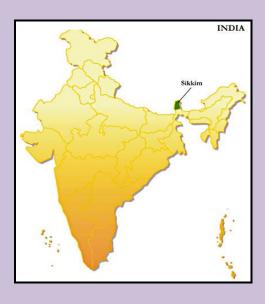


# AGRO-MET ADVISORY BULLETIN FOR THE DISTRICT OF NORTH SIKKIM PERIOD:

#### 17th AUGUST to 21st AUGUST 2019



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





#### ISSUED ON 16th August 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 NORTH-DISTRICT for next five days**

<b>↓Parameter/Date</b> →	17/08/2019	18/08/2019	19/08/2019	20/08/2019	21/08/2019
Rainfall (mm)	Moderate rainfall	Light rainfall	Moderate rainfall	Light rainfall	Light rainfall
Max Temp ( <sup>0</sup> C)	30	29	28	26	27
Min Temp ( <sup>0</sup> C)	20	20	20	20	20
Sky condition	Generally cloudy	Cloudy	Cloudy	Generally cloudy	Generally cloudy
Max RH (%)	92	94	94	92	92
Min RH (%)	85	86	86	85	85
Wind Speed (KmpH)	4	3	3	4	4
Wind Direction (deg)	S	SW	SE	S	SE

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

	Weather for preceding week				
Date	Rainfall	Max. Temp	Min. Temp		
	(mm)	(°C)	(°C)		
13/8/2019	032	N/A	N/A		
14/8/2019	012	26.1	20.7		
15/8/2019	010	29.9	20.4		

### Weather forecast valid up to 21st August 2019

- Probability of Light rainfall to moderate rainfall
- Max temp may be varying from 26-30°C, whereas, Min temp may vary from 0-20°C
- > Sky will remain generally cloudy
- Max RH is likely to be 92-94 %, whereas, Min RH may vary from 85-86 %
- > Wind speed may likely vary from 3-4 km/hr.
- > Wind direction may blow from southerly to south westerly then southeasterly to southerly and finally to southeasterly
- > Weekly cumulative rainfall=90 mm

- **▶** 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 pr Pest/ Dis			Agro-Met Advisories
	Agricultural and Horticultural crops:				
Maize	Transplanting of (vegetative	•	Army worm	<b>\$</b>	Harvest the crop in bright sunny days Green cobs can be harvested to sell in the market.
Rice	Main field prepa transplan			<b>\langle</b>	Apply <i>Azolla</i> in the paddy field Complete the first weeding
Black gram (Pahelo dal)	Land preparati sowin	on/		•	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.

			@ 5-1 @ 2.5	reatment with Trichoderma sp. 0 g/kg seed and soil treatment kg mixed with 50 kg FYM is mended.
Rjmash/Cowpe a	Land preparation/ Sowing		tonnes	ed the land & add 10-15 /ha FYM in the pits or lines in bed, 10-15 days before ag.
Ginger/ Turmeric	Tillering stage		the spr Drench urine fresh c interva  Start s	ve the weeds without breaking routed ginger tillers. In the ginger field with cow at 1:4 (urine: water) ratio or cow dung slurry at fortnightly all praying copper oxy chloride @ o at weekly interval
Large cardamom	Planting		<ul><li>A 2 ye be plan</li><li>A space mainta</li><li>Young not be</li></ul>	ears old nursery suckers should need in the main field cing of 1.8×1.8 m <sup>2</sup> should be
Early kharif vegetables	Vegetative growth			ng and intercultural operation be done
Red cherry pepper/Brinjal	Vegetative	Blight	avoid v Sprayi weekly Five sp 1500 p	should be keep weed free and water stagnation ng of COC @ 2-3 ml/lit. at y interval pray of neem based formulation ppm @ 5 ml/l lit. of weekly all for controlling of <i>Aphids</i>
Cole crops/ Tomato	Nursery preparation		early a ball) brocco (variet and Al Apply 200 g/s be inco	preparation of nursery beds for and late kharif tomato arly varieties of cabbage (early cauliflower (white excel), bli (Aishwarya) and tomato ies Arka rakshak, Arka samrat, I rounder  FYM 2 kg/m², neem cake @ m², Trichoderma@ 1 % should proporated in soil during nursery eparation.  Ty bed should be prepared

