



# STATE COMPOSITE AGRO-MET ADVISORY BULLETIN FOR THE STATE OF SIKKIM PERIOD: 11<sup>th</sup> NOVEMBER – 13<sup>th</sup> NOVEMBER 2014



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



**ISSUED ON TUESDAY 11<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 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	Generally Cloudy	Generally Cloudy	Generally Cloudy	Partly Cloudy	Partly Cloudy
7-11-2014	000	24.1	N/A	Rainfall	No rain	No rain	No rain	No rain	No rain
8-11-2014	000	24.6	12.3	Wind (Speed/ Dir)	2KT(SSW)	2KT(WSW)	2KT(SW)	1KT(SSW)	1KT(SSW)
9-11-2014	000	22.4	14.0	Temperature (Min-Max)	14 - 23°C	14 - 23°C	14 - 22°C	13 - 22°C	13 - 22°C
10-11-2014	000	23.1	14.8	RH (Min-Max)	66 - 92%	66 - 92%	65 - 90%	65 - 88%	63 - 83%

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	Generally Cloudy	Generally Cloudy	Generally Cloudy	Partly Cloudy	Partly Cloudy
7-11-2014	000	20.0	11.5	Rainfall	No rain	No rain	No rain	No rain	No rain
8-11-2014	000	19.8	11.6	Wind (Speed/ Dir)	1KT(S)	1KT(SW)	2KT(SSW)	2KT(SE)	1KT(SE)
9-11-2014	000	19.3	12.5	Temperature (Min-Max)	12 - 18°C	12 - 18°C	12 - 18°C	11 - 19°C	11 - 19°C
10-11-2014	000	18.3	13.0	RH (Min-Max)	68 - 92%	68 - 92%	67 - 90%	60 - 88%	60 - 88%

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	Partly Cloudy	Partly Cloudy
7-11-2014	000	23.0	12.5	Rainfall	No rain	No rain	No rain	No rain	No rain
8-11-2014	000	22.5	12.0	Wind (Speed/ Dir)	2KT(SSW)	2KT(WSW)	1KT(SSW)	1KT(SSE)	1KT(SSE)
9-11-2014	000	23.0	13.5	Temperature (Min-Max)	13 - 22°C	13 - 23°C	12 - 23°C	12 - 23°C	12 - 23°C
10-11-2014	000	23.0	12.5	RH (Min-Max)	60 - 87%	60 - 87%	55 - 85%	55 - 85%	54 - 80%

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	Partly Cloudy	Partly Cloudy
7-11-2014	000	N/A	N/A	Rainfall	No rain	No rain	No rain	No rain	No rain
8-11-2014	000	22.3	10.3	Wind (Speed/ Dir)	2KT(W)	2KT(W)	1KT(SW)	1KT(SSE)	1KT(SSE)
9-11-2014	000	21.7	11.5	Temperature (Min-Max)	22/11	22/11	22/11	21/11	21/11
10-11-2014	000	20.7	11.5	RH (Min-Max)	65 - 90%	65 - 90%	62 - 88%	61 - 84%	58 - 82%


## **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 and transplanting of *Rabi* vegetable crops like cole crops, pea, leafy vegetables, tomato *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 in to the soil for cultivation of all *Rabi* crops.

Name of the crop/Animal	Stage	Pest/ Disease	Agro-Met Advisories
<b>Crops</b>			
Rice	Maturity and Harvesting stage		<ul style="list-style-type: none"> <li>◆ Use of birds scaring ribbon for preventing bird's damage.</li> <li>◆ Early threshing of rice crop is recommended after harvest to avoid shattering.</li> <li>◆ Select healthy/ disease free panicles for seed purpose.</li> <li>◆ Store seed in cool and dry place after proper drying.</li> </ul>
Finger millet	Grain filling		<ul style="list-style-type: none"> <li>◆ Use of birds scaring ribbon for preventing bird's damage.</li> </ul>
Rapeseed and mustard	Sowing after harvest of rice/ Vegetative stage		<ul style="list-style-type: none"> <li>◆ Line sowing is recommended @ 6kg/ha.</li> <li>◆ 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>◆ Seed treatment with <i>Trichoderma viride</i> / <i>T. harzianum</i> @ 4g/kg.</li> <li>◆ FYM application @ 5-10 t/ha and</li> </ul>

			vermicompost @ 2 t/ha is recommended.
Buckwheat	Sowing/ Flowering		<ul style="list-style-type: none"> <li>◆ Line sowing @ 35 kg/ha maintaining row to row and plant to plant spacing of 30x15 cm respectively to maintain optimum plant population.</li> <li>◆ Light pre sowing irrigation is recommended.</li> </ul>
Rajmash	Fruiting / harvesting		<ul style="list-style-type: none"> <li>◆ Harvest at proper maturity stage and store after sun drying.</li> </ul>
Large cardamom	Harvesting		<ul style="list-style-type: none"> <li>◆ Spray wettable sulphur @ 0.25 % for the management of rust.</li> <li>◆ Application of 500g vermicompost / 2kg well decomposed FYM per clump is recommended.</li> <li>◆ Two irrigations in a month is recommended.</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 ltr., 2 ltr. 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	Transplanting		<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		<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 to be planted.</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> </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 or late evening and ensure breeding of the animal after 12 hr of 1<sup>st</sup> heat observe.</li> <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</li> </ul>

			litter materials. ♦ Maintenance of brooder temperature for chicks with the help of electrical bulbs. ♦ Ranikhet vaccination at 5 <sup>th</sup> day and at 30 <sup>th</sup> day of age.
Pig	All stages		♦ Keep floor dry to avoid skin diseases. ♦ De-worming with Fenbendazole @ 10 mg / kg body weight. ♦ Dipping the animal / spraying with ectoparasitic drug at 3 monthly interval.