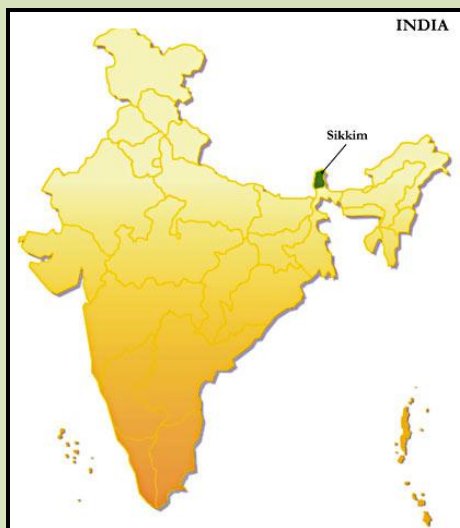




# STATE COMPOSITE AGRO-MET ADVISORY BULLETIN FOR THE STATE OF SIKKIM PERIOD: 17<sup>TH</sup> NOVEMBER to 19<sup>TH</sup> NOVEMBER'2015



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



**ISSUED ON TUESDAY 17<sup>TH</sup> NOVEMBER'2015**

## **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 Gyalshing
- 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	Generally Cloudy	Generally Cloudy	Partly Cloudy	Mainly Clear	Mainly Clear
13/11/2015	000	20.3	10.3	Rainfall	No rain	Very Light	No rain	No rain	No rain
14/11/2015	000	20.1	14.2	Wind (Speed/ Dir)	3Km/Hr (NW)	3Km/Hr (NW)	2Km/Hr (NNE)	2Km/Hr (NNW)	2Km/Hr (N)
15/11/2015	000	20.0	10.5	Temperature (Min-Max)	10 - 20°C	10 - 20°C	10 - 21°C	10 - 21°C	10 - 21°C
16/11/2015	001	18.2	10.3	RH (Min-Max)	58 - 84%	54 - 82%	52 - 80%	52 - 78%	50 - 78%

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	Generally Cloudy	Partly Cloudy	Mainly Clear	Mainly Clear
13/11/2015	000	18.3	09.1	Rainfall	No rain	Very Light	No rain	No rain	No rain
14/11/2015	000	15.3	10.7	Wind (Speed/ Dir)	3Km/Hr (NE)	3Km/Hr (NNE)	2Km/Hr (S)	2Km/Hr (S)	2Km/Hr (SSE)
15/11/2015	001	14.0	11.9	Temperature (Min-Max)	11 - 16°C	11 - 17°C	10 - 17°C	10 - 17°C	10 - 17°C
16/11/2015	003	15.4	11.9	RH (Min-Max)	65 - 85%	60 - 85%	50 - 80%	50 - 78%	50 - 78%

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	Generally Cloudy	Generally Cloudy	Partly Cloudy	Mainly Clear	Mainly Clear
13/11/2015	000	21.5	09.0	Rainfall	No rain	No rain	No rain	No rain	No rain
14/11/2015	000	21.0	11.0	Wind (Speed/ Dir)	3Km/Hr (NNW)	3Km/Hr (NW)	4Km/Hr (NE)	4Km/Hr (N)	3Km/Hr (SSW)
15/11/2015	025	25.0	14.0	Temperature (Min-Max)	13 - 21°C	13 - 21°C	13 - 22°C	13 - 22°C	13 - 22°C
16/11/2015	000	26.0	13.5	RH (Min-Max)	58 - 84%	54 - 82%	52 - 80%	52 - 78%	50 - 78%

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	Generally Cloudy	Generally Cloudy	Partly Cloudy	Mainly Clear	Mainly Clear
13/11/2015	000	20.8	09.5	Rainfall	No rain	Very Light	No rain	No rain	No rain
14/11/2015	000	17.6	11.7	Wind (Speed/ Dir)	3Km/Hr (NNW)	3Km/Hr (NNW)	5Km/Hr (NNE)	4Km/Hr (NNW)	3Km/Hr (SSW)
15/11/2015	000	16.8	11.1	Temperature (Min-Max)	12 - 17°C	12 - 17°C	11 - 19°C	11 - 19°C	11 - 19°C
16/11/2015	001	N/A	11.9	RH (Min-Max)	65 - 85%	60 - 85%	50 - 80%	50 - 80%	50 - 80%