				inside the poly tunnel/rain shelter system.
Sikkim Mandarin	Planting/fruiting			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
	Animal Sciences and	livestock	ma	nagement
Tibetan Sheep			<b>\limits</b>	Recommended for feeding
				concentrate feed along with mineral
			_	mixture and salt.
Yak				Hay feeding is recommended.  Recommended for feeding
1 ak			~	Recommended for feeding concentrate feed along with mineral
				mixture and salt.
			<b>\pi</b>	Hay feeding is recommended.
				Trimming of hair is recommended
				during summer season
Sheep and Goat			<b>\limits</b>	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
			Ť	and/or netting of dung pit is
				recommended.
Cattle			<b></b>	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
			<b>*</b>	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		Coccidi	<b></b>	16 hrs of light (natural and electrical)
		osis,		should be provided to adult birds for
		Ranikh		optimum egg production.
		et		Frequent raking and liming of deep
	The same of the sa	disease		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.
			<b>*</b>	Calcium/shell grit and multi vitamin
				supplementation is strongly
				recommended to optimize egg
				production.
			<b>*</b>	Occasional spraying of
				ectoparasiticides viz.,
				deltamethrin/cypermethrin @ 1% v/v
Di a	All stores	Cryina		in water is recommended.
Pig	All stages	Swine fever	<b>*</b>	Keep floor dry to avoid skin diseases.  Weaning is recommended at the age
		level	~	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.
			<b>\oint{\oint}</b>	
			Ť	early morning and late evening is
				recommended.
			<b></b>	Farmers can incorporate low cost
				locally available feed resources
				(60%) for feeding pigs to reduce the
				cost of feeding

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

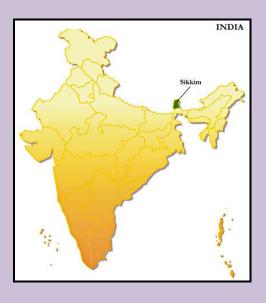


# AGRO-MET ADVISORY BULLETIN FOR THE DISTRICT OF EAST SIKKIM PERIOD:

### 17<sup>th</sup> AUGUST to 21<sup>st</sup> AUGUST 2019



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





#### ISSUED ON 16th August 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 EAST-DISTRICT for next five days**

<b>↓Parameter/Date</b> →	17/08/2019	18/08/2019	19/08/2019	20/08/2019	21/08/2019
Rainfall (mm)	Moderate rainfall	Light rainfall	Moderate rainfall	Light rainfall	Light rainfall
Max Temp ( <sup>0</sup> C)	24	23	22	21	22
Min Temp ( <sup>0</sup> C)	19	19	18	18	18
Sky condition	Generally cloudy	Generally cloudy	Cloudy	Generally cloudy	Generally cloudy
Max RH (%)	92	92	93	92	90
Min RH (%)	84	84	85	84	83
Wind Speed (KmpH)	2	3	3	3	2
Wind Direction (deg)	NE	NE	E	E	SW

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

	Weather for preceding week				
Date Rainfall Max. Temp Min. Temp					
	(mm)	(°C)	(°C)		
13/8/2019	023	20.7	17.5		
14/8/2019	039	20.0	18.5		
15/8/2019	056	23.8	18.0		

#### Weather forecast valid up to 21<sup>st</sup> August 2019

- > Probability of light rainfall to moderate rainfall
- > Max temp may be varying from 21-24°C, whereas, Min temp may vary from 18-19°C
- > Sky will remain generally cloudy
- Max RH is likely to be 90-93 %, whereas, Min RH may vary from 83-85 %
- > Wind speed may likely vary from 2-3 km/hr.
- > Wind direction may blow from northeasterly to easterly and finally to southwesterly
- > Weekly cumulative rainfall= 59 mm

