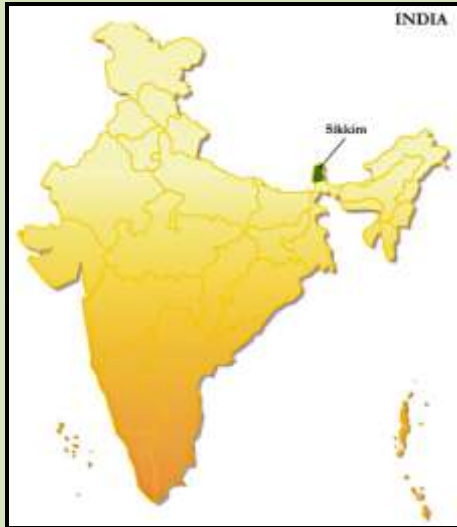




STATE COMPOSITE AGRO-MET ADVISORY BULLETIN FOR THE STATE OF SIKKIM PERIOD: 01ST AUGUST' TO 03RD AUGUST'2017



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



ISSUED ON TUESDAY 01ST AUGUST'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

| 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 | Cloudy | Generally Cloudy | Generally Cloudy | Generally Cloudy |
| 28/7/2017 | 005 | 28.4 | 19.2 | Rainfall | Moderate | Moderate | Light | Light | Light |
| 29/7/2017 | 010 | 29.3 | 19.2 | Wind (Speed/ Dir) | 2Km/Hr (SSW) | 2Km/Hr (SSW) | 2Km/Hr (SSW) | 2Km/Hr (S) | 3Km/Hr (S) |
| 30/7/2017 | 014 | 29.2 | 19.4 | Temperature (Min-Max) | 18 - 28°C | 18 - 27°C | 18 - 27°C | 19 - 28°C | 19 - 26°C |
| 31/7/2017 | 005 | 28.3 | 19.3 | RH (Min-Max) | 74 - 90% | 77 - 92% | 76 - 90% | 78 - 88% | 77 - 87% |

| 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 | Cloudy | Generally Cloudy | Generally Cloudy | Generally Cloudy |
| 28/7/2017 | 003 | 24.0 | 17.8 | Rainfall | Moderate | Moderate | Light | Light | Light |
| 29/7/2017 | 003 | 20.2 | 18.0 | Wind (Speed/ Dir) | 2Km/Hr (E) | 3Km/Hr (ESE) | 2Km/Hr (E) | 2Km/Hr (E) | 3Km/Hr (ESE) |
| 30/7/2017 | 015 | 23.5 | 17.8 | Temperature (Min-Max) | 19 - 23°C | 18 - 22°C | 19 - 23°C | 19 - 23°C | 19 - 24°C |
| 31/7/2017 | 003 | 24.0 | 18.4 | RH (Min-Max) | 81 - 92% | 81 - 93% | 78 - 90% | 76 - 89% | 77 - 88% |
| | | | | | | | | | |

| 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 |
| 28/7/2017 | 015 | 27.5 | 21.0 | Rainfall | Light | Light | Light | Light | Light |
| 29/7/2017 | 001 | 25.0 | 21.0 | Wind (Speed/ Dir) | 3Km/Hr (ESE) | 2Km/Hr (SE) | 2Km/Hr (SE) | 3Km/Hr (ESE) | 3Km/Hr (SE) |
| 30/7/2017 | 007 | 29.5 | 21.5 | Temperature (Min-Max) | 22 - 29°C | 21 - 28°C | 22 - 28°C | 22 - 29°C | 21 - 29°C |
| 31/7/2017 | 002 | 29.0 | 22.5 | RH (Min-Max) | 80 - 92% | 81 - 92% | 78 - 90% | 77 - 88% | 77 - 88% |

| 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 |
| 28/7/2017 | N/A | N/A | N/A | Rainfall | Moderate | Light | Light | Light | Light |
| 29/7/2017 | N/A | N/A | N/A | Wind (Speed/ Dir) | 2Km/Hr (ESE) | 2Km/Hr (SSE) | 3Km/Hr (SE) | 2Km/Hr (SE) | 2Km/Hr (SSE) |
| 30/7/2017 | N/A | N/A | N/A | Temperature (Min-Max) | 20 - 24°C | 19 - 23°C | 20 - 24°C | 20 - 24°C | 20 - 25°C |
| 31/7/2017 | N/A | N/A | N/A | RH (Min-Max) | 80 - 92% | 77 - 88% | 74 - 87% | 75 - 87% | 75 - 88% |

Heavy rain is likely to occur at isolated places over the state during Day1(01.08.2017) and Day2(02.08.2017).

