STATE COMPOSITE AGRO-MET ADVISORY BULLETIN FOR THE STATE OF SIKKIM
PERIOD: 23RD SEPTEMBER – 25TH SEPTEMBER"2014

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

ISSUED ON TUESDAY 23RD SEPTEMBER'2014 BY

Meteorological Sub-division of Sikkim

As per India Meteorological Department's classification, Sikkim is a part of Met Sub-Division of Sub Himalayan West Bengal & Sikkim (SHWB & SKM) and is divided into four (4) Districts:

1) North District with HQ at Mangan
2) East District with HQ at Gangtok
3) West District with HQ at Gyalsing
4) South District with HQ at Namchi

Mangan (AWS)				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	Generally Cloudy	Generally Cloudy	Generally Cloudy	Generally Cloudy
19/9/2014	001	28.1	19.1	Rainfall	Light	Moderate	Light	Light	Light
20/9/2014	013	24.1	18.7	Wind (Speed/ Dir)	1KT(SSE)	2KT(SSE)	3KT(SSE)	1KT(SSE)	2KT(SE)
21/9/2014	017	22.9	19.1	Temperature (Min-Max)	19 - 26°C	19 - 25°C	19 - 25°C	19 - 26°C	19 - 26°C
22/9/2014	003	23.7	18.1	RH (Min-Max)	76 - 92%	74 - 91%	80 - 94%	74 - 91%	79 - 93%

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	Generally Cloudy	Generally Cloudy	Generally Cloudy	Generally Cloudy
19/9/2014	012	21.3	18.4	Rainfall	Light	Light	Light	Light	Light
20/9/2014	006	19.1	17.0	Wind (Speed/ Dir)	1KT(ESE)	2KT(ESE)	1KT(ESE)	2KT(ESE)	2KT(ENE)
21/9/2014	023	18.6	17.0	Temperature (Min-Max)	16 - 21°C	17 - 20°C	17 - 20°C	17 - 21°C	17 - 21°C
22/9/2014	005	19.4	16.0	RH (Min-Max)	80 - 91%	82 - 93%	79 - 92%	78 - 93%	83 - 94%

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
19/9/2014	000	29.0	19.0	Rainfall	Very Light	Very Light	Light	Light	Light
20/9/2014	007	23.0	19.5	Wind (Speed/ Dir)	1KT(ESE)	2KT(SE)	1KT(ESE)	2KT(ESE)	3KT(E)
21/9/2014	057	24.0	17.5	Temperature (Min-Max)	19 - 27°C	19 - 26°C	19 - 26°C	19 - 26°C	19 - 26°C
22/9/2014	007	25.0	18.5	RH (Min-Max)	78 - 91%	79 - 92%	78 - 92%	78 - 92%	80 - 91%

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
19/9/2014	000	N/A	17.6	Rainfall	Very Light	Light	Very Light	Light	Light
20/9/2014	003	N/A	18.4	Wind (Speed/ Dir)	1KT(ESE)	2KT(ESE)	3KT(E)	1KT(E)	2KT(E)
21/9/2014	001	N/A	16.9	Temperature (Min-Max)	24/17	23/17	23/17	24/17	24/17
22/9/2014	001	N/A	15.6	RH (Min-Max)	93/78	92/80	92/78	91/76	93/80

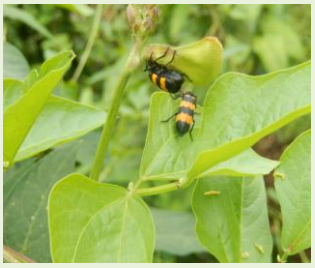
Part II

AGRO-METEREOLOGICAL ADVISORIES

General Advisories for all the crops

- Conservation of soil moisture through locally available biomass mulching in all the crops.
- Preventive spray and soil drenching with copperoxychloride@2.5 g/l of water at weekly intervals.
- Spraying of plant protection biopesticides in the evening.
- Field preparation for early *Rabi* vegetable crops like cole crops, pea, leafy vegetables, tomato *etc* and fodder crops(oat/berseem).
- Water harvesting and storage in various structures like *Jalkund* is recommended for cultivation of *Rabi* crops.