- **▶** 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	Stage	Cultural p	ractices/		Agro-Met Advisories
crop/Animal		Pest/ Dis	eases		
	Agricultural and Horticultural crops:				
Maize	Transplanting of	completed	Army	<b>\limits</b>	Harvest the crop in bright sunny days
	(vegetative	stage)	worm		Green cobs can be harvested to sell in
					the market.
Rice	Main field prepa	aration and			Apply <i>Azolla</i> in the paddy field
	transplan	ting		<b>*</b>	Complete the first weeding
Black gram	Land			<b>\line{\pi}</b>	After harvesting of maize plough the
(Pahelo dal)	preparati				land and apply well decomposed
	sowing	g			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 Trichoderma sp. @ 5-10 g/kg seed and soil treatment
				@ 2.5 kg mixed with 50 kg FYM is
				recommended.
Rjmash/Cowpe	Land preparation/		<b>\limits</b>	Prepared the land & add 10-15
a	Sowing			tonnes/ha FYM in the pits or lines in
				raised bed, 10-15 days before
				planting.
Ginger/	Tillering stage		<b>\limits</b>	Remove the weeds without breaking
Turmeric				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	Planting		<b>\limits</b>	A 2 years old nursery suckers should
cardamom				be planted in the main field
				A spacing of $1.8 \times 1.8 \text{ m}^2$ should be
				maintained.
				Young white coloured roots should
				not be destroy while planting, while
				old roots should trimmed out.
Early kharif	Vegetative growth		<b>\limits</b>	Weeding and intercultural operation
vegetables	-			should be done
D 1 1	**	D11 1	•	
Red cherry	Vegetative	Blight		Plants should be keep weed free and
pepper/Brinjal			_	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 Aphids
Cole crops/	Nursery preparation		<b>\lambda</b>	Start preparation of nursery beds for
Tomato				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/m <sup>2</sup> , neem cake @
				200 g/m <sup>2</sup> , Trichoderma@ 1 % should
				be incorporated in soil during nursery
				bed preparation.

		Nursery bed should be prepared
		inside the poly tunnel/rain shelter
		system.
Sikkim	Planting/fruiting	★ Keep the orchard weed free
Mandarin		$ ightharpoonup$ Digging the pit of 3 feet $\times$ 3 feet $\times$ 3
		feet for transplanting new saplings
		Top soil of the pit should be mixed
		with FYM @20 kg/pit
	Animal Sciences and	livestock management
Tibetan Sheep		Recommended for feeding
		concentrate feed along with mineral
		mixture and salt.
		Hay feeding is recommended.
Yak		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		♦ 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		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.
		r

				Engagement in a small state of the state of
			~	Frequent incomplete milking at
				interval of 4hrs should be practiced
				after parturition for minimum 1 week.
				Later on, complete milking in
D 1		G 111		subsequent day is recommended.
Poultry		Coccidi	<b>\Pi</b>	16 hrs of light (natural and electrical)
		osis,		should be provided to adult birds for
		Ranikh		optimum egg production.
		et		Frequent raking and liming of deep
		disease		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	<b></b>	Keep floor dry to avoid skin diseases.
		fever		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
				cost of feeding

#### Agro-Met Advisory member of ICAR-NOFRI and KVK- East Sikkim **Designation Department** Name Dr. R. K. Avasthe **Joint Director** Soil Science Dr. Raghavendra Singh Senior scientist Agronomy 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 Sh. Santanu Das Agril. Meteorology SMS Miss Tirtha Kumari Chettri Biochemistry Met. Observer



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

#### 17th AUGUST to 21st AUGUST 2019







#### ISSUED ON 16th August 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 SOUTH-DISTRICT for next five days**

<b>↓Parameter/Date</b> →	17/08/2019	18/08/2019	19/08/2019	20/08/2019	21/08/2019
Rainfall (mm)	Light rainfall	Light rainfall	Light rainfall	Light rainfall	Light rainfall
Max Temp ( <sup>0</sup> C)	29	28	27	25	26
Min Temp ( <sup>0</sup> C)	20	20	19	19	19
Sky condition	Generally cloudy	Generally cloudy	Cloudy	Generally cloudy	Generally cloudy
Max RH (%)	90	90	92	91	91
Min RH (%)	83	83	85	83	83
Wind Speed (KmpH)	4	4	2	2	3
Wind Direction (deg)	S	S	E	E	S

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

	Weather for preceding week					
Date	Rainfall	Max. Temp	Min. Temp			
	(mm)	(°C)	(°C)			
13/8/2019						
14/8/2019						
15/8/2019						

#### Weather forecast valid up to 21st August 2019

- There will be chances of light rainfall
- > Max temp may be varying from 25-29°C, whereas, Min temp may vary from 19-20°C
- > Sky will remain generally cloudy
- Max RH is likely to be 90-92 %, whereas, Min RH may vary from 83-85 %
- > Wind speed may likely vary from 2-4 km/hr.
- > Wind direction may blow from southerly to easterly and finally to southerly
- > Weekly cumulative rainfall= 34 mm

