



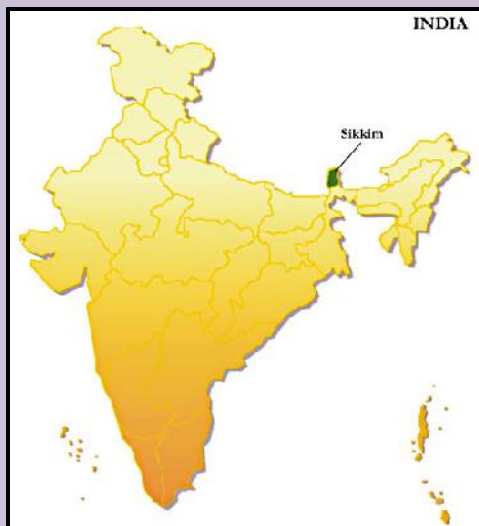
AGRO-MET ADVISORY BULLETIN FOR THE DISTRICT OF NORTH SIKKIM

PERIOD:

4th SEPTEMBER to 8th SEPTEMBER' 2019



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



ISSUED ON 3rd September 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 Gyalshing
- 4) South District with HQ at Namchi

Issued by: Santanu Das, SMS (Agril. Meteorology), ICAR-KVK, East Sikkim, Ranipool

Value Added forecast for NORTH-DISTRICT for next five days

Parameter/Date	04/09/2019	05/09/2019	06/09/2019	07/09/2019	08/09/2019
Rainfall (mm)	Moderate rainfall	Moderate rainfall	Light rainfall	Light rainfall	Moderate rainfall
Max Temp ($^{\circ}\text{C}$)	28	28	29	29	28
Min Temp ($^{\circ}\text{C}$)	20	20	20	20	20
Sky condition	Generally cloudy	Generally cloudy	Generally cloudy	Generally cloudy	Generally cloudy
Max RH (%)	92	93	91	90	92
Min RH (%)	82	84	81	82	85
Wind Speed (Kmph)	3	3	2	4	4
Wind Direction (deg)	N	NE	NE	N	N

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

Weather for preceding week			
Date	Rainfall	Max. Temp	Min. Temp
	(mm)	($^{\circ}\text{C}$)	($^{\circ}\text{C}$)
31/08/2019	015	26.1	20.6
01/09/2019	004	31.5	19.8
02/09/2019	000	32.0	21.4

Weather forecast valid up to 8th September 2019


- Probability of moderate rainfall
- Max temp may be varying from 28-29 $^{\circ}\text{C}$, whereas, Min temp may vary from 0-20 $^{\circ}\text{C}$
- Sky will remain generally cloudy
- Max RH is likely to be 90-93 %, whereas, Min RH may vary from 81-85 %
- Wind speed may likely vary from 3-4 km/hr.
- Wind direction may blow northerly
- Weekly cumulative rainfall=76 mm

AGRO-METEOREOLOGICAL ADVISORIES


General Advisories for all the crops/ livestock

- ➡ Bunding at terrace should be done to reduce nutrient losses due to heavy rainfall
- ➡ Keep the field ready for black gram (pahelo dal) sowing
- ➡ Crop field should be free from weed, during flowering stage
- ➡ *Jalkund* should be dug out for rain water harvesting.
- ➡ Spraying of bio pesticides (neem based formulation 1500 ppm @5ml/lit. and copper oxychloride 50%WP @ 2.5g/lit.) at weekly interval for insect pest and diseases management
- ➡ Regular supplementation of vitamins and mineral mixture to the livestock is recommended to improve the productive and reproductive performance of animals.
- ➡ Milching dairy cow should be feed 70-80 ml calcium daily for better milk yield and good health
- ➡ FMD (foot and Mouth Disease) vaccination should be given to cattle, goat and pig
- ➡ Enterotoxaemia & PPR vaccine is highly recommended for goat

Name of the crop/Animal	Stage	Cultural practices/ Pest/ Diseases	Agro-Met Advisories
<i>Agricultural and Horticultural crops:</i>			
Maize	Transplanting completed (vegetative stage)	Army worm	◆ Harvest the crop in bright sunny days ◆ Green cobs can be harvested to sell in the market.
Rice	Main field preparation and transplanting		◆ Apply <i>Azolla</i> in the paddy field ◆ Complete the first weeding
Black gram (Pahelo dal)	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.

