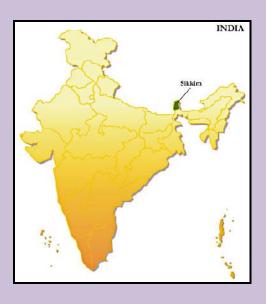


AGRO-MET ADVISORY BULLETIN FOR THE DISTRICT OF EAST SIKKIM PERIOD:

20th NOVEMBER' to 24th NOVEMBER' 2019

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





ISSUED ON 19th November 2019

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

Value Added forecast for EAST-DISTRICT for next five days

| Parameter/Date | 20/11/2019 | 21/11/2019 | 22/11/2019 | 23/11/2019 | 24/11/2019 |
|----------------------------|------------------|------------------|------------------|------------------|-----------------|
| Rainfall (mm) | Very light rain | No rain | No rain | No rain | No rain |
| Max Temp (⁰ C) | 16 | 18 | 18 | 19 | 19 |
| Min Temp (⁰ C) | 12 | 12 | 12 | 12 | 12 |
| Sky condition | Generally cloudy | Generally cloudy | Generally cloudy | Generally cloudy | Partially clear |
| Max RH (%) | 92 | 90 | 88 | 85 | 85 |
| Min RH (%) | 85 | 82 | 75 | 72 | 70 |
| Wind Speed (KmpH) | 002 | 002 | 003 | 003 | 003 |
| Wind Direction (deg) | NE | NE | NE | NE | NE |

Northerly- N, North-Easterly- E, South-Easterly- S, South-Westerly- S, South-Westerly- N, Westerly- W, North-westerly- N-W.

| Weather for preceding week | | | | | |
|---------------------------------|-----|------|------|--|--|
| Date Rainfall Max. Temp Min. Te | | | | | |
| | | | | | |
| 16/11/2019 | 000 | 19.2 | 12.5 | | |
| 17/11/2019 | 000 | 18.4 | 13.4 | | |
| 18/11/2019 | 001 | 16.8 | 12.4 | | |

- > There is no probability of rainfall.
- Max temp may be varying from 16-19°C, whereas, Min temp may vary from 0-12 °C
- > Sky will remain generally cloudy
- Max RH is likely to be 85-92 %, whereas, Min RH may vary from 70-85 %
- > Wind speed may likely vary from 2-3 km/hr.
- > Wind direction may blow from northeasterly
- > Weekly cumulative rainfall= 001.0 mm

General Advisories for all the crops/livestock

- **➡** Complete the sowing of rabi crops as early as possible before residual soil moisture lost.
- **▶** Harvest mature crops before unexpected rain.
- **▶** While selecting site for construction of animal shed a site that allows sun light exposure as well as good wind control is preferable

| Name of the | Stage | Cultural practices/ | Agro-Met Advisories |
|---|--|------------------------|--|
| crop/Animal | Adrio | Pest/ Diseases | ural arangi |
| | | ultural and Horticultu | |
| Rice | Grain maturity to harvesting and postharvest | | Drain out water completely 10 days before harvesting. Harvesting should start when the crops are 80-90% mature Maintain seed moisture about 8-10 % |
| | | | for storage. |
| Rjmash | Pre flowering/flowe ring | | ♦ Irrigate crop at flowering stage. |
| Ginger/ Turmeric | Tillering stage | | Allow minimum entry to crop field to reduce disease infestation. |
| | | | Allow proper drainage to avoid stagnation of water in the field. Timely monitor the field to check the |
| | | | attack of bacterial wilt due to high humidity and temperature. |
| Red cherry pepper/Brinjal/ Toamto | Fruiting | Blight | Allow proper drainage to remove excess rain water from the field. Timely monitor the field to check the |
| | | | attack of bacterial will due to high humidity and temperature. |
| | | | Due to high temperature and high rainfall may cause late blight. Apply COC @ 0.25% at weekly interval for 4-5 sprays will reduce the disease. |
| Cole crops | Nursery | | The nursery site should be dry and |
| | preparation | | free from water stagnation as well as high moisture in the soil. |
| | | | To protect from heavy rain the nursery should be in semi protected area. |

