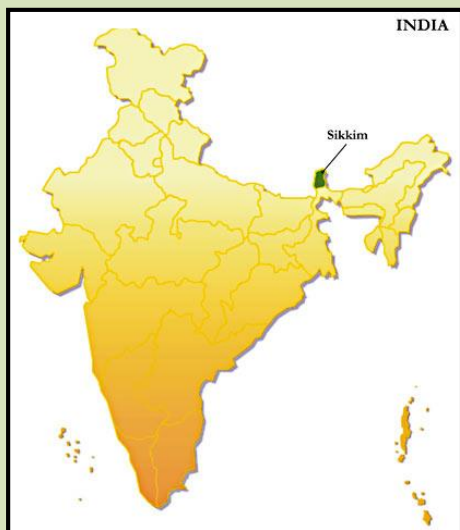




STATE COMPOSITE AGRO-MET ADVISORY BULLETIN FOR THE STATE OF SIKKIM PERIOD: 17th to 20th JULY 2015



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



ISSUED ON “FRIDAY 17TH JULY 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 | | | | | |
|--------------|------------------|-------------------|-------------------|---------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | | | | Day → Parameter ↓ | Day 1 | Day 2 | Day 3 | Day 4 | Day 5 |
| Date | Rainfall (mm) | Max. Temp (°C) | Min. Temp (°C) | Sky Condition | Generally Cloudy | Generally Cloudy | Generally Cloudy | Generally Cloudy | Generally Cloudy |
| | | | | Rainfall | Moderate | Light | Moderate | Moderate | Moderate |
| 14-7-2015 | 068 | 28.4 | 21.6 | Wind (Km/Hr) (Speed/ Dir) | 2(E) | 2(E) | 2(E) | 2(SW) | 2(WSW) |
| 15-7-2015 | 005 | 27.3 | 20.7 | Temperature (Min-Max) | 20 - 29°C | 20 - 28°C | 20 - 27°C | 20 - 28°C | 20 - 28°C |
| 16-7-2015 | 007 | 27.4 | 18.4 | RH (Min- Max) | 75 - 88% | 78 - 90% | 78 - 93% | 82 - 95% | 82 - 95% |

| Gangtok | | | | East Sikkim Forecast | | | | | |
|-----------|------------------|-------------------|-------------------|---------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | | | | Day → Parameter ↓ | Day 1 | Day 2 | Day 3 | Day 4 | Day 5 |
| Date | Rainfall (mm) | Max. Temp (°C) | Min. Temp (°C) | Sky Condition | Generally Cloudy | Generally Cloudy | Generally Cloudy | Generally Cloudy | Generally Cloudy |
| | | | | Rainfall | Moderate | Moderate | Moderate | Moderate | Moderate |
| 14-7-2015 | 011 | 21.5 | 19.6 | Wind (Km/Hr) (Speed/ Dir) | 3(ESE) | 3(ESE) | 2(SE) | 2(S) | 2(SW) |
| 15-7-2015 | 052 | 20.3 | 19.4 | Temperature (Min-Max) | 18 - 23°C | 18 - 23°C | 18 - 22°C | 18 - 22°C | 18 - 22°C |
| 16-7-2015 | 035 | 20.0 | 18.5 | RH (Min- Max) | 78 - 92% | 76 - 90% | 80 - 90% | 85 - 95% | 85 - 96% |

| Namthang | | | | South Sikkim Forecast | | | | | |
|-----------|------------------|-------------------|-------------------|---------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | | | | Day → Parameter ↓ | Day 1 | Day 2 | Day 3 | Day 4 | Day 5 |
| Date | Rainfall (mm) | Max. Temp (°C) | Min. Temp (°C) | Sky Condition | Generally Cloudy | Generally Cloudy | Generally Cloudy | Generally Cloudy | Generally Cloudy |
| | | | | Rainfall | Moderate | Moderate | Moderate | Moderate | Moderate |
| 14-7-2015 | 001 | 28.0 | 25.0 | Wind (Km/Hr) (Speed/ Dir) | 3(E) | 3(E) | 2(ESE) | 2(S) | 2(SW) |
| 15-7-2015 | 057 | 27.5 | 21.5 | Temperature (Min-Max) | 20 - 28°C | 20 - 28°C | 20 - 27°C | 20 - 26°C | 20 - 26°C |
| 16-7-2015 | 010 | 25.9 | 20.5 | RH (Min- Max) | 70 - 87% | 75 - 86% | 78 - 92% | 82 - 95% | 82 - 96% |