			<ul style="list-style-type: none"> Seed treatment with Trichoderma sp. @ 5-10 g/kg seed and soil treatment @ 2.5 kg mixed with 50 kg FYM is recommended.
Rjmash/Cowpea	Land preparation/ Sowing		<ul style="list-style-type: none"> Prepared the land & add 10-15 tonnes/ha FYM in the pits or lines in raised bed, 10-15 days before planting.
Ginger/ Turmeric	Tillering stage		<ul style="list-style-type: none"> Remove the weeds without breaking the sprouted ginger tillers. Drench the ginger field with cow urine at 1:4 (urine: water) ratio or fresh cow dung slurry at fortnightly interval Start spraying copper oxy chloride @ 0.25 % at weekly interval
Large cardamom	Planting 		<ul style="list-style-type: none"> A 2 years old nursery suckers should be planted in the main field A spacing of 1.8×1.8 m² should be maintained. Young white coloured roots should not be destroy while planting, while old roots should trimmed out.
Early kharif vegetables	Vegetative growth		<ul style="list-style-type: none"> Weeding and intercultural operation should be done
Red cherry pepper/Brinjal	Vegetative	Blight	<ul style="list-style-type: none"> Plants should be keep weed free and avoid water stagnation Spraying of COC @ 2-3 ml/lit. at weekly interval Five spray of neem based formulation 1500 ppm @ 5 ml/1 lit. of weekly interval for controlling of <i>Aphids</i>
Cole crops/ Tomato	Nursery preparation		<ul style="list-style-type: none"> Start preparation of nursery beds for early and late kharif tomato Use early varieties of cabbage (early ball) cauliflower (white excel), broccoli (Aishwarya) and tomato (varieties Arka rakshak, Arka samrat, and All rounder Apply FYM 2 kg/m², neem cake @ 200 g/m², Trichoderma@ 1 % should be incorporated in soil during nursery bed preparation. Nursery bed should be prepared

			inside the poly tunnel/rain shelter system.
Sikkim Mandarin	Planting/fruiting		<ul style="list-style-type: none"> ◆ Keep the orchard weed free ◆ Digging the pit of 3 feet× 3 feet × 3 feet for transplanting new saplings ◆ Top soil of the pit should be mixed with FYM @20 kg/pit
<i>Animal Sciences and livestock management</i>			
Tibetan Sheep			<ul style="list-style-type: none"> ◆ Recommended for feeding concentrate feed along with mineral mixture and salt. ◆ Hay feeding is recommended.
Yak			<ul style="list-style-type: none"> ◆ Recommended for feeding concentrate feed along with mineral mixture and salt. ◆ Hay feeding is recommended. ◆ Trimming of hair is recommended during summer season
Sheep and Goat			<ul style="list-style-type: none"> ◆ Breeding of the sheep/goat should be done 24-30 hr. after onset of heat. ◆ Feeding of concentrate feed along with jaggery, mineral mixture and salt is recommended. ◆ Periodic application of fly repellents and/or netting of dung pit is recommended.
Cattle			<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 within 12-18 hours after onset of heat symptoms ◆ Balanced feeding of dairy animals and allow calf suckling immediately after parturition is recommended. ◆ 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.

