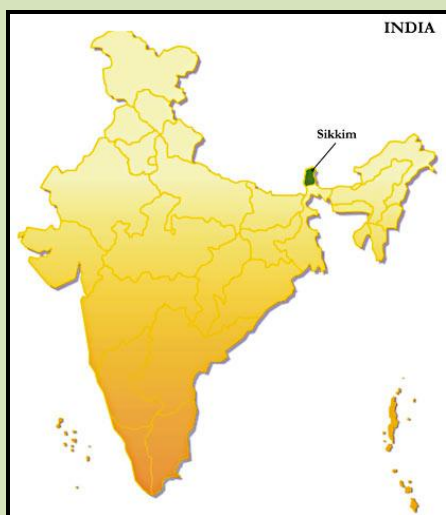




# STATE COMPOSITE AGRO-MET ADVISORY BULLETIN FOR THE STATE OF SIKKIM PERIOD: 9<sup>TH</sup> JUNE'2015 – 11<sup>TH</sup> JUNE'2015



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



**ISSUED ON "TUESDAY 9<sup>TH</sup> JUNE'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 (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
5-6-2015	002	26.5	17.3	Rainfall	Moderate	Moderate	Moderate	Moderate	Moderate
6-6-2015	003	27.5	20.0	Wind (Speed/ Dir)	3Km/Hr (W)	3Km/Hr (S)	4Km/Hr (E)	4Km/Hr (E)	4Km/Hr (S)
7-6-2015	006	27.6	19.4	Temperature (Min-Max)	17 - 26°C	18 - 25°C	18 - 25°C	17 - 26°C	17 - 26°C
8-6-2015	008	26.5	19.6	RH (Min-Max)	65 - 88%	68 - 90%	70 - 92%	70 - 90%	68 - 88%

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	Cloudy
5-6-2015	007	21.9	18.3	Rainfall	Moderate	Moderate	Moderate	Moderate	Moderate
6-6-2015	031	23.5	17.5	Wind (Speed/ Dir)	3Km/Hr (S)	3Km/Hr (SSE)	4Km/Hr (ESE)	4Km/Hr (E)	4Km/Hr (SE)
7-6-2015	011	23.4	18.0	Temperature (Min-Max)	17 - 21°C	17 - 21°C	17 - 21°C	17 - 21°C	17 - 21°C
8-6-2015	103	23.6	17.8	RH (Min-Max)	65 - 92%	66 - 94%	67 - 95%	65 - 92%	68 - 94%

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
5-6-2015	016	27.5	20.5	Rainfall	Moderate	Moderate	Moderate	Moderate	Moderate
6-6-2015	040	29.5	20.0	Wind (Speed/ Dir)	4Km/Hr (S)	4Km/Hr (SSE)	3Km/Hr (E)	3Km/Hr (E)	4Km/Hr (SSE)
7-6-2015	000	29.5	20.0	Temperature (Min-Max)	19 - 28°C	20 - 28°C	20 - 27°C	20 - 27°C	20 - 27°C
8-6-2015	000	30.0	20.5	RH (Min-Max)	62 - 89%	65 - 92%	63 - 90%	65 - 92%	68 - 94%

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
5-6-2015	005	25.0	18.3	Rainfall	Moderate	Moderate	Moderate	Moderate	Moderate
6-6-2015	013	N/A	18.3	Wind (Speed/ Dir)	4Km/Hr (S)	4Km/Hr (SE)	4Km/Hr (ENE)	3Km/Hr (NE)	4Km/Hr (S)
7-6-2015	000	26.3	18.3	Temperature (Min-Max)	18 - 23°C	17 - 22°C	17 - 22°C	17 - 23°C	17 - 22°C
8-6-2015	001	N/A	18.8	RH (Min-Max)	65 - 87%	68 - 92%	70 - 94%	72 - 95%	73 - 95%

## **PART II: CROP DATA**

### **Major standing crops:**

#### **North District:**

##### **(a) High hills (1500 to 2000 mt):**

- *Large Cardamom: Vegetative (Leg Phase) / Primary Flowering/ Secondary Flowering;*
- *Maize: Vegetative / Late Vegetative / Tasseling & Silking;*
- *Seed Potato: Tuberization;*
- *Summer Potato (Very High Hills): Tuberization;*
- *Kharif Vegetable: Late Vegetative;*

##### **(b) Medium hills (1000 to 1500 mt):**

- *Large Cardamom: Vegetative (Leg Phase) / Primary Flowering/Secondary Flowering;*
- *Paddy: Sowing / Nursery Sowing / Early Tillering;*
- *Maize: Late Vegetative / Tasseling & Silking / Flowering & Cob-Filling / Cob Maturity;*
- *Orange: Flowering / Transplantation of Seedlings from Nursery;*
- *Kharif Vegetable: Late Vegetative;*
- *Ginger: Germination / Early Vegetative;*

