

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



PERIOD: 10<sup>TH</sup> FEBRUARY TO 13<sup>TH</sup> FEBRUARY'2017

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





#### ISSUED ON FRIDAY 10<sup>TH</sup> FEBRUARY'2017

## 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

| Maragara (DTO) |          |           | North Sikkim Forecast |                                 |          |          |          |          |          |  |
|----------------|----------|-----------|-----------------------|---------------------------------|----------|----------|----------|----------|----------|--|
| Mangan (PTO)   |          |           | Day →<br>Parameter↓   | Day 1                           | Day 2    | Day 3    | Day 4    | Day 5    |          |  |
| Date           | Rainfall | Max. Temp | Min. Temp             | Sky<br>Condition                | Cloudy   | Cloudy   | Cloudy   | Cloudy   | Cloudy   |  |
| Date           | (mm)     | (°C)      | (°C)                  | Rainfall                        | No rain  |  |
| 7-2-2017       | 000      | 19.4      | 09.5                  | Wind<br>(Km/Hr)<br>(Speed/ Dir) | 2(SSW)   | 3(SSW)   | 3(SSW)   | 2(SSW)   | 3(SSE)   |  |
| 8-2-2017       | 000      | 20.3      | 09.3                  | Temperature (Min-Max)           | 9 - 20°C | 9 - 20°C | 8 - 19°C | 8 - 19°C | 9 - 19°C |  |
| 9-2-2017       | 000      | 20.4      | 09.5                  | RH (Min-<br>Max)                | 57 - 84% | 58 - 85% | 56 - 85% | 58 - 83% | 57 - 83% |  |

| Congtoly |          |           | East Sikkim Forecast |                                 |                     |                  |                  |                  |                  |  |
|----------|----------|-----------|----------------------|---------------------------------|---------------------|------------------|------------------|------------------|------------------|--|
|          | Gangtok  |           |                      | Day →<br>Parameter↓             | Day 1               | Day 2            | Day 3            | Day 4            | Day 5            |  |
| Date     | Rainfall | Max. Temp | Min. Temp            | Sky<br>Condition                | Generally<br>Cloudy | Partly<br>Cloudy | Partly<br>Cloudy | Partly<br>Cloudy | Partly<br>Cloudy |  |
| Date     | (mm)     | (°C)      | (°C)                 | Rainfall                        | No rain             | No rain          | No rain          | No rain          | No rain          |  |
| 7-2-2017 | 000      | 16.3      | 07.7                 | Wind<br>(Km/Hr)<br>(Speed/ Dir) | 2(S)                | 2(SSE)           | 3(S)             | 3(S)             | 3(ESE)           |  |
| 8-2-2017 | 000      | 14.5      | 10.2                 | Temperature (Min-Max)           | 9 - 17°C            | 9 - 17°C         | 8 - 17°C         | 9 - 16°C         | 9 - 16°C         |  |
| 9-2-2017 | 000      | 17.0      | 10.0                 | RH (Min-<br>Max)                | 60 - 87%            | 61 - 88%         | 60 - 85%         | 59 - 86%         | 62 - 85%         |  |

| Namthana |                    | South Sikkim Forecast |                     |                                 |                  |                 |          |          |           |
|----------|--------------------|-----------------------|---------------------|---------------------------------|------------------|-----------------|----------|----------|-----------|
| Namthang |                    |                       | Day →<br>Parameter↓ | Day 1                           | Day 2            | Day 3           | Day 4    | Day 5    |           |
| Date     | Rainfall Max. Temp | Min. Temp             | Sky<br>Condition    |                                 | Partly<br>Cloudy | Mainly<br>Clear |          |          |           |
| Date     | (mm)               | (°C)                  | (°C)                | Rainfall                        | No rain          | No rain         | No rain  | No rain  | No rain   |
| 7-2-2017 | 000                | 20.5                  | 09.5                | Wind<br>(Km/Hr)<br>(Speed/ Dir) | 2(SSW)           | 3(S)            | 3(SSW)   | 3(SSW)   | 2(ESE)    |
| 8-2-2017 | 000                | 19.5                  | 10.0                | Temperature (Min-Max)           | 10 - 20°C        | 9 - 20°C        | 9 - 19°C | 9 - 19°C | 10 - 19°C |
| 9-2-2017 | 000                | 19.0                  | 10.5                | RH (Min-<br>Max)                | 58 - 87%         | 59 - 85%        | 60 - 85% | 60 - 86% | 58 - 85%  |