			Later on, complete milking in subsequent 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 is recommended. ◆ Inclusion of turmeric powder @ 10g/kg in poultry feed for prevention of Coccidiosis is recommended. ◆ Maintenance of brooder temperature for chicks with the help of electrical bulbs for initial one month. ◆ Ranikhet vaccination for poultry at 5-7 days and at 28-30 days of age is highly recommended. ◆ Calcium/shell grit and multi vitamin supplementation is strongly recommended to optimize egg production. ◆ Occasional spraying of ectoparasiticides viz., deltamethrin/cypermethrin @ 1% v/v in water is recommended.
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 3 months followed by annual booster dose is recommended. ◆ Critical heat detection of sow/ gilt in early morning and late evening is recommended. ◆ Farmers can incorporate low cost locally available feed resources (60%) for feeding pigs to reduce the cost of feeding

Name	Designation	Department
<i>Dr. R. K. Avasthe</i>	Joint Director	Soil Science
<i>Dr. Raghavendra Singh</i>	Senior scientist and Head (I/C)	Agronomy
<i>Dr. P. K. Pathak</i>	SMS	Animal science
<i>Dr. J.K. Singh</i>	SMS	Plant Breeding
<i>Dr. Manoj Kumar</i>	SMS	Agronomy
<i>Sh. Boniface Lepcha</i>	SMS	Horticulture
<i>Sh. Santanu Das</i>	SMS	Agril. Meteorology
<i>Miss Tirtha Kumari Chettri</i>	Met. Observer	Biochemistry



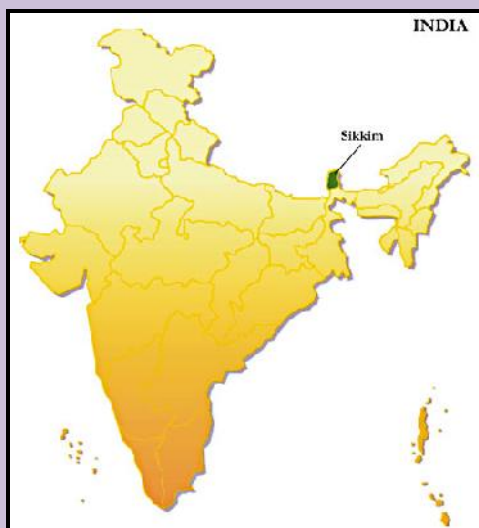
AGRO-MET ADVISORY BULLETIN FOR THE DISTRICT OF EAST SIKKIM

PERIOD:

4th SEPTEMBER to 8th SEPTEMBER' 2019



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



ISSUED ON 3rd September 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

Issued by: Santanu Das, SMS (Agril. Meteorology), ICAR-KVK, East Sikkim, Ranipool

Value Added forecast for EAST-DISTRICT for next five days

Parameter/Date	04/09/2019	05/09/2019	06/09/2019	07/09/2019	08/09/2019
Rainfall (mm)	Light rainfall	Light rainfall	Light rainfall	Light rainfall	Light rainfall
Max Temp ($^{\circ}\text{C}$)	22	23	23	23	23
Min Temp ($^{\circ}\text{C}$)	18	18	18	18	18
Sky condition	Cloudy	Generally cloudy	Generally cloudy	Generally cloudy	Generally cloudy
Max RH (%)	93	93	92	91	92
Min RH (%)	82	84	82	81	84
Wind Speed (Kmph)	2	3	3	2	3
Wind Direction (deg)	NE	SE	SW	SW	SW

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

Weather for preceding week			
Date	Rainfall	Max. Temp	Min. Temp
	(mm)	($^{\circ}\text{C}$)	($^{\circ}\text{C}$)
31/08/2019	092	21.9	17.8
01/09/2019	004	26.2	18.2
02/09/2019	000	26.4	19.2

Weather forecast valid up to 8th September 2019


- Probability of light rainfall
- Max temp may be varying from 22-23 $^{\circ}\text{C}$, whereas, Min temp may vary from 18-22 $^{\circ}\text{C}$
- Sky will remain generally cloudy
- Max RH is likely to be 91-93 %, whereas, Min RH may vary from 81-84 %
- Wind speed may likely vary from 2-3 km/hr.
- Wind direction may blow from northeasterly to south westerly
- Weekly cumulative rainfall= 54 mm

