

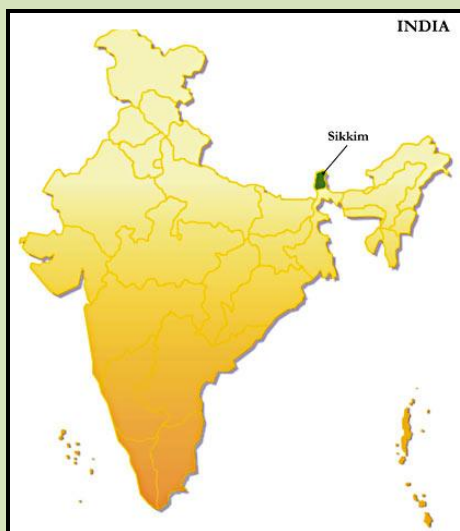


# STATE COMPOSITE AGRO-MET ADVISORY BULLETIN FOR THE STATE OF SIKKIM PERIOD:



**8<sup>TH</sup> SEPTEMBER to 10<sup>TH</sup> SEPTEMBER'2015**

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



**ISSUED ON TUESDAY 8<sup>TH</sup> SEPTEMBER'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	Generally Cloudy	Generally Cloudy	Generally Cloudy
4-9-2015	009	27.1	19.5	Rainfall	Light	Light	Light	Moderate	Moderate
5-9-2015	020	29.0	18.1	Wind (Speed/ Dir)	2Km/Hr (SW)	3Km/Hr (SSW)	3Km/Hr (SSW)	3Km/Hr (SSW)	3Km/Hr (SSW)
6-9-2015	021	26.1	18.5	Temperature (Min-Max)	19 - 29°C	19 - 29°C	18 - 28°C	18 - 27°C	18 - 27°C
7-9-2015	000	30.0	17.2	RH (Min-Max)	65 - 85%	67 - 88%	70 - 90%	70 - 87%	70 - 92%

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	Generally Cloudy	Generally Cloudy
4-9-2015	021	21.0	18.1	Rainfall	Light	Light	Light	Light	Moderate
5-9-2015	022	20.6	18.0	Wind (Speed/ Dir)	2Km/Hr (S)	2Km/Hr (SSE)	3Km/Hr (SSE)	2Km/Hr (S)	2Km/Hr (SE)
6-9-2015	018	21.0	16.6	Temperature (Min-Max)	17 - 23°C	17 - 23°C	17 - 23°C	17 - 22°C	17 - 22°C
7-9-2015	008	23.1	17.9	RH (Min-Max)	80 - 93%	82 - 92%	84 - 92%	85 - 95%	85 - 96%

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	Generally Cloudy	Generally Cloudy	Generally Cloudy
4-9-2015	002	28.0	20.5	Rainfall	Light	Light	Light	Moderate	Moderate
5-9-2015	002	27.5	20.5	Wind (Speed/ Dir)	2Km/Hr (S)	2Km/Hr (SSE)	3Km/Hr (S)	3Km/Hr (S)	3Km/Hr (SSE)
6-9-2015	001	27.0	19.0	Temperature (Min-Max)	19 - 28°C	19 - 28°C	19 - 28°C	19 - 28°C	19 - 27°C
7-9-2015	000	28.5	19.5	RH (Min-Max)	65 - 81%	66 - 85%	73 - 87%	69 - 90%	73 - 90%



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	Generally Cloudy	Generally Cloudy	Generally Cloudy
4-9-2015	015	22.3	18.0	Rainfall	Very Light	Light	Light	Moderate	Moderate
5-9-2015	023	23.8	18.0	Wind (Speed/ Dir)	2Km/Hr (SSE)	2Km/Hr (S)	3Km/Hr (S)	2Km/Hr (S)	3Km/Hr (S)
6-9-2015	035	22.6	17.7	Temperature (Min-Max)	17 - 26°C	17 - 25°C	17 - 25°C	17 - 25°C	17 - 24°C
7-9-2015	010	25.5	17.1	RH (Min-Max)	65 - 85%	70 - 90%	78 - 90%	73 - 92%	79 - 95%



## **Part II**





### **AGRO-METEOROLOGICAL 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 early season cole crops (cabbage, cauliflower, broccoli), onion, raya saag etc. under protected condition.
- ❖ Ensure proper drainage to avoid water logging especially for ginger, turmeric and kharif vegetables.
- ❖ Avoid feeding of damp and foul smelling feed to all livestock and poultry.
- ❖ De-worming with Fenbendazole @ 10 mg / kg body weight.

