



# STATE COMPOSITE AGRO-MET ADVISORY BULLETIN FOR THE STATE OF SIKKIM PERIOD: 07<sup>th</sup> NOVEMBER – 10<sup>th</sup> NOVEMBER 2014



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



**ISSUED ON TUESDAY 07<sup>th</sup> NOVEMBER 2014 BY**

## **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 (AWS)				North Sikkim Forecast					
				Day → Parameter ↓	Day 1	Day 2	Day 3	Day 4	Day 5
Date	Rainfall (mm)	Max. Temp (°C)	Min. Temp (°C)	Sky Condition	Partly Cloudy	Partly Cloudy	Generally Cloudy	Partly Cloudy	Partly Cloudy
				Rainfall	No rain	No rain	Very Light	No rain	No rain
4-11-2014	000	23.4	14.4	Wind (Speed/ Dir)	2KT(SSE)	2KT(SW)	2KT(SW)	1KT(S)	1KT(S)
5-11-2014	000	21.1	13.3	Temperature (Min-Max)	13 - 24°C	13 - 24°C	13 - 23°C	13 - 23°C	13 - 23°C
6-11-2014	000	N/A	12.4	RH (Min-Max)	65 - 80%	68 - 85%	65 - 84%	62 - 80%	60 - 78%

Gangtok				East Sikkim Forecast					
				Day → Parameter ↓	Day 1	Day 2	Day 3	Day 4	Day 5
Date	Rainfall (mm)	Max. Temp (°C)	Min. Temp (°C)	Sky Condition	Partly Cloudy	Partly Cloudy	Generally Cloudy	Partly Cloudy	Partly Cloudy
				Rainfall	No rain	No rain	Very Light	No rain	No rain
4-11-2014	000	19.6	12.7	Wind (Speed/ Dir)	1KT(ENE)	2KT(SSE)	2KT(SSE)	1KT(ESE)	1KT(ESE)
5-11-2014	000	19.0	11.7	Temperature (Min-Max)	11 - 19°C	11 - 19°C	11 - 18°C	11 - 18°C	11 - 18°C
6-11-2014	000	18.8	10.5	RH (Min-Max)	62 - 79%	65 - 85%	60 - 82%	60 - 80%	58 - 80%

Namthang				South Sikkim Forecast					
				Day → Parameter ↓	Day 1	Day 2	Day 3	Day 4	Day 5
Date	Rainfall (mm)	Max. Temp (°C)	Min. Temp (°C)	Sky Condition	Partly Cloudy	Partly Cloudy	Generally Cloudy	Partly Cloudy	Partly Cloudy
				Rainfall	No rain	No rain	No rain	No rain	No rain
4-11-2014	000	23.0	12.0	Wind (Speed/ Dir)	2KT(E)	2KT(S)	2KT(SSW)	1KT(SE)	1KT(SE)
5-11-2014	000	22.5	13.5	Temperature (Min-Max)	12 - 23°C	12 - 23°C	12 - 23°C	12 - 23°C	12 - 23°C
6-11-2014	000	23.0	12.5	RH (Min-Max)	60 - 79%	64 - 85%	63 - 82%	60 - 80%	58 - 78%


Gyalshing (AWS)				West Sikkim Forecast					
				Day → Parameter ↓	Day 1	Day 2	Day 3	Day 4	Day 5
Date	Rainfall (mm)	Max. Temp (°C)	Min. Temp (°C)	Sky Condition	Partly Cloudy	Partly Cloudy	Generally Cloudy	Partly Cloudy	Partly Cloudy
				Rainfall	No rain	No rain	Very Light	No rain	No rain
4-11-2014	000	21.6	11.3	Wind (Speed/ Dir)	1KT(E)	2KT(SSW)	2KT(SW)	1KT(ESE)	1KT(SE)
5-11-2014	000	21.3	10.6	Temperature (Min-Max)	11 - 22°C	11 - 22°C	11 - 21°C	11 - 21°C	11 - 21°C
6-11-2014	000	N/A	10.1	RH (Min-Max)	53 - 80%	60 - 86%	59 - 84%	57 - 80%	56 - 78%

## **Part II**






### **AGRO-METEOREOLOGICAL ADVISORIES**

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

- ❖ Conservation of soil moisture through locally available biomass mulching in all the crops.
- ❖ Preventive spray and soil drenching with copper oxychloride @2.5 g/l of water at weekly intervals.
- ❖ Spraying of plant protection biopesticides in the evening.
- ❖ Field preparation for *Rabi* vegetable crops like cole crops, pea, leafy vegetables, tomato *etc* and fodder crops (oat/berseem).
- ❖ Water harvesting and storage in various structures like *Jalkund* is recommended for cultivation of *Rabi* crops.