AGRO-METEREOLOGICAL ADVISORIES


General Advisories for all the crops/ livestock

- ➡ Bunding at terrace should be done to reduce nutrient losses due to heavy rainfall
- ➡ Keep the field ready for black gram (pahelo dal) sowing
- ➡ Crop field should be free from weed, during flowering stage
- ➡ *Jalkund* should be dug out for rain water harvesting.
- ➡ Spraying of bio pesticides (neem based formulation 1500 ppm @5ml/lit. and copper oxychloride 50%WP @ 2.5g/lit.) at weekly interval for insect pest and diseases management
- ➡ Regular supplementation of vitamins and mineral mixture to the livestock is recommended to improve the productive and reproductive performance of animals.
- ➡ Milching dairy cow should be feed 70-80 ml calcium daily for better milk yield and good health
- ➡ FMD (foot and Mouth Disease) vaccination should be given to cattle, goat and pig
- ➡ Enterotoxaemia & PPR vaccine is highly recommended for goat

Name of the crop/Animal	Stage	Cultural practices/ Pest/ Diseases	Agro-Met Advisories
<i>Agricultural and Horticultural crops:</i>			
Maize	Transplanting completed (vegetative stage)	Army worm	◆ Harvest the crop in bright sunny days ◆ Green cobs can be harvested to sell in the market.
Rice	Main field preparation and transplanting		◆ Apply <i>Azolla</i> in the paddy field ◆ Complete the first weeding
Black gram (Pahelo dal)	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.

			<ul style="list-style-type: none"> ◆ Seed treatment with Trichoderma sp. @ 5-10 g/kg seed and soil treatment @ 2.5 kg mixed with 50 kg FYM is recommended.
Rjmash/Cowpea	Land preparation/ Sowing		<ul style="list-style-type: none"> ◆ Prepared the land & add 10-15 tonnes/ha FYM in the pits or lines in raised bed, 10-15 days before planting.
Ginger/ Turmeric	Tillering stage		<ul style="list-style-type: none"> ◆ Remove the weeds without breaking the sprouted ginger tillers. ◆ Drench the ginger field with cow urine at 1:4 (urine: water) ratio or fresh cow dung slurry at fortnightly interval ◆ Start spraying copper oxy chloride @ 0.25 % at weekly interval
Large cardamom	Planting 		<ul style="list-style-type: none"> ◆ A 2 years old nursery suckers should be planted in the main field ◆ A spacing of 1.8×1.8 m² should be maintained. ◆ Young white coloured roots should not be destroy while planting, while old roots should trimmed out.
Early kharif vegetables	Vegetative growth		<ul style="list-style-type: none"> ◆ Weeding and intercultural operation should be done
Red cherry pepper/Brinjal	Vegetative	Blight	<ul style="list-style-type: none"> ◆ Plants should be keep weed free and avoid water stagnation ◆ Spraying of COC @ 2-3 ml/lit. at weekly interval ◆ Five spray of neem based formulation 1500 ppm @ 5 ml/1 lit. of weekly interval for controlling of <i>Aphids</i>
Cole crops/ Tomato	Nursery preparation		<ul style="list-style-type: none"> ◆ Start preparation of nursery beds for early and late kharif tomato ◆ Use early varieties of cabbage (early ball) cauliflower (white excel), broccoli (Aishwarya) and tomato (varieties Arka rakshak, Arka samrat, and All rounder ◆ Apply FYM 2 kg/m², neem cake @ 200 g/m², Trichoderma@ 1 % should be incorporated in soil during nursery bed preparation.

			<ul style="list-style-type: none"> ◆ Nursery bed should be prepared inside the poly tunnel/rain shelter system.
Sikkim Mandarin	Planting/fruiting		<ul style="list-style-type: none"> ◆ Keep the orchard weed free ◆ Digging the pit of 3 feet× 3 feet × 3 feet for transplanting new saplings ◆ Top soil of the pit should be mixed with FYM @20 kg/pit
<i>Animal Sciences and livestock management</i>			
Tibetan Sheep			<ul style="list-style-type: none"> ◆ Recommended for feeding concentrate feed along with mineral mixture and salt. ◆ Hay feeding is recommended.
Yak			<ul style="list-style-type: none"> ◆ Recommended for feeding concentrate feed along with mineral mixture and salt. ◆ Hay feeding is recommended. ◆ Trimming of hair is recommended during summer season
Sheep and Goat			<ul style="list-style-type: none"> ◆ Breeding of the sheep/goat should be done 24-30 hr. after onset of heat. ◆ Feeding of concentrate feed along with jaggery, mineral mixture and salt is recommended. ◆ Periodic application of fly repellents and/or netting of dung pit is recommended.
Cattle			<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 within 12-18 hours after onset of heat symptoms ◆ Balanced feeding of dairy animals and allow calf suckling immediately after parturition is recommended. ◆ 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.

