



# STATE COMPOSITE AGRO-MET ADVISORY BULLETIN FOR THE STATE OF SIKKIM PERIOD: 23<sup>rd</sup> DECEMBER – 25<sup>th</sup> DECEMBER 2014



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



**ISSUED ON TUESDAY 23<sup>rd</sup> DECEMBER 2014**

## 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 (AWS)				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	Mainly Clear	Mainly Clear	Partly Cloudy	Mainly Clear	Mainly Clear
19/12/2014	000	00.0	07.3	Rainfall	No rain	No rain	No rain	No rain	No rain
20/12/2014	000	00.0	00.0	Wind (Speed/ Dir)	2Km/Hr(SW)	3Km/Hr(S)	4Km/Hr(S)	1Km/Hr(SW)	2Km/Hr(SSW)
21/12/2014	000	00.0	00.0	Temperature (Min-Max)	7 - 18°C	7 - 18°C	7 - 17°C	8 - 17°C	8 - 17°C
22/12/2014	000	00.0	00.0	RH (Min-Max)	50 - 80%	45 - 75%	55 - 84%	50 - 85%	55 - 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	Mainly Clear	Mainly Clear	Partly Cloudy	Mainly Clear	Mainly Clear
19/12/2014	000	00.0	07.4	Rainfall	No rain	No rain	No rain	No rain	No rain
20/12/2014	000	00.0	00.0	Wind (Speed/ Dir)	1Km/Hr(S)	2Km/Hr(ESE)	2Km/Hr(ESE)	1Km/Hr(ESE)	1Km/Hr(SSE)
21/12/2014	000	00.0	00.0	Temperature (Min-Max)	6 - 14°C	6 - 14°C	6 - 14°C	7 - 14°C	7 - 14°C
22/12/2014	000	00.0	00.0	RH (Min-Max)	55 - 85%	49 - 81%	57 - 85%	55 - 85%	52 - 83%

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	Mainly Clear	Mainly Clear	Partly Cloudy	Mainly Clear	Mainly Clear
19/12/2014	000	00.0	06.5	Rainfall	No rain	No rain	No rain	No rain	No rain
20/12/2014	000	00.0	00.0	Wind (Speed/ Dir)	1Km/Hr(SSW)	1Km/Hr(SE)	3Km/Hr(SE)	1Km/Hr(SSE)	1Km/Hr(SSW)
21/12/2014	000	00.0	00.0	Temperature (Min-Max)	7 - 17°C	7 - 17°C	7 - 17°C	8 - 17°C	8 - 17°C
22/12/2014	000	00.0	00.0	RH (Min-Max)	53 - 80%	48 - 77%	55 - 85%	54 - 83%	53 - 84%



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	Mainly Clear	Mainly Clear	Partly Cloudy	Mainly Clear	Mainly Clear
19/12/2014	000	00.0	06.3	Rainfall	No rain	No rain	No rain	No rain	No rain
20/12/2014	000	00.0	00.0	Wind (Speed/ Dir)	1Km/Hr(WSW)	2Km/Hr(ESE)	4Km/Hr(SE)	2Km/Hr(SSE)	1Km/Hr(W)
21/12/2014	000	00.0	00.0	Temperature (Min-Max)	6 - 18°C	6 - 18°C	6 - 17°C	6 - 17°C	6 - 17°C
22/12/2014	000	00.0	00.0	RH (Min-Max)	47 - 75%	49 - 78%	58 - 85%	51 - 87%	54 - 80%


## **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.
- Sowing/transplanting of *Rabi* vegetable crops like cole crops, pea, leafy vegetable *etc.* and fodder crops (oat/berseem).
- Utilization of harvested water stored in various structures like *Jalkund* is recommended through drip and sprinkler irrigation system for cultivation of *Rabi* crops.
- Incorporate organic sources of nutrients (FYM, Vermicompost, Poultry manure, Pig manure, Goat/ Sheep manure, Mixed compost, Neem cake *etc.*) in to the soil for cultivation of all *Rabi* crops.