Name of the crop/Animal	Stage	Pest/ Disease	Agro-Met Advisories
<b>Crops</b>			
Rice	Panicle initiation/ Grain filling/ maturity	❖ Blast of rice 	<ul style="list-style-type: none"> <li>❖ Maintain 2-3 cm water in the field where crop is in panicle initiation stage.</li> <li>❖ Drained out water from the field where crop is in maturity stage.</li> <li>❖ Spray copper oxychloride @2.5 g/l for rice blast.</li> <li>❖ Spraying of <i>Pseudomonas fluorescens</i> @ 0.2% for management of blast and sheath blight at weekly intervals.</li> <li>❖ Spray neem based formulation (1500ppm) @ 3ml per litre of water for controlling Gundhi bug.</li> <li>❖ Use of birds scaring ribbon for preventing bird's damage.</li> </ul>
Soybean	Grain filling /Pod maturity/ Harvesting stage	Leaf folder	<ul style="list-style-type: none"> <li>❖ Harvesting should be done when pod turns yellowish colour.</li> <li>❖ Spray neem based formulation (1500ppm) @ 3ml per litre of water for controlling leaf folder.</li> </ul>
Pahenlo dal /Kalo Dal	Flowering/ Pod formation		<ul style="list-style-type: none"> <li>❖ Spray neem based formulation (1500 ppm) @ 3ml per litre of water for controlling leaf feeding beetles.</li> </ul>

(urd bean)			<ul style="list-style-type: none"> <li>◆ Spray COC (0.25%) or Bordeaux mixture @ 1% at weekly intervals for the management of various leaf spot diseases.</li> </ul>
Finger millet	Flowering/ grain formation		<ul style="list-style-type: none"> <li>◆ Use of birds scaring ribbon for preventing bird's damage.</li> </ul>
Rapeseed and mustard	Sowing/ emergence		<ul style="list-style-type: none"> <li>◆ Field preparation for sowing of both the crops @ 4-5 kg seed/ha.</li> <li>◆ Seed treatment with <i>Trichoderma viride</i> / <i>T. harzianum</i> @ 4g/kg.</li> <li>◆ FYM application @ 5-10 t/ha and vermicompost @ 2 t/ha is recommended.</li> </ul>
Beans	Pod formation/ maturity	❖ Powdery mildew	<ul style="list-style-type: none"> <li>◆ Handpicking is effective to control this pest.</li> <li>◆ Collection and destruction of initial infected plant parts.</li> <li>◆ Spray wettable sulphur @ 2 g/l to control powdery mildew.</li> <li>◆ Spray COC (0.25%) or Bordeaux mixture @ 1% at weekly intervals for the management of various leaf spot diseases.</li> </ul>
Rajmash	Vegetative growth		<ul style="list-style-type: none"> <li>◆ Field should be kept weed free.</li> <li>◆ Staking should be provided for pole type bean.</li> <li>◆ Mulching with locally available biomass @ 5 t/ha to conserve the soil moisture.</li> </ul>
Large cardamom	Harvesting		<ul style="list-style-type: none"> <li>◆ Collection and destruction of disease infected plants/ tillers.</li> <li>◆ Harvesting of mature capsule and removal of unproductive and old tillers should be done as early as possible.</li> <li>◆ Spray wettable sulphur @ 0.25 % for the management of rust.</li> </ul>
Cole crops	Transplanting / Vegetative		<ul style="list-style-type: none"> <li>◆ Transplanting of seedlings should be done immediately.</li> <li>◆ Soil application of <i>Trichoderma viride</i>/ <i>Pseudomonas fluorescens</i> @ 2.5 kg mixed with 50kg well decomposed FYM for 1 ha.</li> <li>◆ Weeding should be done regularly.</li> </ul>

Dalley Chilli	Harvesting		<ul style="list-style-type: none"> <li>❖ Fallen fruits should be collected and destroyed to minimize fruit fly.</li> <li>❖ Fruit should be harvested and keep in shade overnight to remove field heat.</li> </ul>
Sikkim Mandarin	Fruit growth	<ul style="list-style-type: none"> <li>❖ Aphid </li> <li>❖ Leaf miner </li> <li>❖ Mealy bug </li> <li>❖ Trunk borer </li> <li>❖ Scab </li> </ul>	<ul style="list-style-type: none"> <li>❖ Basin of plants should be cleaned and mulching should be done with locally available biomass.</li> <li>❖ Spray petroleum oil based agro-spray @ 10 ml/l for managing aphid, leaf miner, mealy bug etc.</li> <li>❖ Regular monitoring and cleaning of infested trunk. Plug the holes with cotton soaked in kerosene/petrol and plaster with mixture of cow dung and soil.</li> <li>❖ Spray copper oxychloride @ 2.5 g/l to manage citrus scab.</li> </ul>

### Animal Sciences

Tibetan Sheep	Full grown wool	Chances of soiling and picking infection.	❖ Go for shearing and followed by spraying or Dipping in ectoparasitic solution.
Yak, Tibetan	Breeding	Weight gain	❖ Start observing heat sign.

Sheep	season		<ul style="list-style-type: none"> <li>◆ Collection and preservation of green fodder for hay purpose.</li> </ul>
Cattle, Sheep and Goat	All stages	Plenty of green pasture/ fodder available in the field.	<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>◆ FMD and HS vaccination is recommended.</li> <li>◆ Feeding of colostrums within 2 hrs of birth.</li> </ul>
Poultry	All stages	High humidity	<ul style="list-style-type: none"> <li>◆ Frequent raking and liming of deep litter materials.</li> <li>◆ Maintenance of brooder temperature for chicks with the help of electrical bulbs.</li> </ul>
Pig	All stages	High humidity	<ul style="list-style-type: none"> <li>◆ Keep floor dry to avoid skin diseases.</li> </ul>