			<ul style="list-style-type: none"> ◆ Frequent incomplete milking at interval of 4hrs should be practiced after parturition for minimum 1 week. Later on, complete milking in subsequent 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 is recommended. ◆ Inclusion of turmeric powder @ 10g/kg in poultry feed for prevention of Coccidiosis is recommended. ◆ Maintenance of brooder temperature for chicks with the help of electrical bulbs for initial one month. ◆ Ranikhet vaccination for poultry at 5-7 days and at 28-30 days of age is highly recommended. ◆ Calcium/shell grit and multi vitamin supplementation is strongly recommended to optimize egg production. ◆ Occasional spraying of ectoparasitocides viz., deltamethrin/cypermethrin @ 1% v/v in water is recommended.
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 3 months followed by annual booster dose is recommended. ◆ Critical heat detection of sow/ gilt in early morning and late evening is recommended. ◆ Farmers can incorporate low cost locally available feed resources (60%) for feeding pigs to reduce the cost of feeding

Agro-Met Advisory member of ICAR-NOFRI and KVK- East Sikkim

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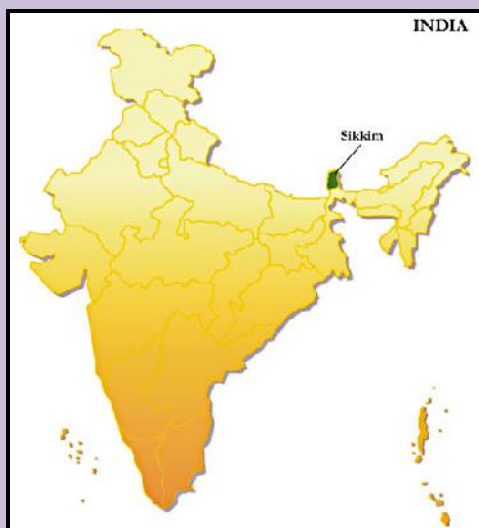


AGRO-MET ADVISORY BULLETIN FOR THE DISTRICT OF SOUTH SIKKIM PERIOD:



4th SEPTEMBER to 8th SEPTEMBER' 2019

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ISSUED ON 3rd September 2019

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- 3) West District with HQ at Gyalshing
- 4) South District with HQ at Namchi

Issued by: Santanu Das, SMS (Agril. Meteorology), ICAR-KVK, East Sikkim, Ranipool

Value Added forecast for SOUTH-DISTRICT for next five days

Parameter/Date	04/09/2019	05/09/2019	06/09/2019	07/09/2019	08/09/2019
Rainfall (mm)	Light rainfall	Light rainfall	Light rainfall	Light rainfall	Light rainfall
Max Temp ($^{\circ}\text{C}$)	27	27	28	27	26
Min Temp ($^{\circ}\text{C}$)	20	19	20	20	19
Sky condition	Generally cloudy	Generally cloudy	Generally cloudy	Generally cloudy	Generally cloudy
Max RH (%)	91	92	90	90	91
Min RH (%)	81	83	81	82	84
Wind Speed (Kmph)	4	4	5	4	5
Wind Direction (deg)	NW	N	NE	N	SE

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

Weather for preceding week			
Date	Rainfall	Max. Temp	Min. Temp
	(mm)	($^{\circ}\text{C}$)	($^{\circ}\text{C}$)
31/08/2019	N/A	26.0	19.3
01/09/2019	N/A	31.1	19.3
02/09/2019	N/A	29.7	21.0