## **Part II**



### **AGRO-METEOREOLOGICAL ADVISORIES**

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

- ❖ Preventive spray and soil drenching with copper oxychloride @2.5 g/l of water at 7-10 days intervals.
- ❖ Spraying of plant protection biopesticides on bright sunny day.
- ❖ Nursery should be raised for cole crops (cabbage, cauliflower, broccoli), raya saag etc.
- ❖ 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>			
Rice	Harvesting		<ul style="list-style-type: none"><li>❖ Birds scaring ribbon should be used for scaring the birds.</li><li>❖ Harvesting should be done on sunny day atleast 15 cm above the ground for moisture conservation and no till pea and mustard/ toria sowing.</li><li>❖ After sun drying harvested paddy is recommended to be stored at <math>\leq 14\%</math> moisture.</li></ul>
Rice bean	Pod formation	Legume pod borer	<ul style="list-style-type: none"><li>❖ Regular monitoring and proper staking should be done.</li></ul>
Black gram	Maturity/ Harvesting		<ul style="list-style-type: none"><li>❖ Periodic harvesting should be done when pod turns pale yellow colour.</li><li>❖ Harvested pods should be sun dried and stored at <math>&lt; 8\%</math> moisture level.</li></ul>
Buckwheat	Sowing		<ul style="list-style-type: none"><li>❖ After field preparation FYM @ 2t/ha and vermicompost @ 1t/ ha should be applied.</li><li>❖ Sowing should be done in line at the</li></ul>

Mustard/ Toria	Sowing		<p>spacing of 30x10cm.</p> <ul style="list-style-type: none"> <li>◆ After field preparation FYM @ 2t/ha and vermicompost @ 1t/ ha should be applied.</li> <li>◆ Sowing should be done in line at the spacing of 30x10cm.</li> <li>◆ Alternatively, sowing can also be done immediately after harvesting of rice under no till condition in between the rows (zero till).</li> </ul>
Vegetable pea/ Field pea	Sowing	 <p>No till pea</p>	<ul style="list-style-type: none"> <li>◆ Apply FYM @ 2t/ha and vermicompost @ 1t/ ha before sowing.</li> <li>◆ Sowing should be done in line at the spacing of 30-40x10cm.</li> <li>◆ Soil moisture should be maintained for proper germination.</li> <li>◆ Alternatively, sowing can also be done immediately after harvesting of rice under no till condition in between the rows (zero till).</li> </ul>
Tomato	Flowering/ Fruiting	<p>Late Blight</p> 	<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	Nursery/ Transplanting		<ul style="list-style-type: none"> <li>◆ Transplanting should be done in small pits filled with well decomposed FYM @ 2-2.5 kg/sqm., neem cake @ 200g/sqm. and <i>Trichoderma</i> @ 1-2 g/sqm should be mixed in soil before transplanting.</li> <li>◆ Nursery can be raised for early winter vegetables like cabbage, cauliflower, broccoli, raya saag etc.</li> <li>◆ Seed should be sown in moist soil in raised nursery bed of size 1x5m under protected condition.</li> <li>◆ FYM @ 2kg/ sqm, neem cake @ 200g/sqm, <i>Trichoderma</i> @ 2% should be incorporated in soil before sowing seed.</li> </ul>

			<ul style="list-style-type: none"> <li>◆ Regular watering in nursery is recommended.</li> </ul>
Dalley chilli/ Red Cherry pepper	Harvesting	Fruit fly 	<ul style="list-style-type: none"> <li>◆ Collection and destruction of infested dropped fruits.</li> <li>◆ Regular harvesting should be done to improve the yield.</li> </ul>
Large cardamom	Post harvest crop management		<ul style="list-style-type: none"> <li>◆ Removal and burying of blight infected leaves.</li> <li>◆ Weeding/ removal of infected tillers should be done.</li> <li>◆ Regular watering should be done at 10-15 days intervals.</li> <li>◆ Regular monitoring for pest and disease incidence.</li> <li>◆ Shade management with the proper lopping.</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	Fruit maturity/ Harvesting	Fruit drop 	<ul style="list-style-type: none"> <li>◆ Collection of infected dropped fruit and buried in to soil.</li> <li>◆ Regular monitoring for trunk borer infestation.</li> <li>◆ Harvesting should be done along with twig with two leaves.</li> <li>◆ Diseased and senile branches should be removed.</li> </ul>

### ***Animal Sciences***

Tibetan Sheep			<ul style="list-style-type: none"> <li>◆ Feeding of concentrate feed along with mineral mixture and salt.</li> </ul>
Yak			<ul style="list-style-type: none"> <li>◆ Feeding of concentrate feed along with mineral mixture and salt.</li> </ul>
Cattle, Sheep and Goat			<ul style="list-style-type: none"> <li>◆ Chances of coming into estrus so 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</li> </ul>

			<p>salt.</p> <ul style="list-style-type: none"> <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.</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.</li> </ul>
Poultry		Coccidiosis	<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 and multi vitamin supplementation is strongly recommended to optimize egg production.</li> <li>◆ Spraying of ectoparasiticide @ 1% deltamethrin/ cypermethrin.</li> </ul>
Pig	All stages	Swine fever	<ul style="list-style-type: none"> <li>◆ Keep floor dry to avoid skin diseases.</li> <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>