| Gyalshing (AWS) | | | | West Sikkim Forecast | | | | | |
|-----------------|------------------|-------------------|-------------------|---------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | | | | Day → Parameter ↓ | Day 1 | Day 2 | Day 3 | Day 4 | Day 5 |
| Date | Rainfall (mm) | Max. Temp (°C) | Min. Temp (°C) | Sky Condition | Generally Cloudy | Generally Cloudy | Generally Cloudy | Generally Cloudy | Generally Cloudy |
| | | | | Rainfall | Light | Light | Moderate | Light | Moderate |
| 14-7-2015 | 033 | 22.6 | 19.4 | Wind (Km/Hr) (Speed/ Dir) | 3(ENE) | 4(ENE) | 3(E) | 2(S) | 2(WSW) |
| 15-7-2015 | 004 | N/A | 19.4 | Temperature (Min-Max) | 18 - 27°C | 18 - 26°C | 18 - 25°C | 18 - 26°C | 18 - 25°C |
| 16-7-2015 | 007 | 23.4 | 18.4 | RH (Min- Max) | 73 - 88% | 75 - 90% | 78 - 90% | 80 - 92% | 85 - 95% |



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 (neem based formulation @ 3-5ml/l of water and petroleum oil based agro spray @ 7ml/l) on bright sunny day.
- ❖ Ensure proper drainage to avoid water logging especially for ginger, turmeric and kharif vegetables.
- ❖ Weeding should be done between 15-45 days after sowing/ planting of the crop.
- ❖ 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> | | | |
| Maize | Harvesting | | <ul style="list-style-type: none">❖ Harvesting of maize for green cobs should be done in the morning hours.❖ After harvest of green cobs, stover may be used as livestock fodder.❖ Maintain proper drainage for maize crop being grown for grain and seed purpose. |
| Rice | Direct sowing/ Transplanting | | <ul style="list-style-type: none">❖ Land should be prepared for direct sowing/transplanting.❖ Proper maintenance of field channel and bunds are necessary to utilize the rain water.❖ Well decomposed FYM/poultry manure/ vermicompost or other available organic sources of nutrients may be broadcast and incorporated by ploughing.❖ Maintain proper spacing of 20 x 15 cm for conventional rice and 20 x 20 cm under modified SRI.❖ Weeding should be done where crop |

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| | | | <p>is in vegetative stage (20-25 days after planting).</p> <ul style="list-style-type: none"> ◆ Uprooted weeds may be left in between rows to decompose in standing flood water. Weeds may be incorporated into the soil under SRI. |
| Rice bean | Vegetative stage | <p>Blister Beetle</p>  <p>Legume pod borer</p> | <ul style="list-style-type: none"> ◆ Proper staking should be done. ◆ Collection and destruction of Blister beetles and spraying of Neem oil @3ml/lit should be done. |
| Soybean | Sowing/ Vegetative stage | | <ul style="list-style-type: none"> ◆ Variety PK-1024 and PK-1042 may be used for the late sowing (upto 1st fortnight of August) ◆ Well decomposed FYM @ 5 t/ha or vermicompost @ 1 t/ha and dolomite @ 2 t/ha should be incorporated in the soil at the time last ploughing. ◆ Before sowing seed should be inoculated with <i>Rhizobium</i> culture @ 20 g/kg seed ◆ Sowing on ridges is recommended. |
| Black gram/ Green gram | Sowing/ vegetative stage | <p>Blister Beetle</p>  | <ul style="list-style-type: none"> ◆ Well decomposed FYM @ 5 t/ha or vermicompost @ 1 t/ha and dolomite @ 2 t/ha should be incorporated in the soil at the time last ploughing. ◆ Before sowing seed should be inoculated with <i>Rhizobium</i> culture @ 20 g/kg seed. ◆ Timely sowing on ridges is recommended. ◆ Collection and destruction of Blister beetles and spraying of Neem oil @3ml/lit should be done. |
| Finger Millet | Transplanting | | <ul style="list-style-type: none"> ◆ Land should be prepared for transplanting. ◆ Proper maintenance of field channel and bunds are necessary to utilize the rain water. ◆ Well decomposed FYM/poultry manure/ vermicompost or other available organic sources of nutrients |