| Sikkim | Planting/fruitin | | A | as there is a possibility of light to |
|------------|------------------|-----------------------|------------|---------------------------------------|
| Mandarin | g | | m | noderate rainfall so apply soil |
| | | | nı | utrients @ 25-35 kg/ha as maximum |
| | | | nı | utrient losses may occur due to |
| | | | | ainfall. |
| | Animal So | ciences and livestock | mana | agement |
| Poultry | | Coccidiosis, Ranikhet | K | Keep the Vanaraja chicks in warm |
| | | disease | C | ondition (32-330C) during the first |
| | | • | fo | our weeks. |
| | | | L | ow cost brooder should be made to |
| | | | pı | revent chick mortality due to cold |
| | | | st | tress. |
| | | | ♦ N | Maintain brooding temperature |
| | | | | nrough continuous electricity supply |
| | | | | nd for emergency Sigiri/Bukhari can |
| | | | | e used. |
| Sheep/goat | | | ♦ D | Ouring winter months special care |
| I G W | | | | hould be taken for sheep, goat for |
| | | | | xternal parasites. |
| | | | | Accinal parasites. |

Agro-Met Advisory member of ICAR-NOFRI and KVK- East SikkimNameDesignationDepartmentDr. R. K. AvastheJoint DirectorSoil ScienceDr. Raghavendra SinghSenior scientist
and
Head (I/C)AgronomyDr. P. K. PathakSMSAnimal science

Plant Breeding

Agronomy

Horticulture

Agril. Meteorology

Biochemistry

SMS

SMS

SMS

SMS

Met. Observer

Dr. J.K. Singh

Dr. Manoj Kumar

Sh. Boniface Lepcha

Miss Tirtha Kumari Chettri

Sh. Santanu Das



AGRO-MET ADVISORY BULLETIN FOR THE DISTRICT OF NORTH SIKKIM PERIOD:

20th NOVEMBER' to 24th NOVEMBER' 2019

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





ISSUED ON 19th November 2019

Meteorological Sub-division of Sikkim

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- 2) East District with HQ at Gangtok
- 3) West District with HQ at Gyalsing
- 4) South District with HQ at Namchi

Value Added forecast for NORTH-DISTRICT for next five days

| Parameter/Date | 20/11/2019 | 21/11/2019 | 22/11/2019 | 23/11/2019 | 24/11/2019 |
|----------------------------|------------------|------------------|------------------|------------------|------------------|
| Rainfall (mm) | Very light rain | No rain | No rain | No rain | No rain |
| Max Temp (⁰ C) | 20 | 22 | 23 | 23 | 24 |
| Min Temp (⁰ C) | 14 | 13 | 13 | 13 | 13 |
| Sky condition | Generally cloudy |
| Max RH (%) | 92 | 90 | 86 | 85 | 83 |
| Min RH (%) | 85 | 80 | 75 | 70 | 70 |
| Wind Speed (KmpH) | 003 | 004 | 003 | 003 | 004 |
| Wind Direction (deg) | S | SW | SW | SE | SE |

Northerly- N, North-Easterly- E, South-Easterly- S-E, South-Westerly- S, South-Westerly- S, South-Westerly- N, Westerly- N, Westerly- N, Westerly- N, North-westerly- N, North-westerly-

| Weather for preceding week | | | | | |
|-----------------------------------|---|------|------|--|--|
| Date Rainfall Max. Temp Min. Temp | | | | | |
| | $(\mathbf{mm}) \qquad \qquad (^{\mathrm{o}}\mathbf{C}) \qquad \qquad (^{\mathrm{o}}\mathbf{C})$ | | | | |
| 16/11/2019 | 000 | 24.6 | 12.8 | | |
| 17/11/2019 | 000 | 23.2 | 14.2 | | |
| 18/11/2019 | 000 | 21.9 | 15.3 | | |

- > Probability of no rain.
- Max temp may be varying from 20-24°C, whereas, Min temp may vary from 13-14°C
- > Sky will remain generally cloudy.
- Max RH is likely to be 83-92 %, whereas, Min RH may vary from 70-85 %
- > Wind speed may likely vary from 3-4 km/hr.
- > Wind direction may blow from southeasterly direction.
- > Weekly cumulative rainfall= 002.0 mm