##### **(c) Low Hills (Below 1000 mt):**

- *Large Cardamom: Vegetative (Leg Phase) / Primary Flowering/ Secondary Flowering;*
- *Paddy: Sowing / Nursery Sowing;*
- *Maize: Late Vegetative/ Tasseling & Silking / Flowering & Cob-Filling / Cob Maturity;*
- *Orange: Flowering / Transplantation of Seedlings from Nursery;*
- *Kharif Vegetable: Late Vegetative;*
- *Ginger: Germination / Early Vegetative;*



## East District:

### (a) High hills (1500 to 2000 mt):

- *Large Cardamom: Vegetative (Leg Phase) / Primary Flowering/ Secondary Flowering;*
- *Maize: Vegetative / Late Vegetative / Tasseling & Silking;*
- *Seed Potato: Tuberization;*
- *Kharif Vegetable: Late Vegetative;*

### (b) Medium hills (1000 to 1500 mt):

- *Large Cardamom: Vegetative (Leg Phase) / Primary Flowering/Secondary Flowering;*
- *Paddy: Sowing / Nursery Sowing / Early Tillering;*
- *Maize: Late Vegetative / Tasseling & Silking / Flowering & Cob-Filling / Cob Maturity;*
- *Orange: Flowering / Transplantation of Seedlings from Nursery;*
- *Kharif Vegetable: Late Vegetative;*
- *Ginger: Germination / Early Vegetative;*

### (c) Low Hills (Below 1000 mt):

- *Large Cardamom: Vegetative (Leg Phase) / Primary Flowering/ Secondary Flowering;*
- *Paddy: Sowing / Nursery Sowing;*
- *Maize: Late Vegetative/ Tasseling & Silking / Flowering & Cob-Filling / Cob Maturity;*
- *Orange: Flowering / Transplantation of Seedlings from Nursery;*
- *Kharif Vegetable: Late Vegetative;*
- *Ginger: Germination / Early Vegetative;*

## South District:

### (a) High hills (1500 to 2000 mt):

- *Large Cardamom: Vegetative (Leg Phase) / Primary Flowering/ Secondary Flowering;*
- *Maize: Vegetative / Late Vegetative / Tasseling & Silking;*
- *Seed Potato: Tuberization;*
- *Kharif Vegetable: Late Vegetative;*

### (b) Medium hills (1000 to 1500 mt):

- *Large Cardamom: Vegetative (Leg Phase) / Primary Flowering/Secondary Flowering;*
- *Paddy: Sowing / Nursery Sowing / Early Tillering;*
- *Maize: Late Vegetative / Tasseling & Silking / Flowering & Cob-Filling / Cob Maturity;*
- *Orange: Flowering / Transplantation of Seedlings from Nursery;*
- *Kharif Vegetable: Late Vegetative;*
- *Ginger: Germination / Early Vegetative;*

### (c) Low Hills (Below 1000 mt):

- *Large Cardamom: Vegetative (Leg Phase) / Primary Flowering/ Secondary Flowering;*
- *Paddy: Sowing / Nursery Sowing;*
- *Maize: Late Vegetative/ Tasseling & Silking / Flowering & Cob-Filling / Cob Maturity;*
- *Orange: Flowering / Transplantation of Seedlings from Nursery;*
- *Kharif Vegetable: Late Vegetative;*
- *Ginger: Germination / Early Vegetative;*



## West District:

### ((a) High hills (1500 to 2000 mt):

- *Large Cardamom: Vegetative (Leg Phase) / Primary Flowering/ Secondary Flowering;*
- *Maize: Vegetative / Late Vegetative / Tasseling & Silking;*
- *Seed Potato: Tuberization;*
- *Kharif Vegetable: Late Vegetative;*

### (b) Medium hills (1000 to 1500 mt):

- *Large Cardamom: Vegetative (Leg Phase) / Primary Flowering/Secondary Flowering;*
- *Paddy: Sowing / Nursery Sowing / Early Tillering;*
- *Maize: Late Vegetative / Tasseling & Silking / Flowering & Cob-Filling / Cob Maturity;*
- *Orange: Flowering / Transplantation of Seedlings from Nursery;*
- *Kharif Vegetable: Late Vegetative;*
- *Ginger: Germination / Early Vegetative;*

