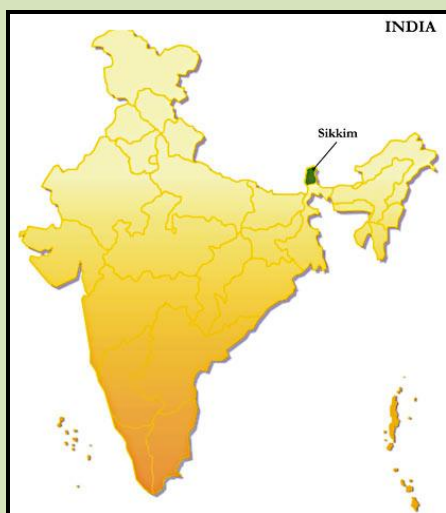




STATE COMPOSITE AGRO-MET ADVISORY BULLETIN FOR THE STATE OF SIKKIM PERIOD: 17TH FEBRUARY'15 – 19TH FEBRUARY'15



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



ISSUED ON “TUESDAY 17TH FEBRUARY’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 Gyalsing
- 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	Partly Cloudy	Generally Cloudy	Generally Cloudy	Partly Cloudy	Partly Cloudy
13-2-2015	007	18.3	08.5	Rainfall	No rain	Light	No rain	No rain	No rain
14-2-2015	000	17.6	07.2	Wind (Speed/ Dir)	2Km/Hr (SSE)	2Km/Hr (SSW)	3Km/Hr (SSE)	2Km/Hr (SW)	4Km/Hr (S)
15-2-2015	001	17.4	09.5	Temperature (Min-Max)	9 - 21°C	9 - 19°C	8 - 18°C	8 - 19°C	9 - 19°C
16-2-2015	000	20.4	07.1	RH (Min-Max)	65 - 85%	75 - 90%	70 - 85%	65 - 80%	60 - 80%

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	Partly Cloudy	Generally Cloudy	Generally Cloudy	Partly Cloudy	Partly Cloudy
13-2-2015	011	13.7	04.5	Rainfall	No rain	Light	No rain	No rain	No rain
14-2-2015	000	11.2	05.6	Wind (Speed/ Dir)	1Km/Hr (ESE)	1Km/Hr (ESE)	2Km/Hr (SSE)	0Km/Hr (ESE)	2Km/Hr (S)
15-2-2015	000	10.5	06.7	Temperature (Min-Max)	8 - 16°C	8 - 14°C	7 - 14°C	7 - 15°C	6 - 14°C
16-2-2015	000	15.4	05.8	RH (Min-Max)	60 - 80%	70 - 90%	65 - 85%	60 - 80%	60 - 80%

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	Partly Cloudy	Partly Cloudy	Generally Cloudy	Partly Cloudy	Partly Cloudy
13-2-2015	002	19.0	06.2	Rainfall	No rain	Light	No rain	No rain	No rain
14-2-2015	000	16.0	06.5	Wind (Speed/ Dir)	2Km/Hr (ESE)	2Km/Hr (SE)	3Km/Hr (SE)	2Km/Hr (SE)	3Km/Hr (SSW)
15-2-2015	002	14.0	09.0	Temperature (Min-Max)	9 - 20°C	9 - 18°C	8 - 17°C	8 - 18°C	8 - 18°C
16-2-2015	000	19.5	07.0	RH (Min-Max)	60 - 80%	65 - 85%	60 - 80%	55 - 75%	50 - 70%




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	Partly Cloudy	Generally Cloudy	Generally Cloudy	Partly Cloudy	Partly Cloudy
13-2-2015	017	15.4	05.2	Rainfall	No rain	Light	No rain	No rain	No rain
14-2-2015	000	14.6	07.0	Wind (Speed/ Dir)	2Km/Hr (ESE)	1Km/Hr (ESE)	2Km/Hr (NE)	1Km/Hr (ESE)	1Km/Hr (SW)
15-2-2015	007	10.1	06.1	Temperature (Min-Max)	7 - 19°C	7 - 17°C	6 - 16°C	6 - 17°C	6 - 17°C
16-2-2015	002	17.3	05.3	RH (Min-Max)	55 - 75%	65 - 85%	60 - 80%	55 - 75%	55 - 75%





Part II



AGRO-METEOROLOGICAL 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.
- ❖ 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
Crops			
Rapeseed and mustard	Flowering /Pod formation stage	Aphid 	<ul style="list-style-type: none"> ❖ One irrigation is recommended to avoid moisture stress. ❖ Remove the infected inflorescence/ pod. ❖ Spray Neem based formulation @3ml/lit for the management of aphid.
Buckwheat	Flowering / grain filling		<ul style="list-style-type: none"> ❖ Regular monitoring of crop.
Garden pea	vegetative/ flowering/ harvesting	Rust  	<ul style="list-style-type: none"> ❖ Hand weeding should be done to reduce the weed pressure. ❖ Weeded plants can be used as surface mulch to conserve soil moisture. ❖ One irrigation is recommended to avoid moisture stress. ❖ Preventive spray with 0.25% wettable sulphur for the management of rust and powdery mildew. ❖ Pod harvesting should be done carefully to avoid plant damage.