General Advisories for all the crops/livestock

- **▶** Complete the sowing of rabi crops as early as possible before residual soil moisture lost.
- **→** Harvest mature crops before unexpected rain.
- **▶** While selecting site for construction of animal shed a site that allows sun light exposure as well as good wind control is preferable

| Name of the | Stage | Cultural practices/ Pest/ Diseases | Agro-Met Advisories |
|---|--|------------------------------------|--|
| crop/Animal | Agrica | ultural and Horticultu | ıral crops: |
| Rice | Grain maturity to harvesting and postharvest | | Drain out water completely 10 days before harvesting. Harvesting should start when the crops are 80-90% mature Maintain seed moisture about 8-10 % for storage. |
| Rjmash | Pre flowering/flowe ring | | ♦ Irrigate crop at flowering stage. |
| Ginger/ Turmeric | Tillering stage | | Allow minimum entry to crop field to reduce disease infestation. Allow proper drainage to avoid stagnation of water in the field. Timely monitor the field to check the attack of bacterial wilt due to high humidity and temperature. |
| Red cherry pepper/Brinjal/ Toamto | Fruiting | Blight | Allow proper drainage to remove excess rain water from the field. Timely monitor the field to check the attack of bacterial will due to high humidity and temperature. Due to high temperature and high rainfall may cause late blight. Apply COC @ 0.25% at weekly interval for 4-5 sprays will reduce the disease. |
| Cole crops | Nursery preparation | | The nursery site should be dry and free from water stagnation as well as high moisture in the soil. To protect from heavy rain the nursery should be in semi protected area. |

| Sikkim Mandarin | Planting/fruitin g | | As there is a possibility of light to moderate rainfall so apply soil nutrients @ 25-35 kg/ha as maximum nutrient losses may occur due to rainfall. | | |
|--------------------|--|-------------------------------|--|--|--|
| | Animal Sciences and livestock management | | | | |
| Poultry | | Coccidiosis, Ranikhet disease | Keep the Vanaraja chicks in warm condition (32-330C) during the first four weeks. Low cost brooder should be made to prevent chick mortality due to cold stress. Maintain brooding temperature through continuous electricity supply and for emergency Sigiri/Bukhari can be used. | | |
| Sheep/goat | | | During winter months special care should be taken for sheep, goat for external parasites. | | |

Agro-Met Advisory member of ICAR-NOFRI and KVK- East Sikkim Name Designation **Department** Dr. R. K. Avasthe **Joint Director Soil Science** Dr. Raghavendra Singh Agronomy Senior scientist and Head (I/C) Dr. P. K. Pathak SMS Animal science Dr. J.K. Singh Plant Breeding SMS Agronomy Dr. Manoj Kumar SMS Sh. Boniface Lepcha SMS Horticulture Agril. Meteorology Sh. Santanu Das SMS Miss Tirtha Kumari Chettri Biochemistry Met. Observer



AGRO-MET ADVISORY BULLETIN FOR THE DISTRICT OF SOUTH SIKKIM PERIOD:

20th NOVEMBER' to 24th NOVEMBER' 2019

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





ISSUED ON 19th November 2019

Meteorological Sub-division of Sikkim

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- 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

Value Added forecast for SOUTH-DISTRICT for next five days

| Parameter/Date | 20/11/2019 | 21/11/2019 | 22/11/2019 | 23/11/2019 | 24/11/2019 |
|----------------------------|------------------|------------------|------------------|-----------------|-----------------|
| Rainfall (mm) | No rain | No rain | No rain | No rain | No rain |
| Max Temp (⁰ C) | 21 | 22 | 23 | 23 | 24 |
| Min Temp (⁰ C) | 14 | 13 | 13 | 13 | 13 |
| Sky condition | Generally cloudy | Generally cloudy | Generally cloudy | Partially clear | Partially clear |
| Max RH (%) | 90 | 88 | 85 | 83 | 83 |
| Min RH (%) | 80 | 75 | 70 | 68 | 68 |
| Wind Speed (KmpH) | 003 | 002 | 002 | 002 | 002 |
| Wind Direction (deg) | NE | NE | NE | NE | NE |

Northerly- N, North-Easterly- E, South-Easterly- S, South-Westerly- S, South-Westerly- N, Westerly- N, Wester

| | Weather for preceding week | | | | | |
|-----------------------------------|----------------------------|------|------|--|--|--|
| Date Rainfall Max. Temp Min. Temp | | | | | | |
| | (mm) | (°C) | (°C) | | | |
| 16/11/2019 | 000 | 22.4 | 13.6 | | | |
| 17/11/2019 | N/A | 20.4 | 13.6 | | | |
| 18/11/2019 | N/A | 20.6 | 13.6 | | | |

- There will be no rainfall
- Max temp may be varying from 21-24°C, whereas, Min temp may vary from 13-14°C
- > Sky will remain generally cloudy.
- > Max RH is likely to be 83-90 %, whereas, Min RH may vary from 68-80 %
- > Wind speed may likely vary from 2-3 km/hr.
- > Wind direction may blow from northeasterly direction
- > Weekly cumulative rainfall= 000.0 mm