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| | | | <p>may be broadcast and incorporated by ploughing.</p> <ul style="list-style-type: none"> ◆ Maintain proper spacing of 20 x 15 cm |
| Tomato | Flowering/ fruiting | <p>Late Blight</p>  <p>Fruit borer</p> <p>White fly</p> | <ul style="list-style-type: none"> ◆ Removal of infected leaves/ plant and drenching/ spray with copper oxychloride @ 0.25 % or Bordeaux mixture @ 1%. ◆ Installation of para pheromone trap (cue lure) @ 16-20 traps/ha for fruit borer. ◆ Spraying of Spinosad 45SC @ 0.3 ml/l at 20 days interval for fruit borers. ◆ Spraying of petroleum oil based agro spray @ 7ml/l on bright sunny day. ◆ Harvesting of mature green tomato should be done for distant market and pinkish/ reddish for local market. |
| Gourds (Bottle/ bitter/ sponge/ ridge) | 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. |
| 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 | Vegetative/ floral bud formation | | <ul style="list-style-type: none"> ◆ Planting of disease free sucker should be done. ◆ Apply well decomposed FYM @ 2kg/ vermicompost @ 200g and neem cake @ 150g per clump. ◆ Removal and burying of blight infected leaves. ◆ Weeding/ removal of infected tillers should be done. ◆ Removal of infected leaves/ plant and spray with copper oxychloride @ 0.25 %. |

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| Ginger | Vegetative | Soft rot | <ul style="list-style-type: none"> ◆ Weeding and second mulching is recommended. ◆ Second dose of organic manure may be applied along with earthing up. ◆ Removal of infected leaves/ plant and drenching/ spray with copper oxychloride @ 0.25 %. |
| Sikkim Mandarin | Vegetative / active fruit growth | Scab  Leaf miner  Aphid  | <ul style="list-style-type: none"> ◆ Basin should be weed free. ◆ Avoid FYM application near the tree trunk. ◆ To fertilize the crop, well decomposed FYM @ 10-20kg /plant should be applied in the basin of trees. ◆ Removal of infected leaves and spray with 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 | Vegetative / active fruit growth | | <ul style="list-style-type: none"> ◆ Regular weeding should be practiced. ◆ Avoid FYM application near the tree trunk. ◆ To fertilize the crop, well decomposed FYM @ 10-20kg /plant should be applied in the basin of trees. ◆ Preventive spray with copper oxychloride @ 0.25 % and petroleum oil based agro spray @ 10 ml/l. |

Animal Sciences

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|---------------|-----------------|--|--|
| Tibetan Sheep | Full wool grown | | <ul style="list-style-type: none"> ◆ Shearing is recommended on bright sunny day. ◆ Deworming of newly born lambs and ewes should be done with Fenbendazole @ 10mg/kg body weight. |
|---------------|-----------------|--|--|

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|------------------------|-----------------|-------------|---|
| Yak | Full grown hair | | <ul style="list-style-type: none"> ◆ Trimming of full grown coarse hair is recommended. ◆ Feeding of concentrate feed along with mineral mixture and salt. |
| 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. ◆ Periodic application of fly repellents and/ or netting of dung pit is recommended. |
| 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. ◆ 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 | Swine fever | <ul style="list-style-type: none"> ◆ 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. |