

#### ICAR Research Complex for N.E.H. Region Manipur Centre, Lamphelpat, Imphal - 795 004



#### "Integrated Agromet Advisory Services"

#### MANIPUR BULLETIN 20<sup>th</sup> January, 2015

#### Churachandpur

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 21<sup>st</sup> to 25<sup>th</sup> January, 2014 as below:

# Significant past weather for the preceding bi-weekly of Imphal - West $(16^{th}\ to\ 19^{th}\ January,\ 2015)$

During past four days sky was mainly clear to partly cloudy but mainly cloudy to cloudy from afternoon hours of  $17^{th}$  to morning of  $18^{th}$  Jan. **19.6 mm** rainfall was recorded during past four days. Maximum temperature range observed was 19.5-24.4 °C, range of minimum temperature observed was 5.5-11.1 °C, mean relative humidity observed in morning and afternoon were 89.3 % and 51.0 % respectively. The average wind speed range was 0.8-1.7 km/hr.

## Weather forecast for next five days of Churachandpur (21st to 25th January, 2014)

There may be no rain upto Sunday. Sky will be mainly clear to partly cloudy with maximum temp. of 24.0-26.0 °C & minimum temp. 4.0-6.0 °C. Relative humidity may reach upto 99 % (maximum RH) & 42 % (minimum RH). The average wind speed may be 3-4 km/ hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rapeseed/	Flowering to siliqua		Top-dress with 32.5 kg Urea/ ha at 60 days after sowing.
mustard	formation		- During flowering four bee boxes may be kept in one hectare crop area. Avoid spray of insecticides in such area.
		Aphid	- Use yellow plates for every 3 sq.m to attract the aphids or spray Pyrethrum @ 2ml/ litre of water on the infected patches.
		Downy Mildew	Spray Triademefon (Bayleton) 50 WP @ 10g/15litres of water (2-3 sprays) at 15 days interval as soon as the symptoms start appearing on the plants.
		Hairy caterpillar	- Spray Quinalphos or Chloropyriphos @ 2ml/litre of water on the infected patches only.
Pulses (Field pea/	Vegetative to flowering	Aphid	- Spray Cypermethrin @2ml/lit of water against aphid on the infected patches only.
Lentil)	Powdery Mildew	- Spray Bayleton (Triademefon 25%WP) @ 7.5 g/ pump or Dinocap (Karathane 46% EC) @ 7.5ml/ pump.	
Potato	Vegetative		Earthing up may be done when the plant is 15cm high (or 35-40 days old).
		Cut worm	If cut-worm is observed then prepare poison bait of Trichlorfon (mixture of 1kg husk + 40g sugar + 5g Trichlorfon + water) and apply manually by putting near the stem of plant above the soil surface.
Rice	Sowing of winter rice		Sowing of winter rice may be started near lakes.
Storage			- Dry, clean and store the seeds in RC-seed bins after proper drying of seeds and charcoal. Check for moisture content or weight of seeds After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops			
Cucurbits	Sowing		- Continue raising of cucurbits like bitter gourd, bottle gourd, cucumber, sponge gourd, etc. in poly pouch under low cost polyhouse.
	Transplanting		<ul> <li>Transplant already raised 4-leaf stage seedlings raised under low cost polyhouse.</li> <li>Light watering in the morning hours may be done</li> </ul>
Onion	Vegetative		30 to 45 days old transplanted onion should be top dressed with 20- 25 kg urea/ ha depending upon the fertility.



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## "Integrated Agromet Advisory Services"

Vegetable c	rops	Land preparation	n	Pre-mature wilting	To avoid pre-mature wilting, soil must be well exposed to sun after
					ploughing. As prophylactic measure, a dormant spray of Bordeaux
					mixture (1:1:100) using 100 litres of water / sangam at least once in this week and another after 20-25 days.
					- Treat seed with Carbendazim @ 2-3g/ kg seed.
French bear	n	Land preparation	n		- Sowing of French bean may be done in prepared land. Seed rate for
French bear	ш	and sowing	11		dwarf varieties like Pant Anupam & Arka Komal is 65kg/ha (spacing
		and so wing			is 30x45 cm from seed to seed and row to row) and 25-30kg/ha for
					pole-type (spacing is 60x60cm with 2-3 seeds per hill).
					- Give light irrigation after 2-3 days of sowing.
Animal Sci		Τ~ .	1		
Name of the an	imal	Growth stage		Disease/ infestation	Agro-meteorological advisories
Poultry		All susceptible age		Coccidiosis	Give Coximar @ 2g/lit of drinking water for 5-7 days.
		groups (as and who required)	en	Ranikhet disease	1. F-1 Strain may be first administered within 7 days of age and
		required)			second dose may be given at 30days for all birds.
					2. R <sub>2</sub> B vaccine of 8-9 weeks of age group birds (layers).
					3. Killed ND virus vaccine of 16-18 weeks of age group birds
			}	Managamant	<ul><li>(layers).</li><li>Mix deactivated lime powder @ 2 kg per 100 sq. ft. area in litter</li></ul>
				Management	material to prevent from caking.
					- Increase energy feed upto 5% (like maize, rice bran, etc.).
					- Add antibiotic, Hostacycline/ Duaprin @ 2 g/ lit of drinking water
					for 7 days along with vitamin A, vitamin B & vitamin C.
Sheep/ Goat		Above 3 months of age (as and when		Contagious Caprine	- Vaccinate against Contagious Caprine Pluero-pneumonia intra-
				Pluero-pneumonia	dermally.
		required)		(CCPP) in goat	
				Ectoparasite	Use Butox liq. @ 2ml/ 4 litres of water and wash the animal with the solution.
Pig		Above 3 months o	of	Swine Fever	- Vaccinate against swine fever after the age of 3 months.
		age (as and when required)		Skin infection	Give Ivermectin (Indectin tab.) @ 10mg/33kg body weight.
		required)		Deworming	- Deworm using Piperazine citrate @ 30 ml per adult animal once.
				Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
Cattle / Buffalo/ Mithun		Above 3 months o	of	Deworming	Deworm using TolzanF @ 100ml/300kg body weight.
		age (as and when required)	-	F.M.D.	- Vaccinate against F.M.D.
		1		Ticks/ Wounds	Topicure spray may be used twice daily on the affected parts.
Fishery:			1		
Type of Stage &		Agro	-metrological advisories		
Farming Carp/	Manage Stock t	maintenance	- Sto	ock fish for next season	n and for this practices mentioned below may be done in small scale.
Cat p/ Catfish	SIUCKI	mamichance			n unwanted vegetation and insects and water depth should be
culture				ntained at 1.0 - 1.5 m.	in an in anice . Egotation and insects and water depair should be
					1 1-2 times a day @ 2-3% body weight per day.
			- Well balanced feed fortified with vitamins and minerals should be provided.		
		- Ap	ply Green AQ @ 4litr	e/ ha or lime @ 200kg/ ha. Maintain good quality of pond water.	