General Advisories for all the crops/livestock

- **➡** Complete the sowing of rabi crops as early as possible before residual soil moisture lost.
- **▶** Harvest mature crops before unexpected rain.
- **▶** While selecting site for construction of animal shed a site that allows sun light exposure as well as good wind control is preferable

| Name of the | Stage | Cultural practices/ | Agro-Met Advisories |
|---|--|------------------------|--|
| crop/Animal | A dui o | Pest/ Diseases | und arana |
| | Agrica | ultural and Horticultu | - |
| Rice | Grain maturity to harvesting and postharvest | | Drain out water completely 10 days before harvesting. Harvesting should start when the crops are 80-90% mature Maintain seed moisture about 8-10 % for storage. |
| Rjmash | Pre flowering/flowe ring | | ♦ Irrigate crop at flowering stage. |
| Ginger/ Turmeric | Tillering stage | | Allow minimum entry to crop field to reduce disease infestation. Allow proper drainage to avoid |
| | | | stagnation of water in the field. Timely monitor the field to check the attack of bacterial wilt due to high humidity and temperature. |
| Red cherry pepper/Brinjal/ Toamto | Fruiting | Blight | Allow proper drainage to remove excess rain water from the field. Timely monitor the field to check the attack of bacterial will due to high humidity and temperature. Due to high temperature and high rainfall may cause late blight. Apply COC @ 0.25% at weekly interval for 4-5 sprays will reduce the disease. |
| Cole crops | Nursery preparation | | The nursery site should be dry and free from water stagnation as well as high moisture in the soil. To protect from heavy rain the nursery should be in semi protected area. |

| Sikkim | Planting/fruitin | | | As there is a possibility of light to |
|------------|------------------|-----------------------|----------|---------------------------------------|
| Mandarin | g | | | moderate rainfall so apply soil |
| | | | | nutrients @ 25-35 kg/ha as maximum |
| | | | | nutrient losses may occur due to |
| | | | | rainfall. |
| | Animal So | ciences and livestock | ma | nagement |
| Poultry | | Coccidiosis, Ranikhet | | Keep the Vanaraja chicks in warm |
| | 4 4 | disease | | condition (32-330C) during the first |
| | | | | four weeks. |
| | | | | Low cost brooder should be made to |
| | | | | prevent chick mortality due to cold |
| | | | | stress. |
| | | | | Maintain brooding temperature |
| | | | | through continuous electricity supply |
| | | | | and for emergency Sigiri/Bukhari can |
| | | | | be used. |
| Sheep/goat | | | (| During winter months special care |
| Sheep/gout | | | • | should be taken for sheep, goat for |
| | | | | |
| | | | | external parasites. |

Agro-Met Advisory member of ICAR-NOFRI and KVK- East SikkimNameDesignationDepartmentDr. R. K. AvastheJoint DirectorSoil ScienceDr. Raghavendra SinghSenior scientist
and
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Plant Breeding

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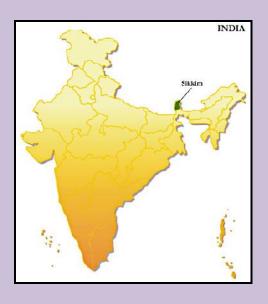
Sh. Santanu Das



AGRO-MET ADVISORY BULLETIN FOR THE DISTRICT OF WEST SIKKIM PERIOD:

20th NOVEMBER' to 24th NOVEMBER' 2019

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





ISSUED ON 19th November 2019

Meteorological Sub-division of Sikkim

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- 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

Value Added forecast for WEST-DISTRICT for next five days

| Parameter/Date | 20/11/2019 | 21/11/2019 | 22/11/2019 | 23/11/2019 | 24/11/2019 |
|----------------------------|------------------|------------------|-----------------|-----------------|------------------|
| Rainfall (mm) | No rain | No rain | No rain | No rain | No rain |
| Max Temp (⁰ C) | 18 | 19 | 20 | 21 | 22 |
| Min Temp (⁰ C) | 12 | 11 | 11 | 11 | 12 |
| Sky condition | Generally cloudy | Generally cloudy | Partially clear | Partially clear | Generally cloudy |
| Max RH (%) | 90 | 88 | 83 | 82 | 82 |
| Min RH (%) | 80 | 76 | 70 | 68 | 70 |
| Wind Speed (KmpH) | 001 | 002 | 001 | 002 | 002 |
| Wind Direction (deg) | NW | NW | NW | NW | NW |