Name of the crop/Animal	Stage	Pest/ Disease	Agro-Met Advisories
<b>Crops</b>			
Finger millet	Harvesting		<ul style="list-style-type: none"> <li>◆ Harvesting should be done as earliest during morning hour and store at safer place.</li> </ul>
Rapeseed and mustard	Sowing after harvest of rice/ Vegetative stage	White rust  	<ul style="list-style-type: none"> <li>◆ Thinning to maintain row to row and plant to plant spacing of 30x10 cm, respectively.</li> <li>◆ One irrigation and mulching with locally available bio resources and one is recommended.</li> <li>◆ Remove the infected inflorescence.</li> </ul>
Buckwheat	Flowering / grain filling		<ul style="list-style-type: none"> <li>◆ Regular monitoring of crop.</li> </ul>

Garden pea	Sowing/ emergence		<ul style="list-style-type: none"> <li>◆ Sowing of pea to be completed after harvest of rice to benefit from residual moisture and mulching with locally available biomass after emergence is recommended.</li> </ul>
Large cardamom	Harvesting		<ul style="list-style-type: none"> <li>◆ Removal and burying of blight infected leaves.</li> <li>◆ Application of 500g vermicompost / 2kg well decomposed FYM per clump is recommended.</li> <li>◆ Two irrigations in a month are recommended.</li> <li>◆ Field sanitation and removal of unproductive tillers.</li> </ul>
Ginger	Harvesting/ Storage		<ul style="list-style-type: none"> <li>◆ Harvesting should be done at proper stage.</li> <li>◆ Harvested rhizome should be dried for two weeks under shade condition and stored in cool and dry place for seed material.</li> </ul>
Cole crops	Transplanting / Vegetative	Damping off 	<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>◆ Drenching with copper oxychloride @ 0.25 % or Bordeaux mixture @ 1% at 10 days interval for the management of damping off and root rot.</li> <li>◆ Application of Neem cake/ mustard oil cake @ 50kg/1000sqm.</li> <li>◆ Drenching of plant with mixture of water, cow urine and Neem oil 8 litre, 2 litre and 50 ml, respectively at weekly interval to avoid red ant and cut worms.</li> <li>◆ Earthing up for early transplanted crop is recommended.</li> </ul>

Tomato	Fruit setting/ harvesting	Late blight of tomato	<ul style="list-style-type: none"> <li>Watering should be done at the base of the plant.</li> <li>Removal of diseased leaves and branches and weekly spraying of copper oxychloride @ 0.25% for the management of late blight disease.</li> </ul>
Potato	Planting/ vegetative	Late blight of potato	<ul style="list-style-type: none"> <li>Kufri Jyoti, K. Giriraj, K. Sheetman, K. Badshah are recommended varieties.</li> <li>Tubers with two eyes, weighing 40-50 g are ideal for planting.</li> <li>Ridge to ridge spacing of 45 cm and plant to plant distance of 30 cm has to be maintained.</li> <li>FYM @ 10-15 t/ha and Neem cake 500 kg/ ha is recommended.</li> <li>Removal of diseased leaves and branches and weekly spraying of copper oxychloride @ 0.25% for the management of late blight disease.</li> </ul>
Sikkim Mandarin	Harvesting		<ul style="list-style-type: none"> <li>Pluck the fruit along with the twig to avoid injury.</li> <li>Harvesting to be done carefully to avoid breakage of productive branches.</li> <li>Collect fallen fruits and destroy to prevent further multiplication of fruit flies.</li> <li>Packing of graded fruits in corrugated fibre boxes cushioned with dry paddy straw to reduce post harvest loss.</li> </ul>

### ***Animal Sciences***

Tibetan Sheep	Sheared sheep		<ul style="list-style-type: none"> <li>Dipping the animal / spraying with ectoparasitic drug at 3 monthly intervals.</li> <li>Provide winter shelter for lambs.</li> </ul>
Yak	Pregnancy	Weight gain	<ul style="list-style-type: none"> <li>Pregnancy diagnosis is recommended.</li> <li>Feeding of concentrate feed along with mineral mixture and salt.</li> <li>Provide winter shelter for calves.</li> </ul>
Cattle, Sheep and Goat	All stages		<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</li> </ul>

			<p>or late evening and ensure breeding of the animal after 12 hr of 1<sup>st</sup> heat observe.</p> <ul style="list-style-type: none"> <li>◆ Feeding of colostrums within 2 hrs of birth.</li> <li>◆ Feeding of concentrate feed along with mineral mixture and salt.</li> <li>◆ De-worming with Fenbendazole @ 10 mg / kg body weight.</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> <li>◆ Ranikhet vaccination at 5<sup>th</sup> day and at 30<sup>th</sup> day of age.</li> </ul>
Pig	All stages		<ul style="list-style-type: none"> <li>◆ Keep floor dry to avoid skin diseases.</li> <li>◆ De-worming with Fenbendazole @ 10 mg / kg body weight.</li> <li>◆ Dipping the animal / spraying with ectoparasitic drug at 3 monthly intervals.</li> </ul>