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# MANIPUR BULLETIN 20<sup>th</sup> January, 2015

#### Imphal-East

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 21<sup>st</sup> to 25<sup>th</sup> January, 2014 as below:

# Significant past weather for the preceding bi-weekly of Imphal - West $(16^{th}\ to\ 19^{th}\ January,\ 2015)$

During past four days sky was mainly clear to partly cloudy but mainly cloudy to cloudy from afternoon hours of  $17^{th}$  to morning of  $18^{th}$  Jan. **19.6 mm** rainfall was recorded during past four days. Maximum temperature range observed was 19.5-24.4 °C, range of minimum temperature observed was 5.5-11.1 °C, mean relative humidity observed in morning and afternoon were 89.3 % and 51.0 % respectively. The average wind speed range was 0.8-1.7 km/hr.

## Weather forecast for next five days of Imphal-East (21st to 25th January, 2014)

There may be no rain upto Sunday. Sky will be mainly clear to partly cloudy with maximum temp. of  $24.0-26.0\,^{\circ}\text{C}$  & minimum temp.  $2.0-4.0\,^{\circ}\text{C}$ . Relative humidity may reach upto 99 % (maximum RH) & 38 % (minimum RH). The average wind speed may be 2-4 km/ hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops		4	
Rapeseed/	Flowering to siliqua		Top-dress with 32.5 kg Urea/ ha at 60 days after sowing.
mustard	formation		- During flowering four bee boxes may be kept in one hectare crop area. Avoid spray of insecticides in such area.
		Aphid	- Use yellow plates for every 3 sq.m to attract the aphids or spray Pyrethrum @ 2ml/ litre of water on the infected patches.
		Downy Mildew	Spray Triademefon (Bayleton) 50 WP @ 10g/15litres of water (2-3 sprays) at 15 days interval as soon as the symptoms start appearing on the plants.
		Hairy caterpillar	- Spray Quinalphos or Chloropyriphos @ 2ml/litre of water on the infected patches only.
Pulses (Field pea/	Vegetative to flowering	Aphid	- Spray Cypermethrin @2ml/lit of water against aphid on the infected patches only.
Lentil)		Powdery Mildew	- Spray Bayleton (Triademefon 25%WP) @ 7.5 g/ pump or Dinocap (Karathane 46% EC) @ 7.5ml/ pump.
Potato	Vegetative		Earthing up may be done when the plant is 15cm high (or 35- 40 days old).
		Cut worm	If cut-worm is observed then prepare poison bait of Trichlorfon (mixture of 1kg husk + 40g sugar + 5g Trichlorfon + water) and apply manually by putting near the stem of plant above the soil surface.
Rice	Sowing of winter rice		Sowing of winter rice may be started near lakes.
Storage			- Dry, clean and store the seeds in RC-seed bins after proper drying of seeds and charcoal. Check for moisture content or weight of seeds. After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops			
Cucurbits	Sowing		- Continue raising of cucurbits like bitter gourd, bottle gourd, cucumber, sponge gourd, etc. in poly pouch under low cost polyhouse.
	Transplanting		- Transplant already raised 4-leaf stage seedlings raised under low cost polyhouse.
Onion	Vegetative		<ul> <li>Light watering in the morning hours may be done</li> <li>30 to 45 days old transplanted onion should be top dressed with 20-25 kg urea/ ha depending upon the fertility.</li> </ul>



