



# STATE COMPOSITE AGRO-MET ADVISORY BULLETIN FOR THE STATE OF SIKKIM PERIOD: 2<sup>ND</sup> SEPTEMBER – 4<sup>TH</sup> SEPTEMBER 2014



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



**ISSUED ON TUESDAY 2<sup>ND</sup> SEPTEMBER 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 Gyalshing
- 4) South District with HQ at Namchi

# Part I: Weather

*Significant Past Weather in different districts during the period 29/8/14 TO 01/09/14*

*Weather Forecast for different districts for the period 02/09/14 to 06/09/14*

## North Sikkim

Mangan (AWS)				North Sikkim
Date	Rainfall (mm)	Max. Temp (°C)	Min. Temp (°C)	<ul style="list-style-type: none"> <li>Generally cloudy sky during the period 2<sup>nd</sup> September to 6<sup>th</sup> September is expected.</li> <li>Moderate rain is expected during the period 2<sup>nd</sup> September to 6<sup>th</sup> September.</li> <li>Wind from south-southeasterly to south-southwesterly with an average speed of 2-4 km/hr is expected.</li> <li>Maximum and minimum temperatures are expected to be around 29-30°C and 19°C respectively.</li> <li>Maximum and minimum relative humidity is expected to be 88-98% and 65-75% respectively.</li> </ul>
29-08-2014	021.0	30.9	18.9	
30-08-2014	012.0	30.8	18.7	
31-08-2014	009.0	23.2	19.4	
01-09-2014	015.0	26.0	19.3	

## East Sikkim

Gangtok				East Sikkim
Date	Rainfall (mm)	Max. Temp (°C)	Min. Temp (°C)	<ul style="list-style-type: none"> <li>Generally cloudy sky during the period 2<sup>nd</sup> September to 6<sup>th</sup> September is expected.</li> <li>Light to moderate rain is expected during the period 2<sup>nd</sup> September to 6<sup>th</sup> September.</li> <li>Wind from southeasterly to south-southwesterly with an average speed of 1-2 km/hr is expected.</li> <li>Maximum and minimum temperatures are expected to be around 23-24°C and 17°C respectively.</li> <li>Maximum and minimum relative humidity is expected to be 90-98% and 65-74% respectively.</li> </ul>
29-08-2014	042.0	24.5	16.8	
30-08-2014	033.6	24.9	17.2	
31-08-2014	000.0	19.2	18.1	
01-09-2014	040.8	19.4	17.4	

**Significant Past Weather in different districts during the period 29/8/14 TO 01/09/14**

**Weather Forecast for different districts for the period 02/09/14 to 06/09/14**

## South Sikkim

Namthang				South Sikkim
Date	Rainfall (mm)	Max. Temp (°C)	Min. Temp (°C)	<ul style="list-style-type: none"> <li>Generally cloudy sky during the period 2<sup>nd</sup> September to 6<sup>th</sup> September is expected.</li> <li>Light to moderate rain is expected during the period 2<sup>nd</sup> September to 6<sup>th</sup> September.</li> <li>Wind from southeasterly to southerly with an average speed of 2-3 km/hr is expected.</li> <li>Maximum and minimum temperatures are expected to be around 28-29°C and 19-20°C respectively.</li> <li>Maximum and minimum relative humidity is expected to be 90-97% and 65-72% respectively.</li> </ul>
29-08-2014	006.8	29.0	20.0	
30-08-2014	000.0	29.5	20.0	
31-08-2014	003.8	29.5	20.0	
01-09-2014	037.6	25.0	20.0	

## West Sikkim



Gyalshing				West Sikkim
Date	Rainfall (mm)	Max. Temp (°C)	Min. Temp (°C)	<ul style="list-style-type: none"> <li>Generally cloudy sky during the period 2<sup>nd</sup> September to 6<sup>th</sup> September is expected.</li> <li>Light to moderate rain is expected during the period 2<sup>nd</sup> September to 6<sup>th</sup> September.</li> <li>Wind from easterly to southeasterly with an average speed of 1-3 km/hr is expected.</li> <li>Maximum and minimum temperatures are expected to be around 26-27°C and 17°C respectively.</li> <li>Maximum and minimum relative humidity is expected to be 92-97% and 69-77% respectively.</li> </ul>
29-08-2014	N/A	27.6	16.4	
30-08-2014	N/A	27.9	17.3	
31-08-2014	N/A	20.7	17.8	
01-09-2014	N/A	N/A	17.0	