- **▶** 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	Stage	Cultural p	ractices/		Agro-Met Advisories
crop/Animal		Pest/ Dis	eases		
Agricultural and Horticultural crops:					
Maize	Transplanting of	completed	Army	<b>\limits</b>	Harvest the crop in bright sunny days
	(vegetative	stage)	worm		Green cobs can be harvested to sell in
					the market.
Rice	Main field prepa	aration and			Apply <i>Azolla</i> in the paddy field
	transplan	ting		<b>*</b>	Complete the first weeding
Black gram	Land			<b>\limits</b>	After harvesting of maize plough the
(Pahelo dal)	preparati				land and apply well decomposed
	sowing	g			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 Trichoderma sp.  @ 5-10 g/kg seed and soil treatment
				@ 2.5 kg mixed with 50 kg FYM is
				recommended.
Rjmash/Cowpe	Land preparation/		<b></b>	Prepared the land & add 10-15
a	Sowing			tonnes/ha FYM in the pits or lines in
				raised bed, 10-15 days before
				planting.
Ginger/	Tillering stage		<b>\limits</b>	Remove the weeds without breaking
Turmeric				the sprouted ginger tillers.
			<b>\limits</b>	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	Planting		<b>\oint\oint\oint\oint\oint\oint\oint\oint</b>	A 2 years old nursery suckers should
cardamom				be planted in the main field
				A spacing of $1.8 \times 1.8 \text{ m}^2$ should be
				maintained.
				Young white coloured roots should
				not be destroy while planting, while
				old roots should trimmed out.
Early kharif	Vegetative growth		<b></b>	Weeding and intercultural operation
vegetables				should be done
D 1 1	**	DI 1		
Red cherry	Vegetative	Blight	<b>*</b>	Plants should be keep weed free and
pepper/Brinjal				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 Aphids
Cole crops/	Nursery preparation		<b></b>	Start preparation of nursery beds for
Tomato				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/m <sup>2</sup> , neem cake @
				200 g/m <sup>2</sup> , Trichoderma@ 1 % should
				be incorporated in soil during nursery
				bed preparation.

		Nursery bed should be prepared
		inside the poly tunnel/rain shelter
		system.
Sikkim	Planting/fruiting	
Mandarin		$ ightharpoonup$ Digging the pit of 3 feet $\times$ 3 feet $\times$ 3
		feet for transplanting new saplings
		Top soil of the pit should be mixed
		with FYM @20 kg/pit
	Animal Sciences and	livestock management
Tibetan Sheep		Recommended for feeding
		concentrate feed along with mineral
		mixture and salt.
		Hay feeding is recommended.
Yak		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		♦ 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		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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				T
			~	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		Coccidi	<b>*</b>	16 hrs of light (natural and electrical)
Tourny		osis,	~	should be provided to adult birds for
		Ranikh		optimum egg production.
		et		Frequent raking and liming of deep
	and the second	disease		litter materials is recommended.
		arscase	<b>\limits</b>	Inclusion of turmeric powder @
			ľ	10g/kg in poultry feed for prevention
				of Coccidiosis is recommended.
			<b>\oint{\oint}</b>	Maintenance of brooder temperature
				for chicks with the help of electrical
				bulbs for initial one month.
			<b>\limits</b>	Ranikhet vaccination for poultry at 5-
				7 days and at 28-30 days of age is
				highly recommended.
			<b>\limits</b>	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		Keep floor dry to avoid skin diseases.
		fever		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.
			<b>*</b>	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 **Designation Department** Name Dr. R. K. Avasthe **Joint Director** Soil Science Dr. Raghavendra Singh Senior scientist Agronomy 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 Sh. Santanu Das Agril. Meteorology SMS Miss Tirtha Kumari Chettri Biochemistry Met. Observer



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

#### 17th AUGUST to 21st AUGUST 2019



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





#### ISSUED ON 16th August 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 WEST-DISTRICT for next five days**

<b>↓Parameter/Date</b> →	17/08/2019	18/08/2019	19/08/2019	20/08/2019	21/08/2019
Rainfall (mm)	Light rainfall	Light rainfall	Light rainfall	Light rainfall	Light rainfall
Max Temp ( <sup>0</sup> C)	28	27	26	25	26
Min Temp ( <sup>0</sup> C)	19	19	18	18	18
Sky condition	Cloudy	Generally cloudy	Cloudy	Generally cloudy	Generally cloudy
Max RH (%)	93	92	93	92	92
Min RH (%)	85	84	85	84	84
Wind Speed (KmpH)	4	4	3	3	4
Wind Direction (deg)	N	N	S	N	S

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

	Weather for preceding week					
Date	Rainfall	Max. Temp	Min. Temp			
	(mm)	(°C)	(°C)			
13/8/2019	009	24.1	17.5			
14/8/2019	020	23.9	18.1			
15/8/2019	013	26.8	17.6			