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Vegetable o	erops	Land preparation	Pre-mature wilting	To avoid pre-mature wilting, soil must be well exposed to sun after ploughing. As prophylactic measure, a dormant spray of Bordeaux mixture (1:1:100) using 100 litres of water / sangam at least once in this week and another after 20-25 days.
				- Treat seed with Carbendazim @ 2-3g/ kg seed.
French bea	n	Land preparation and sowing	1	- Sowing of French bean may be done in prepared land. Seed rate for dwarf varieties like Pant Anupam & Arka Komal is 65kg/ha (spacing is 30x45 cm from seed to seed and row to row) and 25-30kg/ha for pole-type (spacing is 60x60cm with 2-3 seeds per hill).  - Give light irrigation after 2-3 days of sowing.
Animal Sc	iences			
Name of the ar	nimal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry		All susceptible ago		Give Coximar @ 2g/lit of drinking water for 5-7 days.
Touting		groups (as and wh required)	Ranikhet disease	<ol> <li>F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds.</li> <li>R<sub>2</sub>B vaccine of 8-9 weeks of age group birds (layers).</li> <li>Killed ND virus vaccine of 16-18 weeks of age group birds (layers).</li> </ol>
			Management	<ul> <li>Mix deactivated lime powder @ 2 kg per 100 sq. ft. area in litter material to prevent from caking.</li> <li>Increase energy feed upto 5% (like maize, rice bran, etc.).</li> <li>Add antibiotic, Hostacycline/ Duaprin @ 2 g/ lit of drinking water for 7 days along with vitamin A, vitamin B &amp; vitamin C.</li> </ul>
Sheep/ Goa	t	Above 3 months of age (as and when required)	f Contagious Caprine Pluero-pneumonia (CCPP) in goat	- Vaccinate against Contagious Caprine Pluero-pneumonia intradermally.
			Ectoparasite	Use Butox liq. @ 2ml/ 4 litres of water and wash the animal with the solution.
Pig		Above 3 months of	f Swine Fever	- Vaccinate against swine fever after the age of 3 months.
		age (as and when	Skin infection	Give Ivermectin (Indectin tab.) @ 10mg/33kg body weight.
		required)	Deworming	- Deworm using Piperazine citrate @ 30 ml per adult animal once.
			Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
Cattle / Buffa	ılo/	Above 3 months of	f Deworming	Deworm using TolzanF @ 100ml/300kg body weight.
Mithun		age (as and when	F.M.D.	- Vaccinate against F.M.D.
		required)	Ticks/ Wounds	Topicure spray may be used twice daily on the affected parts.
Fishery:			J_	.1
Type of Farming	Stage & Management		Agro-metrological advisories	
Carp/ Catfish culture	Stock maintenance		<ul> <li>Ponds should be free fromaintained at 1.0 - 1.5 m.</li> <li>Feeds should be provide</li> <li>Well balanced feed forti</li> </ul>	on and for this practices mentioned below may be done in small scale.  om unwanted vegetation and insects and water depth should be  ed 1-2 times a day @ 2-3% body weight per day.  fied with vitamins and minerals should be provided.  re/ ha or lime @ 200kg/ ha. Maintain good quality of pond water.



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# MANIPUR BULLETIN 20<sup>th</sup> January, 2015

#### Imphal-West

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During past four days sky was mainly clear to partly cloudy but mainly cloudy to cloudy from afternoon hours of  $17^{th}$  to morning of  $18^{th}$  Jan. **19.6 mm** rainfall was recorded during past four days. Maximum temperature range observed was 19.5-24.4 °C, range of minimum temperature observed was 5.5-11.1 °C, mean relative humidity observed in morning and afternoon were 89.3 % and 51.0 % respectively. The average wind speed range was 0.8-1.7 km/hr.

## Weather forecast for next five days of Imphal-West (21st to 25th January, 2014)

There may be no rain upto Sunday. Sky will be mainly clear to partly cloudy with maximum temp. of  $23.0-26.0\,^{\circ}\text{C}$  & minimum temp.  $3.0-6.0\,^{\circ}\text{C}$ . Relative humidity may reach upto 99 % (maximum RH) & 36 % (minimum RH). The average wind speed may be 2-4 km/ hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops		4	
Rapeseed/	Flowering to siliqua		Top-dress with 32.5 kg Urea/ ha at 60 days after sowing.
mustard	formation		- During flowering four bee boxes may be kept in one hectare crop area. Avoid spray of insecticides in such area.
		Aphid	- Use yellow plates for every 3 sq.m to attract the aphids or spray Pyrethrum @ 2ml/ litre of water on the infected patches.
		Downy Mildew	Spray Triademefon (Bayleton) 50 WP @ 10g/15litres of water (2-3 sprays) at 15 days interval as soon as the symptoms start appearing on the plants.
		Hairy caterpillar	- Spray Quinalphos or Chloropyriphos @ 2ml/litre of water on the infected patches only.
Pulses (Field pea/	Vegetative to flowering	Aphid	- Spray Cypermethrin @2ml/lit of water against aphid on the infected patches only.
Lentil)		Powdery Mildew	- Spray Bayleton (Triademefon 25%WP) @ 7.5 g/ pump or Dinocap (Karathane 46% EC) @ 7.5ml/ pump.
Potato	Vegetative		Earthing up may be done when the plant is 15cm high (or 35- 40 days old).
		Cut worm	If cut-worm is observed then prepare poison bait of Trichlorfon (mixture of 1kg husk + 40g sugar + 5g Trichlorfon + water) and apply manually by putting near the stem of plant above the soil surface.
Rice	Sowing of winter rice		Sowing of winter rice may be started near lakes.
Storage			- Dry, clean and store the seeds in RC-seed bins after proper drying of seeds and charcoal. Check for moisture content or weight of seeds. After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops			
Cucurbits	Sowing		- Continue raising of cucurbits like bitter gourd, bottle gourd, cucumber, sponge gourd, etc. in poly pouch under low cost polyhouse.
	Transplanting		- Transplant already raised 4-leaf stage seedlings raised under low cost polyhouse.
Onion	Vegetative		<ul> <li>Light watering in the morning hours may be done</li> <li>30 to 45 days old transplanted onion should be top dressed with 20-25 kg urea/ ha depending upon the fertility.</li> </ul>



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## "Integrated Agromet Advisory Services"