## **Part II**



### **AGRO-METEREOLOGICAL ADVISORIES**

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

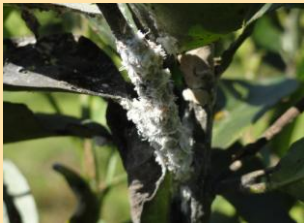


- ◆ Proper drainage to be maintained in pulse/beans/ginger/turmeric/Dalley chilli.
- ◆ Avoid water stagnation in guava/ mandarin crop.
- ◆ Preventive spray and soil drenching with copperoxychloride@2.5 g/l of water at weekly intervals.
- ◆ Avoid spraying of plant protection biopesticides during rain and morning hours.
- ◆ Field preparation for early *Rabi* vegetable crops like cole crops, pea, leafy vegetables, tomato *etc.*
- ◆ 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	Maximum tillering/ booting	Leaf folder	<ul style="list-style-type: none"> <li>✳ Weeding should be completed.</li> <li>✳ Maintain 2-3 cm water in the field.</li> <li>✳ Spray neem based formulation (1500ppm) @ 3ml per litre of water for controlling leaf folder.</li> <li>✳ Monitor regularly and unfold the leaves folded by the leaf folder; and manually collect and destroy.</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> </ul>
		 Blast of rice 	

Soybean	Pod formation/ milking stage	<p>Blister beetle</p>  <p>Leaf roller damage</p> 	<ul style="list-style-type: none"> <li>Proper drainage should be maintained.</li> <li>Spray neem based formulation (1500ppm) @ 3ml per litre of water for controlling leaf roller.</li> <li>Monitor regularly and unfold the leaves folded by the leaf roller. Manually collect and destroy both the insects.</li> <li>Spray wettable Sulphur @0.25% for the management of rust and powdery mildew.</li> </ul>
Pahenlo dal /Kalo Dal ( <i>urd</i> bean)	Vegetative/ flowering		<ul style="list-style-type: none"> <li>Proper drainage should be maintained</li> <li>Weeding should be done.</li> <li>Spray neem based formulation (1500 ppm) @ 3ml per litre of water for controlling leaf feeding beetles.</li> <li>Spray COC (0.25%) or Bordeaux mixture @ 1% at weekly intervals for the management of various leaf spot diseases.</li> </ul>
Finger millet	Tillering/ flowering		<ul style="list-style-type: none"> <li>Maintain optimum plant population for good yield.</li> <li>Weeding to be undertaken.</li> </ul>
Beans	Vegetative/ Flowering	<ul style="list-style-type: none"> <li>Blister beetle may occur and destroy flowers.</li> </ul>  <ul style="list-style-type: none"> <li>Powdery mildew</li> </ul>	<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 out sulphur based fungicide @ 2 g/l to control powdery mildew.</li> <li>Proper drainage should be maintained</li> <li>Spray COC (0.25%) or Bordeaux mixture @ 1% at weekly intervals for the management of various leaf spot diseases.</li> </ul>
Large cardamom	Capsule formation	Infestation of shoot flies and stem borer.	<ul style="list-style-type: none"> <li>Collection and destruction of infested tillers. Spraying of neem formulation (1500 ppm) @ 3 ml/l.</li> <li>Keep cardamom fields weed free.</li> <li>Collection and destruction of disease</li> </ul>

			infected plants/ tillers.
Cole crops	--		<ul style="list-style-type: none"> <li>Time for nursery raising of cabbage, cauliflower and broccoli under low cost structure.</li> <li>Dolomite application @ 200g/sqm for soil having pH less than 5.5.</li> <li>Seed treatment with <i>Trichoderma viride</i> @ 4 g/kg of seed.</li> <li>Soil drenching of nursery bed with copper oxychloride @2.5 g/ l or Bordeaux mixture @ 1% to prevent damping off.</li> <li>Soil application of <i>Trichoderma viride</i> @ 2.5 kg mixed with 50kg well decomposed FYM for 1 ha.</li> <li>Prepare 15cm raised bed nursery of 1m width.</li> <li>Well-decomposed FYM @ 2.5 kg/sqm to be applied during nursery bed preparation.</li> </ul>
Dalley Chilli	Fruiting	Fruit fly damage	<ul style="list-style-type: none"> <li>Field should be cleaned and weed free.</li> <li>Proper drainage should be maintained.</li> <li>Fallen fruits should be collected and destroyed to minimize fruit fly.</li> </ul>
Sikkim Mandarin	Fruit growth	<p>Aphid</p>  <p>Leaf miner</p> 	<ul style="list-style-type: none"> <li>Proper drainage should be maintained.</li> <li>Basin of plants should be cleaned.</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>



		<p>Mealy bug</p>  <p>Trunk borer</p>  <p>Scab</p> 	
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### ***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 Sheep	Breeding season	Weight gain	✳ Start observing heat sign.
Cattle, Sheep and Goat	All stages	Plenty of green pasture/ fodder available in the field.	✳ 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.
Poultry	All stages	High humidity	✳ Frequent raking and liming of deep litter materials.
Pig	All stages	High humidity	✳ Keep floor dry to avoid skin diseases.