| Cyclobing (AWS) |                 |           | West Sikkim Forecast |                                 |                     |                     |                  |                  |                 |
|-----------------|-----------------|-----------|----------------------|---------------------------------|---------------------|---------------------|------------------|------------------|-----------------|
|                 | Gyalshing (AWS) |           |                      | Day →<br>Parameter↓             | Day 1               | Day 2               | Day 3            | Day 4            | Day 5           |
| Date            | Rainfall        | Max. Temp | Min. Temp            | Sky<br>Condition                | Generally<br>Cloudy | Generally<br>Cloudy | Partly<br>Cloudy | Partly<br>Cloudy | Mainly<br>Clear |
| Date            | (mm)            | (°C)      | (°C)                 | Rainfall                        | No rain             | No rain             | No rain          | No rain          | No rain         |
| 7-2-2017        | N/A             | N/A       | N/A                  | Wind<br>(Km/Hr)<br>(Speed/ Dir) | 2(WSW)              | 3(SSW)              | 2(W)             | 2(W)             | 3(ENE)          |
| 8-2-2017        | N/A             | N/A       | N/A                  | Temperature (Min-Max)           | 10 - 19°C           | 10 - 19°C           | 9 - 18°C         | 9 - 18°C         | 10 - 18°C       |
| 9-2-2017        | N/A             | N/A       | N/A                  | RH (Min-<br>Max)                | 52 - 82%            | 51 - 84%            | 51 - 84%         | 52 - 85%         | 54 - 83%        |

## **Part II**

## AGRO-METEREOLOGICAL ADVISORIES

### **General Advisories for all the crops**

- 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.
- Jalkund should be covered with thatch to prevent evaporation losses.
- 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.
- Avoid feeding of damp and foul smelling feed to all livestock and poultry.
- De-worming with Fenbendazole @ 10 mg / kg body weight.
- Protect animals from cold by providing protective cover/ house and light.

| Name of the crop/Animal | Stage                    | Pest/ Disease | Agro-Met Advisories   |
|-------------------------|--------------------------|---------------|---|
| Crops                   |                          |               |   |
| Buckwheat               | Grain filling            |               | Regular monitoring of crop.   |
| Mustard/ Toria          | Flowering/pod filling    | Aphid         | For management of aphid, spray petroleum agro spray @ 10 ml/l or neem oil (1500ppm) @ 4ml/l.  |
| Garden pea              | Fruiting/Picking         |               | <ul> <li>Soil moisture should be maintained for good growth and yield.</li> <li>Cautious picking should be done to avoid plant damage.</li> </ul>   |
| Tomato                  | Fruiting /<br>Harvesting | Late Blight   | <ul> <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> |

| Winter vegetables (Cole crops) | Vegetative                   | <ul> <li>Regular monitoring for pest and disease incidence and collection and destruction of egg, larva, pupa and adult.</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 litre, 2 litre 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> |
|--------------------------------|------------------------------|--|
| Large<br>cardamom              | Post harvest crop management | <ul> <li>Regular watering should be done at 15 – 30 days intervals.</li> <li>Regular monitoring for pest and disease incidence.</li> <li>Shade management with the proper lopping of trees.</li> </ul>   |
| Ginger                         | Storage                      | <ul> <li>Identify healthy plants for seed rhizomes.</li> <li>Care should be taken during harvesting to avoid the mechanical injury in the rhizome.</li> <li>Selected rhizomes for planting material should be kept in partial should be collected well in advance as mulching material.</li> </ul>   |
| Sikkim<br>Mandarin             | Training and Pruning         | <ul> <li>Diseased and senile branches should be removed.</li> <li>Remove all the fruits from trees and the fruits dropped in the basin of tree and the orchard.</li> <li>Basin maintenance and manuring with FYM @ 30 -35 kg/tree should be done. Avoid application of FYM close to the trunk</li> </ul>   |
| Kiwi fruit  Animal Sciences    | Pruning and<br>Training      | <ul> <li>Pruning of unwanted vegetative growth should be done.</li> <li>Manuring with FYM @ 10-15 kg/plant should be done.</li> </ul>  |

| Tibetan Sheep             |                                | <b>*</b>                      | Feeding of concentrate feed along with mineral mixture and salt.  |
|---------------------------|--------------------------------|-------------------------------|---|
|                           |                                |                               | Hay feeding is recommended.   |
| Yak                       |                                |                               | Feeding of concentrate feed along with mineral mixture and salt.  Hay feeding is recommended.   |
| Cattle, Sheep<br>and Goat |                                | •                             | 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.  Feeding of concentrate feed along with jaggery, mineral mixture and   |
|                           |                                | •                             | salt.  Periodic application of fly repellents and/ or netting of dung pit are recommended.  |
| Cattle                    |                                | •                             | 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.  Afterwards complete milking in a day is recommended.   |
| Poultry                   | Cocciodiosis, Ranikhet disease | <ul><li> </li><li> </li></ul> | 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 cocciodiosis.  Maintenance of brooder temperature for chicks with the help of electrical bulbs for initial one month.  Ranikhet vaccination at 5 <sup>th</sup> day and at 30 <sup>th</sup> day of age.  Calcium/shell grit and multi vitamin supplementation is strongly recommended to optimize egg production. |

|     |            |             | • | Spraying of ectoparasiticides <i>viz.</i> , deltamethrin/cypermethrin @ 1% v/v in water.  |
|-----|------------|-------------|---|---|
| Pig | All stages | Swine fever | • | Keep floor dry to avoid skin diseases.  Swine fever vaccine at the age of 8- 10 week is recommended.  Critical heat detection in early morning and late evening is recommended.  Feed 5-10% green fodder of their diet. |