Vegetable o	erops	Land preparation	Pre-mature wilting	To avoid pre-mature wilting, soil must be well exposed to sun after ploughing. As prophylactic measure, a dormant spray of Bordeaux mixture (1:1:100) using 100 litres of water / sangam at least once in this week and another after 20-25 days.
				- Treat seed with Carbendazim @ 2-3g/ kg seed.
French bea	n	Land preparation and sowing	1	- Sowing of French bean may be done in prepared land. Seed rate for dwarf varieties like Pant Anupam & Arka Komal is 65kg/ha (spacing is 30x45 cm from seed to seed and row to row) and 25-30kg/ha for pole-type (spacing is 60x60cm with 2-3 seeds per hill).  - Give light irrigation after 2-3 days of sowing.
Animal Sc	iences			
Name of the ar	nimal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry		All susceptible ago		Give Coximar @ 2g/lit of drinking water for 5-7 days.
Touting		groups (as and wh required)	Ranikhet disease	<ol> <li>F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds.</li> <li>R<sub>2</sub>B vaccine of 8-9 weeks of age group birds (layers).</li> <li>Killed ND virus vaccine of 16-18 weeks of age group birds (layers).</li> </ol>
			Management	<ul> <li>Mix deactivated lime powder @ 2 kg per 100 sq. ft. area in litter material to prevent from caking.</li> <li>Increase energy feed upto 5% (like maize, rice bran, etc.).</li> <li>Add antibiotic, Hostacycline/ Duaprin @ 2 g/ lit of drinking water for 7 days along with vitamin A, vitamin B &amp; vitamin C.</li> </ul>
Sheep/ Goa	t	Above 3 months of age (as and when required)	f Contagious Caprine Pluero-pneumonia (CCPP) in goat	- Vaccinate against Contagious Caprine Pluero-pneumonia intradermally.
			Ectoparasite	Use Butox liq. @ 2ml/ 4 litres of water and wash the animal with the solution.
Pig		Above 3 months of	f Swine Fever	- Vaccinate against swine fever after the age of 3 months.
		age (as and when	Skin infection	Give Ivermectin (Indectin tab.) @ 10mg/33kg body weight.
		required)	Deworming	- Deworm using Piperazine citrate @ 30 ml per adult animal once.
			Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
Cattle / Buffa	ılo/	Above 3 months of	f Deworming	Deworm using TolzanF @ 100ml/300kg body weight.
Mithun		age (as and when	F.M.D.	- Vaccinate against F.M.D.
		required)	Ticks/ Wounds	Topicure spray may be used twice daily on the affected parts.
Fishery:			J_	.1
Type of Farming	Stage & Management		Agro-metrological advisories	
Carp/ Catfish culture	Stock maintenance		<ul> <li>Ponds should be free fromaintained at 1.0 - 1.5 m.</li> <li>Feeds should be provide</li> <li>Well balanced feed forti</li> </ul>	on and for this practices mentioned below may be done in small scale.  om unwanted vegetation and insects and water depth should be  ed 1-2 times a day @ 2-3% body weight per day.  fied with vitamins and minerals should be provided.  re/ ha or lime @ 200kg/ ha. Maintain good quality of pond water.



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#### "Integrated Agromet Advisory Services"

# MANIPUR BULLETIN 20<sup>th</sup> January, 2015

#### Senapati

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 21<sup>st</sup> to 25<sup>th</sup> January, 2014 as below:

# Significant past weather for the preceding bi-weekly of Imphal - West $(16^{th}\ to\ 19^{th}\ January,\ 2015)$

During past four days sky was mainly clear to partly cloudy but mainly cloudy to cloudy from afternoon hours of  $17^{th}$  to morning of  $18^{th}$  Jan. **19.6 mm** rainfall was recorded during past four days. Maximum temperature range observed was 19.5-24.4 °C, range of minimum temperature observed was 5.5-11.1 °C, mean relative humidity observed in morning and afternoon were 89.3 % and 51.0 % respectively. The average wind speed range was 0.8-1.7 km/hr.

## Weather forecast for next five days of Senapati (21st to 25th January, 2014)

There may be no rain upto Sunday. Sky will be mainly clear to partly cloudy with maximum temp. of  $20.0-24.0\,^{\circ}$ C & minimum temp.  $2.0-4.0\,^{\circ}$ C. Relative humidity may reach upto 97 % (maximum RH) & 35 % (minimum RH). The average wind speed may be 2-4 km/ hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops	-	-	
Rapeseed/	Flowering to siliqua		Top-dress with 32.5 kg Urea/ ha at 60 days after sowing.
mustard	formation		- During flowering four bee boxes may be kept in one hectare crop area. Avoid spray of insecticides in such area.
		Aphid	- Use yellow plates for every 3 sq.m to attract the aphids or spray Pyrethrum @ 2ml/ litre of water on the infected patches.
		Downy Mildew	Spray Triademefon (Bayleton) 50 WP @ 10g/15litres of water (2-3 sprays) at 15 days interval as soon as the symptoms start appearing on the plants.
		Hairy caterpillar	- Spray Quinalphos or Chloropyriphos @ 2ml/litre of water on the infected patches only.
Pulses (Field pea/	Vegetative to flowering	Aphid	- Spray Cypermethrin @2ml/lit of water against aphid on the infected patches only.
Lentil)		Powdery Mildew	- Spray Bayleton (Triademefon 25%WP) @ 7.5 g/ pump or Dinocap (Karathane 46% EC) @ 7.5ml/ pump.
Storage			- Dry, clean and store the seeds in RC-seed bins after proper drying of seeds and charcoal. Check for moisture content or weight of seeds. After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops	1	-	<u> </u>
Onion	Vegetative		30 to 45 days old transplanted onion should be top dressed with 20-25 kg urea/ ha depending upon the fertility.
Vegetable crops	Land preparation	Pre-mature wilting	To avoid pre-mature wilting, soil must be well exposed to sun after ploughing. As prophylactic measure, a dormant spray of Bordeaux mixture (1:1:100) using 100 litres of water / sangam at least once in this week and another after 20-25 days.  - Treat seed with Carbendazim @ 2-3g/ kg seed.
French bean	Land preparation and sowing		- Sowing of French bean may be done in prepared land. Seed rate for dwarf varieties like Pant Anupam & Arka Komal is 65kg/ha (spacing is 30x45 cm from seed to seed and row to row) and 25-30kg/ha for pole-type (spacing is 60x60cm with 2-3 seeds per hill).  - Give light irrigation after 2-3 days of sowing.
Animal Sciences		<i>.</i>	, , , , ,
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age	Coccidiosis	Give Coximar @ 2g/lit of drinking water for 5-7 days.
	groups (as and when required)	Ranikhet disease	1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds.



