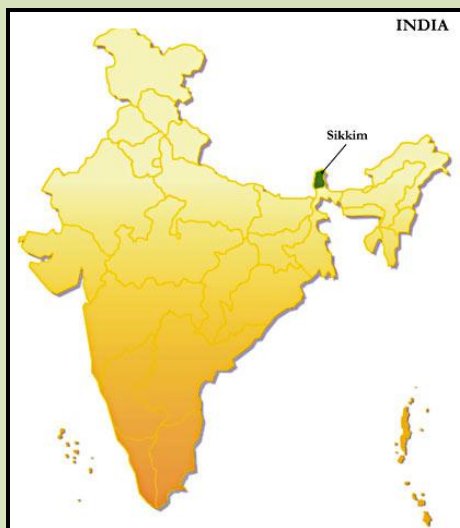




STATE COMPOSITE AGRO-MET ADVISORY BULLETIN FOR THE STATE OF SIKKIM PERIOD: 13TH OCTOBER to 15TH OCTOBER'2015



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



ISSUED ON TUESDAY 13TH OCTOBER'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
9/10/2015	000	25.5	17.2	Rainfall	Light	Light	Light	Light	Light
10/10/2015	000	30.1	17.1	Wind (Speed/ Dir)	4Km/Hr (ENE)	4Km/Hr (S)	2Km/Hr (W)	3Km/Hr (NE)	2Km/Hr (ENE)
11/10/2015	005	20.5	18.2	Temperature (Min-Max)	17 - 26°C	17 - 26°C	17 - 27°C	17 - 27°C	17 - 27°C
12/10/2015	000	26.2	17.0	RH (Min-Max)	56 - 78%	56 - 78%	58 - 76%	57 - 74%	55 - 74%

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
9/10/2015	000	22.2	15.0	Rainfall	Light	Light	Light	Light	Light
10/10/2015	000	21.8	15.0	Wind (Speed/ Dir)	4Km/Hr (E)	2Km/Hr (ESE)	2Km/Hr (W)	2Km/Hr (E)	2Km/Hr (E)
11/10/2015	001	17.4	14.5	Temperature (Min-Max)	14 - 20°C	14 - 20°C	14 - 21°C	13 - 21°C	13 - 21°C
12/10/2015	001	19.4	14.3	RH (Min-Max)	62 - 82%	62 - 82%	60 - 80%	60 - 78%	58 - 76%

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
9/10/2015	000	26.0	19.0	Rainfall	Light	Light	Very Light	Very Light	Light
10/10/2015	000	26.5	18.5	Wind (Speed/ Dir)	4Km/Hr (E)	3Km/Hr (SE)	2Km/Hr (W)	3Km/Hr (E)	2Km/Hr (E)
11/10/2015	000	27.0	17.0	Temperature (Min-Max)	18 - 26°C	18 - 26°C	18 - 27°C	18 - 27°C	18 - 27°C
12/10/2015	000	26.0	16.5	RH (Min-Max)	58 - 80%	57 - 80%	56 - 78%	55 - 76%	55 - 77%



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
9/10/2015	000	24.7	14.4	Rainfall	Light	Light	Light	Light	Light
10/10/2015	000	25.5	14.9	Wind (Speed/ Dir)	4Km/Hr (NE)	2Km/Hr (SE)	2Km/Hr (NW)	4Km/Hr (ENE)	2Km/Hr (NE)
11/10/2015	010	21.6	14.0	Temperature (Min-Max)	14 - 23°C	14 - 23°C	14 - 24°C	13 - 24°C	13 - 24°C
12/10/2015	000	24.0	13.4	RH (Min-Max)	62 - 80%	60 - 80%	60 - 82%	58 - 80%	58 - 78%



Part II




AGRO-METEOREOLOGICAL 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.
- ❖ Mulching should be done through locally available biomass to conserve soil moisture for rabi crops.
- ❖ Jalkund should be covered with thatch to prevent evaporation losses.
- ❖ 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
<i>Crops</i>			
Rice	Reproductive	Neck blast  Gundhi bug	<ul style="list-style-type: none"> ❖ Spray neem based formulation (1500ppm) @ 3ml per litre of water for controlling rice gundhi bug. ❖ Proper soil moisture should be maintained up to grain filling stage. ❖ Spray with copper oxychloride @ 0.25 % or Bordeaux mixture @ 1% for the management of neck blast at 10-15 days interval.
Rice bean	Pod formation	Blister Beetle  Legume pod borer	<ul style="list-style-type: none"> ❖ Proper staking should be done. ❖ Collection and destruction of Blister beetles and legume pod borer and spraying of Neem oil @3ml/lit should be done.
Soybean	Pod development/ Harvesting		<ul style="list-style-type: none"> ❖ Uproot diseased plants. ❖ Harvesting should be done when pod turns pale yellow colour.