Part II

AGRO-METEOROLOGICAL ADVISORIES

- ❖ Spraying of plant protection biopesticides on bright sunny day for insect and disease management is recommended.
- ❖ Water harvesting structure should be constructed for storing rain water.
- ❖ Provide adequate drainage to avoid water logging in ginger, turmeric and summer vegetables.
- ❖ Vermicompost pits should be covered with gunny bags / weed biomass/ dry forest litter/ domestic and farm waste and kept moist by providing water at weekly interval.
- ❖ Avoid feeding of damp and foul smelling feed to all livestock and poultry.
- ❖ FMD Vaccination is strongly recommended for all livestock. Farmers may please contact nearest veterinary hospital/institution/V.O. for the vaccination
- ❖ De-worming with Fenbendazole @ 10 mg / kg body weight.
- ❖ Keep the Vanaraja chicks in warm condition (32-33°C at chick height) during the first four weeks. The floor should be covered with paddy husk (15 cm). Newspaper should be spread over the paddy husk during first 3-4 days. Starter feed should be spread over the newspaper.
- ❖ Regular raking of the floor litter should be done at an interval of 10 days. Lime powder application is recommended to prevent dampness. Excessive moist floor litter materials should be removed and replaced with fresh materials.
- ❖ Regular vaccination of Vanaraja birds: Lasota vaccine; 5-7 day old chicks in one eye. IBV vaccine; orally or in drinking water on 16 and 26 day old chicks. Lasota vaccine: 30 day old chicks in one eye.

| Name of the crop/Animal | Stage | Pest/ Disease | Agro-Met Advisories |
|-------------------------|------------------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Crops | | | |
| Maize | After Harvesting | | ❖ Grain should be stored properly after sun drying at moisture content 14 percent. |
| Rice | Transplanting/ vegetative stage | | ❖ Transplant two seedling of three weeks age at spacing of 20 × 10 cm. ❖ Hand weeding should be done 20 days after planting |
| Black gram | Land preparation/ sowing | | ❖ After harvesting of maize plough the land and apply well decomposed FYM @ 2.0 ton/ ha + vermicompost 0.5 ton/ha + neem cake 100 kg/ha ❖ Sow the seeds at spacing of 30-45 cm × 15 cm. ❖ Seed treatment with <i>Trichoderma</i> sp. @ 5-10 g/kg seed and soil treatment @ 2.5 kg mixed with 50 kg FYM is |

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| | | | recommended. |
| Soybean | Land preparation/ sowing | | <ul style="list-style-type: none"> ◆ After harvesting of maize plough the land and apply well decomposed FYM @ 2.0 ton/ ha, vermicompost 0.5 ton/ha and neem cake 100 kg/ha ◆ Sow the seeds at spacing of 45 cm × 15 cm. ◆ Seed treatment with <i>Trichoderma</i> sp. @ 5-10 g/kg seed and soil treatment @ 2.5 kg mixed with 50 kg FYM is recommended. |
| Tomato | Fruiting/ harvesting | Fruit borer/ white fly/ late blight | <ul style="list-style-type: none"> ◆ Infected/dried leaves should be pruned and spray COC @ 0.25% at 7-10 days interval for management of late blight. ◆ Application of petroleum agrospray @ 10ml/litre or neem oil (1500 ppm) @ 5 ml/litre for management of aphids, white fly etc. at 15 days interval for 2-3 times. ◆ Installation of sex pheromone traps @ 2-3 traps/1000 sqm. |
| Red cherry pepper | Vegetative/ flowering/ fruiting | Aphid/ white fly | <ul style="list-style-type: none"> ◆ Drenching with COC @ 0.25% at 7-10 days interval for management of root rot. ◆ Application of petroleum agrospray @ 10ml/litre or neem oil (1500 ppm) @ 5 ml/litre for management of aphids, white fly etc. at 15 days interval for 2-3 times. |
| Okra Cucurbitaceous crops | Flowering/ fruiting/ harvesting | Blister beetle/ fruit fly | <ul style="list-style-type: none"> ◆ Proper drainage should be ensured. ◆ Regular monitoring, collection and destruction of beetles. ◆ Install pheromone traps @ 16-20 traps/ha for control of fruit fly. The lure has to be replaced at every 20 days interval. ◆ Collect and destroy the infected fruits. |
| Large cardamom | Fruiting | Tea mosquito bug | <ul style="list-style-type: none"> ◆ Shade management with the proper lopping of trees. |
| Turmeric | Vegetative | | <ul style="list-style-type: none"> ◆ Proper drainage should be ensured. ◆ Hand weeding at 15 days interval. |