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				2. R <sub>2</sub> B vaccine of 8-9 weeks of age group birds (layers).
				3. Killed ND virus vaccine of 16-18 weeks of age group birds
				(layers).
			Management	- Mix deactivated lime powder @ 2 kg per 100 sq. ft. area in litter
				material to prevent from caking.
				- Increase energy feed upto 5% (like maize, rice bran, etc.).
				- Add antibiotic, Hostacycline/ Duaprin @ 2 g/ lit of drinking water
				for 7 days along with vitamin A, vitamin B & vitamin C.
Sheep/ Goat	t	Above 3 months of	Comagnous caprine	
		age (as and when required)	Pluero-pneumonia	dermally.
		required)	(CCPP) in goat	
			Ectoparasite	Use Butox liq. @ 2ml/4 litres of water and wash the animal with the
			2 2 2	solution.
Pig		Above 3 months of		- Vaccinate against swine fever after the age of 3 months.
		age (as and when required)	Skin infection	Give Ivermectin (Indectin tab.) @ 10mg/33kg body weight.
		required)	Deworming	- Deworm using Piperazine citrate @ 30 ml per adult animal once.
			Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a
				week while brushing the animal.
Cattle / Buffa	ılo/	Above 3 months of	of Deworming	Deworm using TolzanF @ 100ml/300kg body weight.
Mithun		age (as and when required)	F.M.D.	- Vaccinate against F.M.D.
		required)	Ticks/ Wounds	Topicure spray may be used twice daily on the affected parts.
Fishery:				
Type of Farming	Stage & Management		Agro-metrological advisories	
Carp/	Stock r	naintenance	- Stock fish for next seas	on and for this practices mentioned below may be done in small scale.
Catfish			- Ponds should be free fre	om unwanted vegetation and insects and water depth should be
culture			maintained at 1.0 - 1.5 m	

- Feeds should be provided 1-2 times a day @ 2-3% body weight per day.- Well balanced feed fortified with vitamins and minerals should be provided.

- Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water.



## ICAR Research Complex for N.E.H. Region Manipur Centre, Lamphelpat, Imphal - 795 004



#### "Integrated Agromet Advisory Services"

#### MANIPUR BULLETIN 20<sup>th</sup> January, 2015

#### **Tamenglong**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 21<sup>st</sup> to 25<sup>th</sup> January, 2014 as below:

# Significant past weather for the preceding bi-weekly of Imphal - West $(16^{th}\ to\ 19^{th}\ January,\ 2015)$

During past four days sky was mainly clear to partly cloudy but mainly cloudy to cloudy from afternoon hours of  $17^{th}$  to morning of  $18^{th}$  Jan. **19.6 mm** rainfall was recorded during past four days. Maximum temperature range observed was 19.5-24.4 °C, range of minimum temperature observed was 5.5-11.1 °C, mean relative humidity observed in morning and afternoon were 89.3 % and 51.0 % respectively. The average wind speed range was 0.8-1.7 km/hr.

## Weather forecast for next five days of Tamenglong (21st to 25th January, 2014)

There may be no rain upto Sunday. Sky will be mainly clear to partly cloudy with maximum temp. of  $24.0-25.0\,^{\circ}\text{C}$  & minimum temp.  $3.0-5.0\,^{\circ}\text{C}$ . Relative humidity may reach upto 99 % (maximum RH) & 37 % (minimum RH). The average wind speed may be 3-4 km/ hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops		-	
Rapeseed/	Flowering to siliqua		Top-dress with 32.5 kg Urea/ ha at 60 days after sowing.
mustard	formation		- During flowering four bee boxes may be kept in one hectare crop area. Avoid spray of insecticides in such area.
		Aphid	- Use yellow plates for every 3 sq.m to attract the aphids or spray Pyrethrum @ 2ml/ litre of water on the infected patches.
		Downy Mildew	Spray Triademefon (Bayleton) 50 WP @ 10g/15litres of water (2-3 sprays) at 15 days interval as soon as the symptoms start appearing on the plants.
		Hairy caterpillar	- Spray Quinalphos or Chloropyriphos @ 2ml/litre of water on the infected patches only.
Pulses (Field pea/	Vegetative to flowering	Aphid	- Spray Cypermethrin @2ml/lit of water against aphid on the infected patches only.
Lentil)		Powdery Mildew	- Spray Bayleton (Triademefon 25%WP) @ 7.5 g/ pump or Dinocap (Karathane 46% EC) @ 7.5ml/ pump.
Potato	Vegetative		Earthing up may be done when the plant is 15cm high (or 35-40 days old).
		Cut worm	If cut-worm is observed then prepare poison bait of Trichlorfon (mixture of 1kg husk + 40g sugar + 5g Trichlorfon + water) and apply manually by putting near the stem of plant above the soil surface.
Rice	Sowing of winter rice		Sowing of winter rice may be started near lakes.
Storage			- Dry, clean and store the seeds in RC-seed bins after proper drying of seeds and charcoal. Check for moisture content or weight of seeds. After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops		J.	
Cucurbits	Sowing		- Continue raising of cucurbits like bitter gourd, bottle gourd, cucumber, sponge gourd, etc. in poly pouch under low cost polyhouse.
	Transplanting		- Transplant already raised 4-leaf stage seedlings raised under low cost polyhouse.
Onion	Vegetative		<ul> <li>Light watering in the morning hours may be done</li> <li>30 to 45 days old transplanted onion should be top dressed with 20-25 kg urea/ ha depending upon the fertility.</li> </ul>



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## "Integrated Agromet Advisory Services"