Weather forecast valid up to 8th September 2019


- There will be chances of light rainfall
- Max temp may be varying from 26-28 $^{\circ}\text{C}$, whereas, Min temp may vary from 19-20 $^{\circ}\text{C}$
- Sky will remain generally cloudy
- Max RH is likely to be 90-92%, whereas, Min RH may vary from 81-84 %
- Wind speed may likely vary from 4-5 km/hr.
- Wind direction may blow to southeasterly
- Weekly cumulative rainfall= 35 mm

AGRO-METEREOLOGICAL ADVISORIES


General Advisories for all the crops/ livestock

- ➡ Bunding at terrace should be done to reduce nutrient losses due to heavy rainfall
- ➡ Keep the field ready for black gram (pahelo dal) sowing
- ➡ Crop field should be free from weed, during flowering stage
- ➡ *Jalkund* should be dug out for rain water harvesting.
- ➡ Spraying of bio pesticides (neem based formulation 1500 ppm @5ml/lit. and copper oxychloride 50%WP @ 2.5g/lit.) at weekly interval for insect pest and diseases management
- ➡ Regular supplementation of vitamins and mineral mixture to the livestock is recommended to improve the productive and reproductive performance of animals.
- ➡ Milching dairy cow should be feed 70-80 ml calcium daily for better milk yield and good health
- ➡ FMD (foot and Mouth Disease) vaccination should be given to cattle, goat and pig
- ➡ Enterotoxaemia & PPR vaccine is highly recommended for goat

Name of the crop/Animal	Stage	Cultural practices/ Pest/ Diseases	Agro-Met Advisories
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Rice	Main field preparation and transplanting		◆ Apply <i>Azolla</i> in the paddy field ◆ Complete the first weeding
Black gram (Pahelo dal)	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.

			<ul style="list-style-type: none"> ◆ 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.
Rjmash/Cowpea	Land preparation/ Sowing		<ul style="list-style-type: none"> ◆ Prepared the land & add 10-15 tonnes/ha FYM in the pits or lines in raised bed, 10-15 days before planting.
Ginger/ Turmeric	Tillering stage		<ul style="list-style-type: none"> ◆ Remove the weeds without breaking the sprouted ginger tillers. ◆ Drench the ginger field with cow urine at 1:4 (urine: water) ratio or fresh cow dung slurry at fortnightly interval ◆ Start spraying copper oxy chloride @ 0.25 % at weekly interval
Large cardamom	Planting 		<ul style="list-style-type: none"> ◆ A 2 years old nursery suckers should be planted in the main field ◆ A spacing of 1.8×1.8 m² should be maintained. ◆ Young white coloured roots should not be destroy while planting, while old roots should trimmed out.
Early kharif vegetables	Vegetative growth		<ul style="list-style-type: none"> ◆ Weeding and intercultural operation should be done
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Cole crops/ Tomato	Nursery preparation		<ul style="list-style-type: none"> ◆ Start preparation of nursery beds for early and late kharif tomato ◆ Use early varieties of cabbage (early ball) cauliflower (white excel), broccoli (Aishwarya) and tomato (varieties Arka rakshak, Arka samrat, and All rounder ◆ Apply FYM 2 kg/m², neem cake @ 200 g/m², <i>Trichoderma</i>@ 1 % should be incorporated in soil during nursery bed preparation.

			<ul style="list-style-type: none"> ◆ Nursery bed should be prepared inside the poly tunnel/rain shelter system.
Sikkim Mandarin	Planting/fruiting		<ul style="list-style-type: none"> ◆ Keep the orchard weed free ◆ Digging the pit of 3 feet× 3 feet × 3 feet for transplanting new saplings ◆ Top soil of the pit should be mixed with FYM @20 kg/pit
<i>Animal Sciences and livestock management</i>			
Tibetan Sheep			<ul style="list-style-type: none"> ◆ Recommended for feeding concentrate feed along with mineral mixture and salt. ◆ Hay feeding is recommended.
Yak			<ul style="list-style-type: none"> ◆ Recommended for feeding concentrate feed along with mineral mixture and salt. ◆ Hay feeding is recommended. ◆ Trimming of hair is recommended during summer season
Sheep and Goat			<ul style="list-style-type: none"> ◆ Breeding of the sheep/goat should be done 24-30 hr. after onset of heat. ◆ Feeding of concentrate feed along with jaggery, mineral mixture and salt is recommended. ◆ Periodic application of fly repellents and/or netting of dung pit is recommended.
Cattle			<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 within 12-18 hours after onset of heat symptoms ◆ Balanced feeding of dairy animals and allow calf suckling immediately after parturition is recommended. ◆ 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.