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| Ginger | Vegetative | Soft rot | <ul style="list-style-type: none"> ◆ Proper drainage should be ensured. ◆ Hand weeding at 15 days interval. ◆ Drenching with COC @ 0.25% at 7-10 days interval for management of soft rot. ◆ Disease infected plants should be removed immediately and destroyed. |
| Sikkim mandarin | Fruit growth | Trunk borer/ leaf miner Scab and Felt disease | <ul style="list-style-type: none"> ◆ Tree trunk should be painted with 1% Bordeaux paste. ◆ Plant basin should be kept weed free. ◆ Proper drainage should be ensured. ◆ For leaf miner and aphids management, application of petroleum agrospray @ 10ml/litre or neem oil (1500 ppm) @ 5 ml/litre at 15 days interval for 2-3 times is recommended. ◆ Spray COC @ 0.25% after removing the infected branches ◆ Regular monitoring for detection of trunk borer infestation at the base of the trunk is advised. If wooden frass is observed, cleaning and insertion of cotton soaked in kerosene and plastered with clay and cowdung mixture. |
| Kiwifruit | Fruiting | | <ul style="list-style-type: none"> ◆ Plant basin should be kept weed free. ◆ Proper drainage should be ensured. |
| Animal Sciences | | | |
| Tibetan Sheep | | | <ul style="list-style-type: none"> ◆ Feeding of concentrate feed along with mineral mixture and salt. ◆ Hay feeding is recommended. |
| Yak | | | <ul style="list-style-type: none"> ◆ Feeding of concentrate feed along with mineral mixture and salt. ◆ Hay feeding is recommended. ◆ Trimming of hair is recommended. |
| Cattle, Sheep and Goat | | | <ul style="list-style-type: none"> ◆ Farmers are advised to look for heat sign especially during early morning or late evening and ensure breeding of the dairy cattle 12 hr after observation of heat. ◆ Breeding of the sheep/goat should be done 24-30 hr after observation of heat. ◆ Feeding of concentrate feed along with jaggery, mineral mixture and |

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| | | | <p>salt.</p> <ul style="list-style-type: none"> ◆ Periodic application of fly repellents and/or netting of dung pit are recommended. |
| Cattle | | | <ul style="list-style-type: none"> ◆ Balanced feeding of dairy animals and allow calf suckling immediately after parturition. Colostrum (first three days milk) feeding to new born calf for first three days of life should be ensured. ◆ 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 | | Coccidiosis, Ranikhet disease | <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/shell grit and multi vitamin supplementation is strongly recommended to optimize egg production. ◆ Spraying of ectoparasiticides viz., deltamethrin/cypermethrin @ 1% v/v in water. |
| Pig | All stages | Swine fever | <ul style="list-style-type: none"> ◆ Keep floor dry to avoid skin diseases. ◆ Weaning is recommended at the age of 8 weeks for crossbreds and 10 weeks for indigenous pigs. ◆ 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.

Agro-Met Advisory member of ICAR-NOFRI Tadong, Sikkim

| Name | Designation | Department |
|--------------------------|---------------------------|---------------------|
| 1. Dr. R. K. Avasthe | Joint Director | Soil Science |
| 2. Dr. Ashish Yadav | Senior Scientist | Horticulture |
| 3. Dr. Raghavendra Singh | Senior Scientist | Agronomy |
| 4. Dr. Rafiqul Islam | Senior Scientist | Animal Reproduction |
| 5. Dr. Matber Singh | Scientist, SS | Agro forestry |
| 6. Dr. Brijesh Kumar | Scientist | Animal Reproduction |
| 7. Dr. Shweta Singh | Scientist | Plant Pathology |
| 8. Dr. Chandramani Raj | Scientist | Plant Pathology |
| 9. Mr. Boniface Lepcha | Subject Matter Specialist | Horticulture |

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