr (SW)	3Km/Hr (SW)	4Km/Hr (NW)
3/1/2016	000	20.2	08.5	Temperature (Min-Max)	9 - 20°C	9 - 20°C	9 - 20°C	8 - 19°C	8 - 19°C
4/1/2016	000	20.2	08.5	RH (Min-Max)	53 - 85%	50 - 78%	55 - 78%	55 - 75%	58 - 85%

Gangtok				East Sikkim Forecast					
Date	Rainfall (mm)	Max. Temp (°C)	Min. Temp (°C)	Day → Parameter ↓	Day 1	Day 2	Day 3	Day 4	Day 5
				Sky Condition	Partly Cloudy	Partly Cloudy	Mainly Clear	Partly Cloudy	Partly Cloudy
1/1/2016	000	14.8	06.6	Rainfall	No rain	No rain	No rain	No rain	No rain
2/1/2016	000	14.8	06.6	Wind (Speed/ Dir)	2Km/Hr (SSE)	2Km/Hr (W)	2Km/Hr (WSW)	3Km/Hr (WNW)	3Km/Hr (SW)
3/1/2016	000	14.8	06.6	Temperature (Min-Max)	6 - 14°C	6 - 14°C	6 - 14°C	6 - 13°C	5 - 12°C
4/1/2016	000	14.8	06.6	RH (Min-Max)	57 - 88%	56 - 79%	53 - 76%	54 - 73%	49 - 74%

Namthang				South Sikkim Forecast					
Date	Rainfall (mm)	Max. Temp (°C)	Min. Temp (°C)	Day → Parameter ↓	Day 1	Day 2	Day 3	Day 4	Day 5
				Sky Condition	Partly Cloudy	Partly Cloudy	Mainly Clear	Mainly Clear	Partly Cloudy
1/1/2016	000	16.0	07.5	Rainfall	No rain	No rain	No rain	No rain	No rain
2/1/2016	000	16.0	07.5	Wind (Speed/ Dir)	2Km/Hr (S)	4Km/Hr (W)	3Km/Hr (WSW)	4Km/Hr (W)	3Km/Hr (W)
3/1/2016	000	16.0	07.5	Temperature (Min-Max)	8 - 17°C	8 - 18°C	8 - 18°C	7 - 117°C	7 - 16°C
4/1/2016	000	16.0	07.5	RH (Min-Max)	56 - 79%	52 - 77%	49 - 75%	50 - 72%	47 - 75%


Gyalshing (AWS)				West Sikkim Forecast					
Date	Rainfall (mm)	Max. Temp (°C)	Min. Temp (°C)	Day → Parameter ↓	Day 1	Day 2	Day 3	Day 4	Day 5
				Sky Condition	Partly Cloudy	Partly Cloudy	Mainly Clear	Mainly Clear	Partly Cloudy
1/1/2016	000	17.7	07.3	Rainfall	No rain	No rain	No rain	No rain	No rain
2/1/2016	000	17.7	07.3	Wind (Speed/ Dir)	2Km/Hr (SE)	3Km/Hr (WSW)	3Km/Hr (SW)	3Km/Hr (WSW)	2Km/Hr (NW)
3/1/2016	000	17.7	07.3	Temperature (Min-Max)	6 - 17°C	6 - 17°C	6 - 17°C	5 - 16°C	5 - 15°C
4/1/2016	000	17.7	07.3	RH (Min-Max)	60 - 85%	53 - 80%	45 - 77%	47 - 70%	45 - 73%



## **Part II**

### **AGRO-METEOREOLOGICAL ADVISORIES**

#### **General Advisories for all the crops/ livestock**

- ❖ Spraying of plant protection biopesticides on bright sunny day for insect and disease management is recommended.
- ❖ Mulching should be done through locally available biomass to conserve soil moisture for *rabi* crops.
- ❖ *Jalkund* should be covered with thatch to prevent evaporation losses.
- ❖ Vermicompost pits should be covered with gunny bags / paddy straw/ dry forest litter to regulate the temperature.
- ❖ Avoid feeding of damp and foul smelling feed to all livestock and poultry.
- ❖ De-worming with Fenbendazole @ 10 mg / kg body weight.
- ❖ Protect animals from cold by providing protective cover/ house and light.