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Agro-Met Advisory member of ICAR-NOFRI and KVK- East Sikkim

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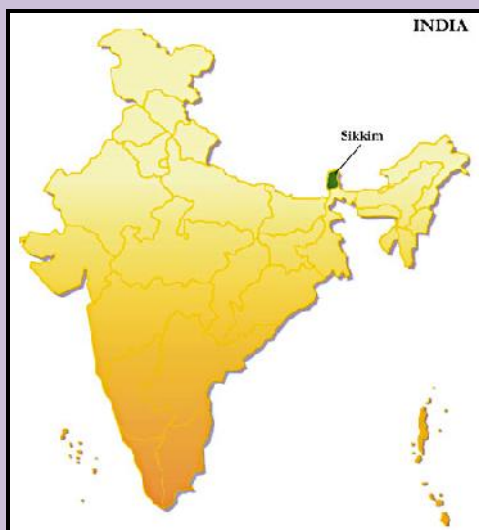


AGRO-MET ADVISORY BULLETIN FOR THE DISTRICT OF WEST SIKKIM

PERIOD:

4th SEPTEMBER to 8th SEPTEMBER' 2019

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



ISSUED ON 3rd September 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

Issued by: Santanu Das, SMS (Agril. Meteorology), ICAR-KVK, East Sikkim, Ranipool

Value Added forecast for WEST-DISTRICT for next five days

Parameter/Date	04/09/2019	05/09/2019	06/09/2019	07/09/2019	08/09/2019
Rainfall (mm)	Light rainfall	Light rainfall	Light rainfall	Light rainfall	Moderate rainfall
Max Temp ($^{\circ}\text{C}$)	24	24	25	24	24
Min Temp ($^{\circ}\text{C}$)	18	18	18	18	17
Sky condition	Generally cloudy	Generally cloudy	Generally cloudy	Generally cloudy	Generally cloudy
Max RH (%)	91	92	90	91	92
Min RH (%)	81	82	80	81	82
Wind Speed (Kmph)	4	4	3	3	4
Wind Direction (deg)	SE	N	N	N	N

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

Weather for preceding week			
Date	Rainfall	Max. Temp	Min. Temp
	(mm)	($^{\circ}\text{C}$)	($^{\circ}\text{C}$)
31/08/2019	008	22.7	18.3
01/09/2019	014	29.4	17.7
02/09/2019	001	29.0	19.3

Weather forecast valid up to 8th September 2019


- Probability of light rainfall
- Max temp may be varying from 24-25 $^{\circ}\text{C}$, whereas, Min temp may vary from 17-18 $^{\circ}\text{C}$
- Sky will remain generally cloudy
- Max RH is likely to be 90-91%, whereas, Min RH may vary from 80-82 %
- Wind speed may likely vary from 2-4 km/hr.
- Wind direction may blow to northerly
- Weekly cumulative rainfall= 60 mm

AGRO-METEOREOLOGICAL ADVISORIES


General Advisories for all the crops/ livestock

- ➡ Bunding at terrace should be done to reduce nutrient losses due to heavy rainfall
- ➡ Keep the field ready for black gram (pahelo dal) sowing
- ➡ Crop field should be free from weed, during flowering stage
- ➡ *Jalkund* should be dug out for rain water harvesting.
- ➡ Spraying of bio pesticides (neem based formulation 1500 ppm @5ml/lit. and copper oxychloride 50%WP @ 2.5g/lit.) at weekly interval for insect pest and diseases management
- ➡ Regular supplementation of vitamins and mineral mixture to the livestock is recommended to improve the productive and reproductive performance of animals.
- ➡ Milching dairy cow should be feed 70-80 ml calcium daily for better milk yield and good health
- ➡ FMD (foot and Mouth Disease) vaccination should be given to cattle, goat and pig
- ➡ Enterotoxaemia & PPR vaccine is highly recommended for goat