Vegetable c	rops	Land preparation	n	Pre-mature wilting	To avoid pre-mature wilting, soil must be well exposed to sun after
					ploughing. As prophylactic measure, a dormant spray of Bordeaux mixture (1:1:100) using 100 litres of water / sangam at least once in
					this week and another after 20-25 days.
					- Treat seed with Carbendazim @ 2-3g/ kg seed.
French bear	n	Land preparation	า		- Sowing of French bean may be done in prepared land. Seed rate for
Trenen bear		and sowing			dwarf varieties like Pant Anupam & Arka Komal is 65kg/ha (spacing
		8			is 30x45 cm from seed to seed and row to row) and 25-30kg/ha for
					pole-type (spacing is 60x60cm with 2-3 seeds per hill).
					- Give light irrigation after 2-3 days of sowing.
Animal Sci		Ια .			
Name of the an	imal	Growth stage		Disease/ infestation	Agro-meteorological advisories
Poultry		All susceptible age		Coccidiosis	Give Coximar @ 2g/lit of drinking water for 5-7 days.
		groups (as and who required)	en	Ranikhet disease	1. F-1 Strain may be first administered within 7 days of age and
		required)			second dose may be given at 30days for all birds.
					2. R <sub>2</sub> B vaccine of 8-9 weeks of age group birds (layers).
					3. Killed ND virus vaccine of 16-18 weeks of age group birds
			ļ	Managamant	<ul><li>(layers).</li><li>Mix deactivated lime powder @ 2 kg per 100 sq. ft. area in litter</li></ul>
				Management	material to prevent from caking.
					- Increase energy feed upto 5% (like maize, rice bran, etc.).
					- Add antibiotic, Hostacycline/ Duaprin @ 2 g/ lit of drinking water
					for 7 days along with vitamin A, vitamin B & vitamin C.
Sheep/ Goat		Above 3 months of age (as and when required)		Contagious Caprine	- Vaccinate against Contagious Caprine Pluero-pneumonia intra-
				Pluero-pneumonia	dermally.
				(CCPP) in goat	
				Ectoparasite	Use Butox liq. @ 2ml/ 4 litres of water and wash the animal with the solution.
Pig		Above 3 months o	f	Swine Fever	- Vaccinate against swine fever after the age of 3 months.
		age (as and when required)		Skin infection	Give Ivermectin (Indectin tab.) @ 10mg/33kg body weight.
		required)		Deworming	- Deworm using Piperazine citrate @ 30 ml per adult animal once.
				Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
Cattle / Buffalo/ Mithun		Above 3 months o	of	Deworming	Deworm using TolzanF @ 100ml/300kg body weight.
		age (as and when required)	•	F.M.D.	- Vaccinate against F.M.D.
		1		Ticks/ Wounds	Topicure spray may be used twice daily on the affected parts.
Fishery:					
Type of Stage &		Agro	-metrological advisories		
Farming Carp/	Management Stock maintenance		_ Sta	ock fish for next seese	and for this practices mentioned below may be done in small scale.
Cat p/ Catfish	SIUCKI	mamichance			n unwanted vegetation and insects and water depth should be
culture				ntained at 1.0 - 1.5 m.	in an indicate regulation and indeeds and water depart should be
					1 1-2 times a day @ 2-3% body weight per day.
			- Well balanced feed fortified with vitamins and minerals should be provided.		
		- Ap	ply Green AQ @ 4litr	e/ ha or lime @ 200kg/ ha. Maintain good quality of pond water.	



## ICAR Research Complex for N.E.H. Region Manipur Centre, Lamphelpat, Imphal - 795 004



#### "Integrated Agromet Advisory Services"

# MANIPUR BULLETIN 20<sup>th</sup> January, 2015

#### **Thoubal**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 21<sup>st</sup> to 25<sup>th</sup> January, 2014 as below:

# Significant past weather for the preceding bi-weekly of Imphal - West $(16^{th}\ to\ 19^{th}\ January,\ 2015)$

During past four days sky was mainly clear to partly cloudy but mainly cloudy to cloudy from afternoon hours of  $17^{th}$  to morning of  $18^{th}$  Jan. **19.6 mm** rainfall was recorded during past four days. Maximum temperature range observed was 19.5-24.4 °C, range of minimum temperature observed was 5.5-11.1 °C, mean relative humidity observed in morning and afternoon were 89.3 % and 51.0 % respectively. The average wind speed range was 0.8-1.7 km/hr.

## Weather forecast for next five days of Thoubal (21st to 25th January, 2014)

There may be no rain upto Sunday. Sky will be mainly clear to partly cloudy with maximum temp. of  $24.0-27.0\,^{\circ}$ C & minimum temp.  $2.0-4.0\,^{\circ}$ C. Relative humidity may reach upto 99 % (maximum RH) & 48 % (minimum RH). The average wind speed may be 2-4 km/ hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops		J.	
Rapeseed/	Flowering to siliqua		Top-dress with 32.5 kg Urea/ ha at 60 days after sowing.
mustard	formation		- During flowering four bee boxes may be kept in one hectare crop area. Avoid spray of insecticides in such area.
		Aphid	- Use yellow plates for every 3 sq.m to attract the aphids or spray Pyrethrum @ 2ml/ litre of water on the infected patches.
		Downy Mildew	Spray Triademefon (Bayleton) 50 WP @ 10g/15litres of water (2-3 sprays) at 15 days interval as soon as the symptoms start appearing on the plants.
		Hairy caterpillar	- Spray Quinalphos or Chloropyriphos @ 2ml/litre of water on the infected patches only.
Pulses (Field pea/	Vegetative to flowering	Aphid	- Spray Cypermethrin @2ml/lit of water against aphid on the infected patches only.
Lentil)		Powdery Mildew	- Spray Bayleton (Triademefon 25%WP) @ 7.5 g/ pump or Dinocap (Karathane 46% EC) @ 7.5ml/ pump.
Potato	Vegetative		Earthing up may be done when the plant is 15cm high (or 35-40 days old).
		Cut worm	If cut-worm is observed then prepare poison bait of Trichlorfon (mixture of 1kg husk + 40g sugar + 5g Trichlorfon + water) and apply manually by putting near the stem of plant above the soil surface.
Rice	Sowing of winter rice		Sowing of winter rice may be started near lakes.
Storage			- Dry, clean and store the seeds in RC-seed bins after proper drying of seeds and charcoal. Check for moisture content or weight of seeds. After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops		J.	
Cucurbits	Sowing		- Continue raising of cucurbits like bitter gourd, bottle gourd, cucumber, sponge gourd, etc. in poly pouch under low cost polyhouse.
	Transplanting		- Transplant already raised 4-leaf stage seedlings raised under low cost polyhouse.
Onion	Vegetative		<ul> <li>Light watering in the morning hours may be done</li> <li>30 to 45 days old transplanted onion should be top dressed with 20-25 kg urea/ ha depending upon the fertility.</li> </ul>