#### Weather forecast valid up to 21st August 2019

- > Probability of light rainfall
- Max temp may be varying from 25-28°C, whereas, Min temp may vary from 18-19°C
- > Sky will remain generally cloudy
- Max RH is likely to be 92-93%, whereas, Min RH may vary from 84-85 %
- > Wind speed may likely vary from 3-4 km/hr.
- > Wind direction may blow from northerly to southerly
- > Weekly cumulative rainfall= 42 mm

- **▶** 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 pr Pest/ Dis			Agro-Met Advisories
Agricultural and Horticultural crops:					
Maize	Transplanting of (vegetative	•	Army worm	<b>\$</b>	Harvest the crop in bright sunny days Green cobs can be harvested to sell in the market.
Rice	Main field prepa transplan			<b>\$</b>	Apply <i>Azolla</i> in the paddy field Complete the first weeding
Black gram (Pahelo dal)	Land preparati sowin	on/		•	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> <li>Seed treatment with Trichoderm</li> <li>6 5-10 g/kg seed and soil treat</li> <li>2.5 kg mixed with 50 kg FY recommended.</li> </ul>	ment
Rjmash/Cowpe a	Land preparation/ Sowing		Prepared the land & add 1 tonnes/ha FYM in the pits or lin raised bed, 10-15 days be planting.	
Ginger/ Turmeric	Tillering stage		<ul> <li>Remove the weeds without breathe sprouted ginger tillers.</li> <li>Drench the ginger field with urine at 1:4 (urine: water) rations fresh cown dung slurry at fortning interval</li> <li>Start spraying copper oxy chlorid 0.25 % at weekly interval</li> </ul>	cow to or ghtly
Large cardamom	Planting		<ul> <li>A 2 years old nursery suckers she planted in the main field</li> <li>A spacing of 1.8×1.8 m² shoul maintained.</li> <li>Young white coloured roots should roots should trimmed out.</li> </ul>	d be
Early kharif vegetables	Vegetative growth		Weeding and intercultural oper should be done	ation
Red cherry pepper/Brinjal	Vegetative	Blight	<ul> <li>Plants should be keep weed free avoid water stagnation</li> <li>Spraying of COC @ 2-3 ml/liweekly interval</li> <li>Five spray of neem based formul 1500 ppm @ 5 ml/l lit. of we interval for controlling of Aphids</li> </ul>	it. at
Cole crops/ Tomato	Nursery preparation		<ul> <li>Start preparation of nursery bed early and late kharif tomato</li> <li>Use early varieties of cabbage (ball) cauliflower (white expected to the early varieties)</li> </ul>	early (cel), mato mrat, (ce @ nould rsery

				inside the poly tunnel/rain shelter
				system.
Sikkim	Planting/fruiting		<b>\limits</b>	Keep the orchard weed free
Mandarin				Digging the pit of 3 feet $\times$ 3 feet $\times$ 3
				feet for transplanting new saplings
				Top soil of the pit should be mixed
				with FYM @20 kg/pit
	Animal Sciences and I	livestock	ma	nnagement
Tibetan Sheep			<b>\pi</b>	Recommended for feeding
				concentrate feed along with mineral
				mixture and salt.
				Hay feeding is recommended.
Yak				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				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			<b>*</b>	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
			<b>*</b>	Balanced feeding of dairy animals
				and allow calf suckling immediately
			_	after parturition is recommended.
			<b>*</b>	Colostrum (first three days milk)
				feeding to new born calf for first three
			_	days of life should be ensured.
			<b>*</b>	Full hand milking should be
				practiced.
			<b>*</b>	Frequent incomplete milking at
				interval of 4hrs should be practiced
				after parturition for minimum 1 week.

			Later on, complete milking in
Poultry		Coccidi osis, Ranikh et disease	subsequent day is recommended.  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
Pig	All stages	Swine fever	<ul> <li>in water is recommended.</li> <li>♦ Keep floor dry to avoid skin diseases.</li> <li>♦ Weaning is recommended at the age of 8 weeks for crossbreds and 10 weeks for indigenous pigs.</li> <li>♦ Swine fever vaccine at the age of 3 months followed by annual booster dose is recommended.</li> <li>♦ Critical heat detection of sow/ gilt in early morning and late evening is recommended.</li> <li>♦ Farmers can incorporate low cost locally available feed resources (60%) for feeding pigs to reduce the cost of feeding</li> </ul>

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