Name of the crop/Animal	Stage	Cultural practices/ Pest/ Diseases	Agro-Met Advisories
<i>Agricultural and Horticultural crops:</i>			
Maize	Transplanting completed (vegetative stage)	Army worm	◆ Harvest the crop in bright sunny days ◆ Green cobs can be harvested to sell in the market.
Rice	Main field preparation and transplanting		◆ Apply <i>Azolla</i> in the paddy field ◆ Complete the first weeding
Black gram (Pahelo dal)	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.

			<ul style="list-style-type: none"> Seed treatment with Trichoderma sp. @ 5-10 g/kg seed and soil treatment @ 2.5 kg mixed with 50 kg FYM is recommended.
Rjmash/Cowpea	Land preparation/ Sowing		<ul style="list-style-type: none"> Prepared the land & add 10-15 tonnes/ha FYM in the pits or lines in raised bed, 10-15 days before planting.
Ginger/ Turmeric	Tillering stage		<ul style="list-style-type: none"> Remove the weeds without breaking the sprouted ginger tillers. Drench the ginger field with cow urine at 1:4 (urine: water) ratio or fresh cow dung slurry at fortnightly interval Start spraying copper oxy chloride @ 0.25 % at weekly interval
Large cardamom	Planting 		<ul style="list-style-type: none"> A 2 years old nursery suckers should be planted in the main field A spacing of 1.8×1.8 m² should be maintained. Young white coloured roots should not be destroy while planting, while old roots should trimmed out.
Early kharif vegetables	Vegetative growth		<ul style="list-style-type: none"> Weeding and intercultural operation should be done
Red cherry pepper/Brinjal	Vegetative	Blight	<ul style="list-style-type: none"> Plants should be keep weed free and avoid water stagnation Spraying of COC @ 2-3 ml/lit. at weekly interval Five spray of neem based formulation 1500 ppm @ 5 ml/1 lit. of weekly interval for controlling of <i>Aphids</i>
Cole crops/ Tomato	Nursery preparation		<ul style="list-style-type: none"> Start preparation of nursery beds for early and late kharif tomato Use early varieties of cabbage (early ball) cauliflower (white excel), broccoli (Aishwarya) and tomato (varieties Arka rakshak, Arka samrat, and All rounder Apply FYM 2 kg/m², neem cake @ 200 g/m², Trichoderma@ 1 % should be incorporated in soil during nursery bed preparation. Nursery bed should be prepared

			inside the poly tunnel/rain shelter system.
Sikkim Mandarin	Planting/fruiting		<ul style="list-style-type: none"> ◆ Keep the orchard weed free ◆ Digging the pit of 3 feet× 3 feet × 3 feet for transplanting new saplings ◆ Top soil of the pit should be mixed with FYM @20 kg/pit
<i>Animal Sciences and livestock management</i>			
Tibetan Sheep			<ul style="list-style-type: none"> ◆ Recommended for feeding concentrate feed along with mineral mixture and salt. ◆ Hay feeding is recommended.
Yak			<ul style="list-style-type: none"> ◆ Recommended for feeding concentrate feed along with mineral mixture and salt. ◆ Hay feeding is recommended. ◆ Trimming of hair is recommended during summer season
Sheep and Goat			<ul style="list-style-type: none"> ◆ Breeding of the sheep/goat should be done 24-30 hr. after onset of heat. ◆ Feeding of concentrate feed along with jaggery, mineral mixture and salt is recommended. ◆ Periodic application of fly repellents and/or netting of dung pit are recommended
Cattle			<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 within 12-18 hours after onset of heat symptoms ◆ Balanced feeding of dairy animals and allow calf suckling immediately after parturition is recommended. ◆ 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.

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