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## "Integrated Agromet Advisory Services"

Land preparation	Pre-mature wilting	To avoid pre-mature wilting, soil must be well exposed to sun after
	The financial winding	ploughing. As prophylactic measure, a dormant spray of Bordeaux mixture (1:1:100) using 100 litres of water / sangam at least once in this week and another after 20-25 days.  - Treat seed with Carbendazim @ 2-3g/ kg seed.
Land preparation and sowing		- Sowing of French bean may be done in prepared land. Seed rate for dwarf varieties like Pant Anupam & Arka Komal is 65kg/ha (spacing is 30x45 cm from seed to seed and row to row) and 25-30kg/ha for pole-type (spacing is 60x60cm with 2-3 seeds per hill).  - Give light irrigation after 2-3 days of sowing.
S		
Growth stage	Disease/ infestation	Agro-meteorological advisories
		Give Coximar @ 2g/lit of drinking water for 5-7 days.
groups (as and wherequired)	Ranikhet disease	<ol> <li>F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds.</li> <li>R<sub>2</sub>B vaccine of 8-9 weeks of age group birds (layers).</li> <li>Killed ND virus vaccine of 16-18 weeks of age group birds (layers).</li> </ol>
	Management	<ul> <li>Mix deactivated lime powder @ 2 kg per 100 sq. ft. area in litter material to prevent from caking.</li> <li>Increase energy feed upto 5% (like maize, rice bran, etc.).</li> <li>Add antibiotic, Hostacycline/ Duaprin @ 2 g/ lit of drinking water for 7 days along with vitamin A, vitamin B &amp; vitamin C.</li> </ul>
Above 3 months o age (as and when required)	f Contagious Caprine Pluero-pneumonia (CCPP) in goat	- Vaccinate against Contagious Caprine Pluero-pneumonia intradermally.
	Ectoparasite	Use Butox liq. @ 2ml/ 4 litres of water and wash the animal with the solution.
	f Swine Fever	- Vaccinate against swine fever after the age of 3 months.
	Skin infection	Give Ivermectin (Indectin tab.) @ 10mg/33kg body weight.
required)	Deworming	- Deworm using Piperazine citrate @ 30 ml per adult animal once.
	Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
	f Deworming	Deworm using TolzanF @ 100ml/300kg body weight.
	F.M.D.	- Vaccinate against F.M.D.
required)	Ticks/ Wounds	Topicure spray may be used twice daily on the affected parts.
	J_	1
ge & nagement	Agro-metrological advisories	
ck maintenance	<ul> <li>Ponds should be free fro maintained at 1.0 - 1.5 m.</li> <li>Feeds should be provide</li> <li>Well balanced feed forti</li> </ul>	m and for this practices mentioned below may be done in small scale. m unwanted vegetation and insects and water depth should be d 1-2 times a day @ 2-3% body weight per day. fied with vitamins and minerals should be provided. re/ ha or lime @ 200kg/ ha. Maintain good quality of pond water.
	Above 3 months or age (as and when required)  Above 3 months or age (as and when required)  Above 3 months or age (as and when required)	Growth stage  All susceptible age groups (as and when required)  Above 3 months of age (as and when required)



## ICAR Research Complex for N.E.H. Region Manipur Centre, Lamphelpat, Imphal - 795 004



#### "Integrated Agromet Advisory Services"

#### MANIPUR BULLETIN 20<sup>th</sup> January, 2015

#### **Ukhrul**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 21<sup>st</sup> to 25<sup>th</sup> January, 2014 as below:

# Significant past weather for the preceding bi-weekly of Imphal - West $(16^{th}\ to\ 19^{th}\ January,\ 2015)$

During past four days sky was mainly clear to partly cloudy but mainly cloudy to cloudy from afternoon hours of  $17^{th}$  to morning of  $18^{th}$  Jan. **19.6 mm** rainfall was recorded during past four days. Maximum temperature range observed was 19.5-24.4 °C, range of minimum temperature observed was 5.5-11.1 °C, mean relative humidity observed in morning and afternoon were 89.3 % and 51.0 % respectively. The average wind speed range was 0.8-1.7 km/hr.

## Weather forecast for next five days of Ukhrul (21st to 25th January, 2014)

There may be no rain upto Sunday. Sky will be mainly clear to partly cloudy with maximum temp. of  $20.0-23.0\,^{\circ}$ C & minimum temp.  $2.0-4.0\,^{\circ}$ C. Relative humidity may reach upto 97 % (maximum RH) & 43 % (minimum RH). The average wind speed may be 2-4 km/ hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops	•		
Rapeseed/	Flowering to siliqua		Top-dress with 32.5 kg Urea/ ha at 60 days after sowing.
mustard	formation		- During flowering four bee boxes may be kept in one hectare crop area. Avoid spray of insecticides in such area.
		Aphid	- Use yellow plates for every 3 sq.m to attract the aphids or spray Pyrethrum @ 2ml/ litre of water on the infected patches.
		Downy Mildew	Spray Triademefon (Bayleton) 50 WP @ 10g/15litres of water (2-3 sprays) at 15 days interval as soon as the symptoms start appearing on the plants.
		Hairy caterpillar	- Spray Quinalphos or Chloropyriphos @ 2ml/litre of water on the infected patches only.
Pulses (Field pea/	Vegetative to flowering	Aphid	- Spray Cypermethrin @2ml/lit of water against aphid on the infected patches only.
Lentil)		Powdery Mildew	- Spray Bayleton (Triademefon 25%WP) @ 7.5 g/ pump or Dinocap (Karathane 46% EC) @ 7.5ml/ pump.
Storage			- Dry, clean and store the seeds in RC-seed bins after proper drying of seeds and charcoal. Check for moisture content or weight of seeds. After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops		-	<u> </u>
Onion	Vegetative		30 to 45 days old transplanted onion should be top dressed with 20-25 kg urea/ ha depending upon the fertility.
Vegetable crops	Land preparation	Pre-mature wilting	To avoid pre-mature wilting, soil must be well exposed to sun after ploughing. As prophylactic measure, a dormant spray of Bordeaux mixture (1:1:100) using 100 litres of water / sangam at least once in this week and another after 20-25 days.  - Treat seed with Carbendazim @ 2-3g/ kg seed.
French bean	Land preparation and sowing		- Sowing of French bean may be done in prepared land. Seed rate for dwarf varieties like Pant Anupam & Arka Komal is 65kg/ha (spacing is 30x45 cm from seed to seed and row to row) and 25-30kg/ha for pole-type (spacing is 60x60cm with 2-3 seeds per hill).  - Give light irrigation after 2-3 days of sowing.
Animal Sciences	•	<del>,</del>	
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Coccidiosis	Give Coximar @ 2g/lit of drinking water for 5-7 days.
•		Ranikhet disease	1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds.