Black gram	Pod formation/ Harvesting	Blister Beetle 	<ul style="list-style-type: none"> ◆ Collection and destruction of Blister beetles and spraying of Neem oil @3ml/lit should be done. ◆ Harvesting should be done when pod turns pale yellow colour.
Finger Millet	Grain formation/ Harvesting		<ul style="list-style-type: none"> ◆ Regular field monitoring should be done.
Buckwheat	Sowing		<ul style="list-style-type: none"> ◆ After field preparation FYM @ 2t/ha and vermicompost @ 1t/ ha should be applied. ◆ Sowing should be done in line at the spacing of 30x10cm.
Vegetable pea	Sowing		<ul style="list-style-type: none"> ◆ Apply FYM @ 2t/ha and vermicompost @ 1t/ ha before sowing. ◆ Sowing should be done in line at the spacing of 30-40x10cm.
Tomato	Flowering/ fruiting	Late Blight 	<ul style="list-style-type: none"> ◆ Removal of infected leaves/ plant and drenching/ spray with copper oxychloride @ 0.25 % or Bordeaux mixture @ 1%. ◆ Harvesting of mature green tomato should be done for distant market and pinkish/ reddish for local market.
Early winter vegetables	Nursery/ Transplanting		<ul style="list-style-type: none"> ◆ Transplanting should be done in small pits filled with well decomposed FYM @ 2-2.5 kg/sqm., neem cake @ 200g/sqm. and Trichoderma @1-2 g/sqm should be mixed in soil before transplanting. ◆ Nursery can be raised for early winter vegetables like cabbage, cauliflower, broccoli, onion, raya saag etc. ◆ Seed should be sown in moist soil in raised nursery bed of size 1x5m under protected condition. ◆ FYM @ 2kg/ sqm, neem cake @ 200g/sqm, Trichoderma @2% should be incorporated in soil before sowing seed. ◆ Regular watering in nursery is

			recommended.
Dalley chilli/ Red Cherry pepper	Flowering/ fruiting	Fruit fly	<ul style="list-style-type: none"> ◆ Collection and destruction of infested fruit. ◆ Installation of para pheromone trap (cue lure) @ 16-20 traps/ha. ◆ Regular harvesting should be done to improve the yield.
Large cardamom	After harvesting		<ul style="list-style-type: none"> ◆ Removal and burying of blight infected leaves. ◆ Weeding/ removal of infected tillers should be done. ◆ FYM @ 2kg/ sqm, neem cake @ 200g/sqm, Trichoderma @2% should be incorporated in soil before sowing seed.
Ginger	Seed rhizome		<ul style="list-style-type: none"> ◆ Identify healthy plants for seed rhizomes.
Sikkim Mandarin	Fruit maturity	Scab  Leaf miner  Aphid 	<ul style="list-style-type: none"> ◆ Collection of infected dropped fruit and buried in to soil. ◆ Removal of scab infected leaves and spray copper oxychloride @ 0.25 %. ◆ Spray of petroleum oil based agro spray @ 10ml/l for the management of aphid and leaf miner. ◆ Regular monitoring for trunk borer infestation.
Kiwifruit	Fruit maturity		<ul style="list-style-type: none"> ◆ Preventive measures should be taken to avoid bird and squirrel damage.
Animal Sciences			
Tibetan Sheep	Production stage		<ul style="list-style-type: none"> ◆ Spraying of ectoparasiticide. ◆ Feeding of concentrate feed along with mineral mixture and salt.

Yak	Production stage		<ul style="list-style-type: none"> ◆ Feeding of concentrate feed along with mineral mixture and salt. ◆ Spraying of ectoparasiticide.
Cattle, Sheep and Goat	All stages		<ul style="list-style-type: none"> ◆ 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 1st heat observe. ◆ Feeding of concentrate feed along with jaggery, mineral mixture and salt. ◆ Periodic application of fly repellents and/ or netting of dung pit is recommended.
Cattle	Periparturient		<ul style="list-style-type: none"> ◆ Balanced feeding of dairy animals and allow calf suckling immediately after parturition. ◆ Full hand milking should be practiced. ◆ Frequent incomplete milking at interval of 4hrs should be practiced after parturition for minimum 1 week.
Poultry	All stages	Coccidiosis	<ul style="list-style-type: none"> ◆ 16 hrs of light (natural and electrical) should be provided to adult birds for optimum egg production. ◆ Frequent raking and liming of deep litter materials. ◆ Inclusion of turmeric powder @ 10g/kg feed for prevention of coccidiosis. ◆ Maintenance of brooder temperature for chicks with the help of electrical bulbs for initial one month. ◆ Ranikhet vaccination at 5th day and at 30th day of age. ◆ Calcium and multi vitamin supplementation is strongly recommended to optimize egg production. ◆ Spraying of ectoparasiticide @ 1% deltamethrin/ cypermethrin.
Pig	All stages	Swine fever	<ul style="list-style-type: none"> ◆ Keep floor dry to avoid skin diseases. ◆ Swine fever vaccine at the age of 8-

			<p>10 week is recommended.</p> <p>◆ Critical heat detection in early morning and late evening is recommended.</p> <p>◆ Feed 5-10% green fodder of their diet.</p>
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Agro-Met Advisory member of ICAR, Sikkim Centre

Name	Designation	Department
1. Dr. R. K. Avasthe	Joint Director	Soil Science
2. Dr. Homeswar Kalita	Principal Scientist	Entomology
3. Dr. Ashish Yadav	Senior Scientist	Horticulture
4. Dr. Raghavendra Singh	Senior Scientist	Agronomy
5. Dr. Matber Singh	Scientist, SS	Agroforestry
6. Dr. R. Gopi	Scientist, SS	Plant Pathology
7. Dr. Subhash Babu	Scientist	Agronomy
8. Mr. Shaon Kr Das	Scientist	Agril. Chemistry/ Soil Sc.
9. Dr. Brijesh Kumar	Scientist	Animal Reproduction
10. Dr. Mahak Singh	Scientist	Animal Reproduction
11. Mr. Boniface Lepcha	Subject Matter Specialist	Horticulture

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Nodal Officer