Name of the crop/Animal	Stage	Pest/ Disease	Agro-Met Advisories
Crops			
Rice	Booting/ Panicle initiation	❖ Blast of rice  ❖ Leaf folder 	◈ Maintain 2-3 cm water in the field. ◈ Spray copper oxychloride @2.5 g/l for rice blast. ◈ Spraying of *Pseudomonas fluorescens* @ 0.2% for management of blast and sheath blight at weekly intervals. ◈ Spray neem based formulation (1500ppm) @ 3ml per litre of water for controlling leaf folder. ◈ Monitor regularly and unfold the leaves folded by the leaf folder; and manually collect and destroy.

Soybean	Harvesting stage		◈ Proper drainage should be maintained. ◈ Harvesting should be done when pod turns yellowish colour.
Pahenlo dal /Kalo Dal (*urd* bean)	Vegetative/ flowering/ Pod initiation		◈ Proper drainage should be maintained ◈ Spray neem based formulation (1500 ppm) @ 3ml per litre of water for controlling leaf feeding beetles. ◈ Spray COC (0.25%) or Bordeaux mixture @ 1% at weekly intervals for the management of various leaf spot diseases.
Finger millet	Flowering		◈ Ensure proper drainage to avoid water logging.
Rape seed and mustard	Sowing		◈ Field preparation for sowing of both the crops @ 4-5 kg seed/ha. ◈ FYM application @ 5-10 t/ha and vermicompost @ 2 t/ha is recommended.
Beans	Flowering/ Pod initiation	❖ Blister beetle may occur and destroy flowers.  ❖ Powdery mildew	◈ Handpicking is effective to control this pest. ◈ Collection and destruction of initial infected plant parts. ◈ Spray wettable sulphur @ 2 g/l to control powdery mildew. ◈ Proper drainage should be maintained ◈ Spray COC (0.25%) or Bordeaux mixture @ 1% at weekly intervals for the management of various leaf spot diseases.
Rajmash	Sowing		◈ After field preparation sowing should be completed @ 75-80 kg seed /ha at the earliest.
Large cardamom	Capsule formation/ Harvesting	❖ Infestation of shoot flies and stem borer.	◈ Collection and destruction of infested tillers. Spraying of neem formulation (1500 ppm) @ 3 ml/l. ◈ Collection and destruction of disease infected plants/ tillers. ◈ Harvesting of mature capsule and removal of unproductive and old tillers should be done as early as possible.
Cole crops	--		◈ Time for nursery raising of cabbage, cauliflower and broccoli under low

			cost structure. ◈ If nurseries are ready then transplanting can be done. ◈ Dolomite application @ 200g/sqm for soil having pH less than 5.5. ◈ Soil drenching of nursery bed with copper oxychloride @2.5 g/ l or Bordeaux mixture @ 1% to prevent damping off. ◈ Soil application of *Trichoderma viride* @ 2.5 kg mixed with 50kg well decomposed FYM for 1 ha. ◈ Prepare 15cm raised bed nursery of 1m width. ◈ Well-decomposed FYM @ 2.5 kg/sqm to be applied during nursery bed preparation.
Dalley Chilli	Fruiting/ Harvesting	❖ Fruit fly damage	◈ Proper drainage should be maintained. ◈ Fallen fruits should be collected and destroyed to minimize fruit fly.
Sikkim Mandarin	Fruit growth	❖ Aphid ❖  ❖ Leaf miner  ❖ Mealy bug 	◈ Proper drainage should be maintained. ◈ Basin of plants should be cleaned. ◈ Spray petroleum oil based agro-spray @ 10 ml/l for managing aphid, leaf miner, mealy bug etc. ◈ Regular monitoring and cleaning of infested trunk. Plug the holes with cotton soaked in kerosene/petrol and plaster with mixture of cow dung and soil. ◈ Spray copper oxychloride @ 2.5 g/ l to manage citrus scab.

		❖ Trunk borer  ❖ Scab 	
Animal Sciences			
Tibetan Sheep	Full grown wool	Chances of soiling and picking infection.	◈ Go for shearing and followed by spraying or Dipping in ectoparasitic solution.
Yak, Tibetan Sheep	Breeding season	Weight gain	◈ Start observing heat sign. ◈ Collection and preservation of green fodder for hay purpose.
Cattle, Sheep and Goat	All stages	Plenty of green pasture/ fodder available in the field.	◈ Chances of coming into estrus so farmers are advised to look for heat sign especially during early morning or late evening and ensure breeding of the animal after 12 hr of 1st heat observe. ◈ FMD vaccination is recommended.
Poultry	All stages	High humidity	◈ Frequent raking and liming of deep litter materials.
Pig	All stages	High humidity	◈ Keep floor dry to avoid skin diseases.