### (c) Low Hills (Below 1000 mt):

- *Large Cardamom: Vegetative (Leg Phase) / Primary Flowering/ Secondary Flowering;*
- *Paddy: Sowing / Nursery Sowing;*
- *Maize: Late Vegetative/ Tasseling & Silking / Flowering & Cob-Filling / Cob Maturity;*
- *Orange: Flowering / Transplantation of Seedlings from Nursery;*
- *Kharif Vegetable: Late Vegetative;*
- *Ginger: Germination / Early Vegetative;*

# Agro-meteorological Advisories (District-wise):

## (A) Large Cardamom: (North/East/South/West Districts)

### Nursery

- Planting of sucker in nurseries may be continued. Trenches of the 45 cm width & 30 cm depth may be opened at convenient length with inter space of 30 cm. Well decomposed cattle manure or compost may be mixed with the soil and trenches are filled. Disease free high yielding mother sucker with two tiller may be planted at 45 cm in trenches during June & July and base may be mulched with the forest leaves, to support the sucker bamboo/ wooden stake may be provided.
- Overhead pandals may be erected immediately after planting. Each & every large cardamom farmer should have his own large cardamom high yielding sucker nursery.
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### Plantation

- Large cardamom field meant for replanting/gap filling may be cleared off all weeds and crop debris to protect the crop from secondary infestation of and diseases.
- Gap filling / replanting may be continued up to August.
- Planting materials may select from high yielding sucker nursery free from any pest/disease infestation or disease free high yielding elite garden.
- Chirke and Foorkey infected plant may be destroyed by uprooting/ burial at regular intervals in the pits.
- Regular inspections may be carried out to observe caterpillar/ shoot borer/ shoot fly incidence if any and may be handpicked and destroyed mechanically.



- 1% Bordeaux mixture or copper oxy chloride @ 3gm/liter. Of water may be spread to the cardamom plant to protect from fungal diseases if it is not spread in the month of May.

**(B) Paddy: (North/East/South/West Districts)**

- The seedlings from nursery bed should be transplanted after 20 – 30 days as seedlings older than 30 days reduce yield. The bed should be wet with water 2 – 3 days in advance before uprooting and care must be taken not to cause injury to the root system and a bundle of wet straws should be used to facilitate light uprooting. The roots should be immersed in Azobactor/Nofed Rhizobium and 2 – 3 seedlings planted in rows 20 cm X 15 cm or 15 cm X 15 cm not deeper than 3 – 4 cm. After transplantation, water level 5 – 3 cm maintained as more than 5 cm would damage Bukuna Paddy. During the tillering stage, in the higher hills, water level of 3 – 4 cm should maintained to enable maximum tillering as in case of insufficient water, tillering will be less and facilitate excess growth of weeds.

**(C) Maize: (North/East/South/West Districts)**

- Weeding to be done for the second time before initiation of corn & cob and earthing up thereafter, so that the plants do not fall down during strong wind and top dressed with FYM/Compost.

**(D) Seed(Kharif) Potato: (North/East/South/West Districts)**

- Weeding to be done properly after 20 – 40 days of sowing when the plants are 10 – 15 cm high and 60 – 70 days thereafter, and FYM compost applied after each weeding.

**(E) Kharif Vegetables: (North/East/South/West Districts)**

- The loose soil of seedlings of Tomato, Chilly, Capsicum and Brinjal transplanted in the mid and upper terraces should be packed tightly and enough shade provided during bright sunshine. Also the climbing plants Viz. Pumpkin, Gourd, Bitter Gourd, Snake Gourd, Cucumber etc in the lower most terraces must be given proper supporting structure. The aforesaid crops along with Ladies finger must be weeded and top dressing done with FYM compost on monthly basis.

**(F) Ginger: (North/East/South/West Districts)**

- Top dressing with organic manure and mulching to be done. Proper drainage to be maintained in the drains between one foot high crop beds, in order to protect the crop from rhizome rot during spells of heavy rain. The crop should be inspected weekly and frequently during heavy rains and diseased plants affected by bacterial etc. will be rogued and burnt well outside the field to protect the other plants. Weeding should not be done on rainy days.

**(G) Orange: (North/East/South/West Districts)**

- Seedling each planted in May, June & July. The triangular/rectangular pits already dug in winter should be filled with 15Kg organic manure and compost and mixed with soil in equal ratio and seedling planted up to the level of extricated roots, otherwise the tips would rot easily and allowance made for enough air and sunlight, otherwise the plant would be prone to diseases and irrigation done immediately thereafter. The plant should be irrigated during dry spells. The orchards must be inspected from time to time and plugging of trunk borer holes repeated and sprouts emerging out of the trunks removed. De-shooting/debugging of newly planted and 1-4 years old trees up to a basal height of 40 – 50 cm done on monthly intervals.