Name of the crop/Animal	Stage	Pest/ Disease	Agro-Met Advisories
<b>Crops</b>			
Buckwheat	Thinning/weeding/flowering		<ul style="list-style-type: none"> <li>❖ Thinning (removal of extra plants) and weeding should be done 10-15 days after sowing.</li> </ul>
Mustard/ Torla	Thinning/weeding/Flowering	Aphid	<ul style="list-style-type: none"> <li>❖ Thinning (removal of extra plants) and weeding should be done 10-15 days after sowing.</li> <li>❖ One irrigation should be provided at the time of pre-flowering.</li> <li>❖ For management of aphid, spray petroleum agro spray @ 10 ml/l or neem oil (1500ppm) @ 4ml/l.</li> </ul>
Vegetable pea/ Field pea	Flowering/Fruiting/Picking		<ul style="list-style-type: none"> <li>❖ Soil moisture should be maintained for good growth and yield.</li> <li>❖ If sources are available one irrigation is recommended.</li> <li>❖ Cautious picking should be done to avoid plant damage.</li> </ul>

Tomato	Flowering/ Fruiting	Late Blight 	<ul style="list-style-type: none"> <li>◆ Removal of infected leaves/ plant and drenching/ spray with copper oxychloride @ 0.25 % or Bordeaux mixture @ 1%.</li> <li>◆ Harvesting of mature green tomato should be done for distant market and pinkish/ reddish for local market.</li> </ul>
Winter vegetables (Cole crops)	Vegetative		<ul style="list-style-type: none"> <li>◆ Regular watering and weeding in main field is recommended.</li> <li>◆ Earthing up should be done.</li> <li>◆ Regular monitoring for pest and disease incidence and collection and destruction of egg, larva, pupa and adult.</li> </ul>
Large cardamom	Post harvest crop management		<ul style="list-style-type: none"> <li>◆ Regular watering should be done at 15 – 30 days intervals.</li> <li>◆ Regular monitoring for pest and disease incidence.</li> <li>◆ Shade management with the proper lopping of trees.</li> </ul>
Ginger	Harvesting Seed		<ul style="list-style-type: none"> <li>◆ Identify healthy plants for seed rhizomes.</li> <li>◆ Care should be taken during harvesting to avoid the mechanical injury in the rhizome.</li> </ul>
Sikkim Mandarin	Harvesting/Storage		<ul style="list-style-type: none"> <li>◆ Collection of infested dropped fruit and buried in to soil.</li> <li>◆ Harvesting should be done along with twig with two leaves.</li> <li>◆ Diseased and senile branches should be removed.</li> <li>◆ On tree storage should be done for prolonged harvesting of fruits.</li> <li>◆ Manuring with FYM @ 10-15 kg/plant should be done.</li> </ul>
Kiwi fruit	Dormant		<ul style="list-style-type: none"> <li>◆ Pruning of unwanted vegetative growth should be done.</li> <li>◆ Manuring with FYM @ 10-15 kg/plant should be done.</li> </ul>
<b>Animal Sciences</b>			
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> </ul>

			<ul style="list-style-type: none"> <li>◆ Hay feeding is recommended.</li> </ul>
Cattle, 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 animal after 12 hr of 1<sup>st</sup> heat observe.</li> <li>◆ Feeding of concentrate feed along with jaggery, mineral mixture and salt.</li> <li>◆ Periodic application of fly repellents and/ or netting of dung pit are recommended.</li> </ul>
Cattle			<ul style="list-style-type: none"> <li>◆ Balanced feeding of dairy animals and allow calf suckling immediately after parturition.</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. Afterwards complete milking in a 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.</li> <li>◆ Inclusion of turmeric powder @ 10g/kg 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<sup>th</sup> day and at 30<sup>th</sup> day of age.</li> <li>◆ Calcium/shell grit and multi vitamin supplementation is strongly recommended to optimize egg production.</li> <li>◆ Spraying of ectoparasiticides viz., deltamethrin/cypermethrin @ 1% v/v in water.</li> </ul>
Pig	All stages	Swine fever	<ul style="list-style-type: none"> <li>◆ Keep floor dry to avoid skin diseases.</li> </ul>

			<ul style="list-style-type: none"> <li>◆ Swine fever vaccine at the age of 8-10 week is recommended.</li> <li>◆ Critical heat detection in early morning and late evening is recommended.</li> <li>◆ Feed 5-10% green fodder of their diet.</li> </ul>
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Mr. SHAON KUMAR DAS (Scientist, Agril Chemistry/Soil Science)

Nodal Officer (Agromet, ICAR)

**Agro-Met Advisory member of ICAR, Sikkim Centre**

Name	Designation	Department
1. Dr. R. K. Avasthe	Joint Director	Soil Science
2. Dr. Homeswar Kalita	Principal Scientist	Entomology
3. Dr. Ashish Yadav	Senior Scientist	Horticulture
4. Dr. Raghavendra Singh	Senior Scientist	Agronomy
5. Dr. Rafiqul Islam	Senior Scientist	Animal Reproduction
6. Dr. Matber Singh	Scientist, SS	Agroforestry
7. Dr. R. Gopi	Scientist, SS	Plant Pathology
8. Dr. Subhash Babu	Scientist	Agronomy
9. Mr. Shaon Kr Das	Scientist	Agril. Chemistry/ Soil Sc.
10. Dr. Brijesh Kumar	Scientist	Animal Reproduction
11. Dr. Mahak Singh	Scientist	Animal Reproduction
12. Mr. Boniface Lepcha	Subject Matter Specialist	Horticulture