Name of the crop/Animal	Stage	Pest/ Disease	Agro-Met Advisories
<b>Crops</b>			
Rice	Vegetative	Leaf folder 	<ul style="list-style-type: none"> <li>❖ Proper maintenance of field channel and bunds are necessary to utilize the rain water.</li> <li>❖ Weeding should be done where crop is in vegetative stage (20-25 days after planting).</li> <li>❖ Spray neem based formulation (1500ppm) @ 3ml per litre of water for controlling leaf folder.</li> <li>❖ Uprooted weeds may be left in between rows to decompose in standing flood water. Weeds may be incorporated into the soil under SRI.</li> <li>❖ Maintain proper drainage for good tillering.</li> </ul>
Rice bean	Vegetative/ Pod formation	Blister Beetle  Legume pod borer	<ul style="list-style-type: none"> <li>❖ Proper staking should be done.</li> <li>❖ Collection and destruction of Blister beetles and spraying of Neem oil @3ml/lit should be done.</li> </ul>

Soybean	Flowering/ Pod formation		<ul style="list-style-type: none"> <li>◆ Weeding should be done.</li> <li>◆ Maintain optimum plant population.</li> <li>◆ Uproot diseased plants.</li> </ul>
Black gram	Vegetative/ Pod formation	Blister Beetle 	<ul style="list-style-type: none"> <li>◆ To avoid water logging proper drainage should be maintained.</li> <li>◆ Collection and destruction of Blister beetles and spraying of Neem oil @3ml/lit should be done.</li> <li>◆ Weeding should be done</li> </ul>
Finger Millet	Vegetative/ Grain formation		<ul style="list-style-type: none"> <li>◆ Proper maintenance of field channel and bunds are necessary to utilize the rain water.</li> <li>◆ Weeding should be continued.</li> </ul>
Tomato	Flowering/ fruiting	Late Blight 	<ul style="list-style-type: none"> <li>◆ Proper drainage should be maintained.</li> <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>
Early winter vegetables	Nursery		<ul style="list-style-type: none"> <li>◆ Nursery can be raised for early winter vegetables like cabbage, cauliflower, broccoli, onion, 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, Trichoderma @2% should be incorporated in soil before sowing seed.</li> <li>◆ Regular watering in nursery is recommended.</li> </ul>
Dalley chilli/ Red Cherry pepper	Flowering/ fruiting	Fruit fly	<ul style="list-style-type: none"> <li>◆ Proper drainage should be maintained.</li> <li>◆ Collection and destruction of infested fruit.</li> <li>◆ Installation of para pheromone trap (cue lure) @ 16-20 traps/ha.</li> <li>◆ Regular harvesting should be done to improve the yield.</li> </ul>

Large cardamom	Maturity		<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>◆ Removal of infected leaves/ plant and spray with copper oxychloride @ 0.25 %.</li> </ul>
Ginger	Vegetative	Soft rot	<ul style="list-style-type: none"> <li>◆ Proper drainage should be maintained.</li> <li>◆ Weeding is recommended.</li> <li>◆ Removal of infected leaves/ plant and drenching/ spray with copper oxychloride @ 0.25 %.</li> </ul>
Okra	Flowering/ fruiting	Blister beetle 	<ul style="list-style-type: none"> <li>◆ Proper drainage should be maintained.</li> <li>◆ Regular weeding should be done and followed by earthing up.</li> <li>◆ Collection and destruction of Blister beetles and spraying of Neem oil @ 3ml/lit should be done.</li> </ul>
Sikkim Mandarin	Vegetative / active fruit growth	Scab   Leaf miner   Aphid 	<ul style="list-style-type: none"> <li>◆ Proper drainage should be maintained to avoid water stagnation.</li> <li>◆ Basin should be weed free.</li> <li>◆ Removal of scab infected leaves and spray copper oxychloride @ 0.25 %.</li> <li>◆ Spray of petroleum oil based agro spray @ 10ml/l for the management of aphid and leaf miner.</li> <li>◆ Regular monitoring for trunk borer infestation.</li> </ul>
Kiwifruit	Active fruit growth		<ul style="list-style-type: none"> <li>◆ Proper drainage should be maintained to avoid water stagnation.</li> <li>◆ Basin should be weed free.</li> <li>◆ Preventive spray of copper oxychloride @ 0.25 % and petroleum oil based agro spray @ 10 ml/l.</li> </ul>



## Animal Sciences

Tibetan Sheep	Production stage		<ul style="list-style-type: none"> <li>◆ Spraying of ectoparasiticide.</li> <li>◆ Feeding of concentrate feed along with mineral mixture and salt.</li> </ul>
Yak	Production stage		<ul style="list-style-type: none"> <li>◆ Feeding of concentrate feed along with mineral mixture and salt.</li> <li>◆ Spraying of ectoparasiticide.</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 concentrate feed along with jaggery, mineral mixture and salt.</li> <li>◆ Periodic application of fly repellents and/ or netting of dung pit is recommended.</li> </ul>
Cattle	Periparturient		<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	All stages	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> </ul>

			<ul style="list-style-type: none"> <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 weeks 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>