		<p>● Powdery mildew Disease</p>  	
Large cardamom	Vegetative/ floral bud formation		<ul style="list-style-type: none"> ◆ Removal and burying of blight infected leaves. ◆ Two irrigations in a month are recommended. ◆ Field sanitation and removal of unproductive tillers.
Ginger	Storage		<ul style="list-style-type: none"> ◆ Harvested rhizome should be dried for two weeks under shade condition and stored in cool and dry place for seed material.
Cole crops	Vegetative/ Harvesting	<p>● Damping off</p>  <p>● Club root</p> 	<ul style="list-style-type: none"> ◆ Drenching with copper oxychloride @ 0.25 % or Bordeaux mixture @ 1% at 10 days interval for the management of damping off and root rot. ◆ Removal of club root infected plant and drenching with copper oxychloride @ 0.25 % or Bordeaux mixture @ 1%. ◆ Application of Neem cake/ mustard oil cake @ 50kg/1000sqm. ◆ 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. ◆ Earthing up for early transplanted crop is recommended. ◆ Over watering should be avoided.

Tomato	Nursery/ vegetative / fruiting	<p>● Late blight of tomato</p> 	<ul style="list-style-type: none"> ◆ Seed should be sown for commercial production in raised bed of 4inches and 1m width. ◆ Seed treatment with <i>Trichoderma viride</i> @ 4g/kg seed. ◆ Soil treatment with <i>Trichoderma viride</i> @ 2.5 kg/50kg FYM or sand. ◆ Bed should be prepared to a fine tilth and incorporate well decomposed FYM @ 2kg/sqm. ◆ Regular watering should be done. ◆ Removal of diseased leaves and branches and weekly spraying of copper oxychloride @ 0.25% for the management of late blight disease.
Potato	vegetative	<p>● Late blight of potato</p> 	<ul style="list-style-type: none"> ◆ Removal of diseased leaves and branches and weekly spraying of copper oxychloride @ 0.25% for the management of late blight disease. ◆ Regular watering should be done ◆ Regular weeding should be done and followed by earthing up.
Sikkim Mandarin	Nursery stage		<ul style="list-style-type: none"> ◆ Seeds of elite mother plant should be sown in raised nursery bed for raising nucellar seedlings. ◆ Nursery bed should be prepared with mixing of sand, FYM and soil at the ratio of 2:1:1. ◆ Diseased and unwanted branches should be removed and spray with copper oxychloride @ 0.25 %. ◆ Well decomposed FYM @ 10-20kg /plant should be applied in the basin of trees. ◆ Avoid FYM application near the tree trunk. ◆ Regular watering should be done.
Kiwi fruit	Training /Pruning		<ul style="list-style-type: none"> ◆ Dormant kiwi fruit plant should be pruned to give proper shape to the vine. ◆ Well decomposed FYM @ 10-20kg /plant should be applied in the basin of trees. ◆ Avoid FYM application near the tree trunk.

Animal Sciences

Tibetan Sheep	Sheared sheep		<ul style="list-style-type: none"> ◆ Provide winter shelter for lambs.
Yak	Pregnancy	Weight gain	<ul style="list-style-type: none"> ◆ Pregnancy diagnosis is recommended. ◆ Feeding of concentrate feed along with mineral mixture and salt. ◆ Provide winter shelter for calves.
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 colostrums within 2 hrs of birth. ◆ Feeding of concentrate feed along with jaggery, mineral mixture and salt. ◆ De-worming with Fenbendazole @ 10 mg / kg body weight.
Poultry	All stages	High humidity	<ul style="list-style-type: none"> ◆ 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. ◆ Ranikhet vaccination at 5th day and at 30th day of age. ◆ Calcium and multi vitamin supplementation is strongly recommended to optimize egg production.
Pig	All stages		<ul style="list-style-type: none"> ◆ Keep floor dry to avoid skin diseases. ◆ De-worming with Fenbendazole @ 10 mg / kg body weight. ◆ Swine fever vaccine at the age of 8-10 week is recommended.