Northerly- N, North-Easterly- E, South-Easterly- S, South-Westerly- S, South-Westerly- N, Westerly- N, Wester

| Weather for preceding week | | | | | |
|----------------------------|----------|-----------|-----------|--|--|
| Date | Rainfall | Max. Temp | Min. Temp | | |
| | (mm) | (°C) | (°C) | | |
| 16/11/2019 | 000 | N/A | N/A | | |
| 17/11/2019 | 000 | N/A | N/A | | |
| 18/11/2019 | 000 | N/A | N/A | | |

- Probability of no rainfall
- Max temp may be varying from 18-22°C, whereas, Min temp may vary from 11-12°C
- > Sky will remain generally cloudy.
- Max RH is likely to be 82-90 %, whereas, Min RH may vary from 68-80 %
- > Wind speed may likely vary from 1-2 km/hr.
- > Wind direction may blow from northwesterly.
- > Weekly cumulative rainfall= 000.0 mm

General Advisories for all the crops/livestock (English)

- **▶** Complete the sowing of rabi crops as early as possible before residual soil moisture lost.
- **→** Harvest mature crops before unexpected rain.
- **▶** While selecting site for construction of animal shed a site that allows sun light exposure as well as good wind control is preferable

| Name of the | Stage | Cultural practices/ | Agro-Met Advisories | | |
|---|------------------------------|---------------------|--|--|--|
| crop/Animal Pest/ Diseases Agricultural and Horticultural crops: | | | | | |
| | | | | | |
| Rice | Grain maturity to harvesting | | Drain out water completely 10 days before harvesting. | | |
| | and postharvest | | Harvesting should start when the crops | | |
| | and posmar vest | | are 80-90% mature | | |
| | | | ♦ Maintain seed moisture about 8-10 % | | |
| | | | for storage. | | |
| Rjmash | Pre | | Irrigate crop at flowering stage. | | |
| | flowering/flowe | | | | |
| Ginger/ | ring Tillering stage | | Allow minimum entry to crop field to | | |
| Turmeric | | | reduce disease infestation. | | |
| | | | ◆ Allow proper drainage to avoid | | |
| | | | stagnation of water in the field. | | |
| | | | Timely monitor the field to check the | | |
| | | | attack of bacterial wilt due to high | | |
| | | | humidity and temperature. | | |
| Red cherry | Fruiting | Blight | Allow proper drainage to remove | | |
| pepper/Brinjal/ Toamto | | | excess rain water from the field. | | |
| Toanno | | | Timely monitor the field to check the attack of bacterial will due to high | | |
| | | | humidity and temperature. | | |
| | | | Due to high temperature and high | | |
| | | | rainfall may cause late blight. Apply | | |
| | | | COC @ 0.25% at weekly interval for | | |
| | | | 4-5 sprays will reduce the disease. | | |
| Cole crops | Nursery | | The nursery site should be dry and | | |
| P | preparation | | free from water stagnation as well as | | |
| | | | high moisture in the soil. | | |
| | | | To protect from heavy rain the nursery | | |
| | | | should be in semi protected area. | | |

| Sikkim Mandarin | Planting/fruitin g | | As there is a possibility of light to moderate rainfall so apply soil nutrients @ 25-35 kg/ha as maximum nutrient losses may occur due to rainfall. | | |
|--|-----------------------|-------------------------------|--|--|--|
| Animal Sciences and livestock management | | | | | |
| Poultry | | Coccidiosis, Ranikhet disease | Keep the Vanaraja chicks in warm condition (32-330C) during the first four weeks. Low cost brooder should be made to prevent chick mortality due to cold stress. Maintain brooding temperature through continuous electricity supply and for emergency Sigiri/Bukhari can be used. | | |
| Sheep/goat | | | During winter months special care should be taken for sheep, goat for external parasites. | | |

Agro-Met Advisory member of ICAR-NOFRI and KVK- East Sikkim Name Designation **Department** Dr. R. K. Avasthe **Joint Director Soil Science** Dr. Raghavendra Singh Agronomy Senior scientist and Head (I/C) Dr. P. K. Pathak SMS Animal science Dr. J.K. Singh Plant Breeding SMS Agronomy Dr. Manoj Kumar SMS Sh. Boniface Lepcha SMS Horticulture Agril. Meteorology Sh. Santanu Das SMS Miss Tirtha Kumari Chettri Biochemistry Met. Observer