#### ICAR Research Complex for N.E.H. Region Manipur Centre, Lamphelpat, Imphal - 795 004



#### "Integrated Agromet Advisory Services"

				2. R <sub>2</sub> B vaccine of 8-9 weeks of age group birds (layers).	
				3. Killed ND virus vaccine of 16-18 weeks of age group birds	
				(layers).	
			Management	- Mix deactivated lime powder @ 2 kg per 100 sq. ft. area in litter	
			_	material to prevent from caking.	
				- Increase energy feed upto 5% (like maize, rice bran, etc.).	
				- Add antibiotic, Hostacycline/ Duaprin @ 2 g/ lit of drinking water	
				for 7 days along with vitamin A, vitamin B & vitamin C.	
Sheep/ Goat		Above 3 months of	of Contagious Caprine	- Vaccinate against Contagious Caprine Pluero-pneumonia intra-	
		age (as and when	Pluero-pneumonia	dermally.	
		required)	(CCPP) in goat		
			Ectoparasite	Use Butox liq. @ 2ml/4 litres of water and wash the animal with the	
				solution.	
Pig		Above 3 months of	of Swine Fever	- Vaccinate against swine fever after the age of 3 months.	
		age (as and when required)	Skin infection	Give Ivermectin (Indectin tab.) @ 10mg/33kg body weight.	
		required)	Deworming	- Deworm using Piperazine citrate @ 30 ml per adult animal once.	
			Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a	
				week while brushing the animal.	
Cattle / Buffalo/		Above 3 months of	of Deworming	Deworm using TolzanF @ 100ml/300kg body weight.	
Mithun		age (as and when required)	F.M.D.	- Vaccinate against F.M.D.	
		required)	Ticks/ Wounds	Topicure spray may be used twice daily on the affected parts.	
Fishery:					
Type of	Stage & Management Stock maintenance		Agro-metrological advisories		
Farming					
Carp/			<ul> <li>Stock fish for next season and for this practices mentioned below may be done in small scale.</li> <li>Ponds should be free from unwanted vegetation and insects and water depth should be</li> </ul>		
Catfish					
culture			maintained at 1.0 - 1.5 m.		
			- Feeds should be provided 1-2 times a day @ 2-3% body weight per day.		

- Well balanced feed fortified with vitamins and minerals should be provided.

- Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water.



#### ICAR Research Complex for N.E.H. Region Manipur Centre, Lamphelpat, Imphal - 795 004



#### "Integrated Agromet Advisory Services"

#### MANIPUR BULLETIN 20<sup>th</sup> January, 2015

#### Bishnupur

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 21<sup>st</sup> to 25<sup>th</sup> January, 2014 as below:

# Significant past weather for the preceding bi-weekly of Imphal - West $(16^{th}\ to\ 19^{th}\ January,\ 2015)$

During past four days sky was mainly clear to partly cloudy but mainly cloudy to cloudy from afternoon hours of  $17^{th}$  to morning of  $18^{th}$  Jan. **19.6 mm** rainfall was recorded during past four days. Maximum temperature range observed was 19.5-24.4 °C, range of minimum temperature observed was 5.5-11.1 °C, mean relative humidity observed in morning and afternoon were 89.3 % and 51.0 % respectively. The average wind speed range was 0.8-1.7 km/hr.

## Weather forecast for next five days of Bishnupur (21st to 25th January, 2014)

There may be no rain upto Sunday. Sky will be mainly clear to partly cloudy with maximum temp. of 24.0-26.0 °C & minimum temp. 4.0-5.0 °C. Relative humidity may reach upto 98 % (maximum RH) & 44 % (minimum RH). The average wind speed may be 2-4 km/ hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rapeseed/	Flowering to siliqua		Top-dress with 32.5 kg Urea/ ha at 60 days after sowing.
mustard	formation		- During flowering four bee boxes may be kept in one hectare crop area. Avoid spray of insecticides in such area.
		Aphid	- Use yellow plates for every 3 sq.m to attract the aphids or spray Pyrethrum @ 2ml/ litre of water on the infected patches.
		Downy Mildew	Spray Triademefon (Bayleton) 50 WP @ 10g/15litres of water (2-3 sprays) at 15 days interval as soon as the symptoms start appearing on the plants.
		Hairy caterpillar	- Spray Quinalphos or Chloropyriphos @ 2ml/litre of water on the infected patches only.
Pulses (Field pea/	Vegetative to flowering	Aphid	- Spray Cypermethrin @2ml/lit of water against aphid on the infected patches only.
Lentil)		Powdery Mildew	- Spray Bayleton (Triademefon 25%WP) @ 7.5 g/ pump or Dinocap (Karathane 46% EC) @ 7.5ml/ pump.
Potato	Vegetative		Earthing up may be done when the plant is 15cm high (or 35-40 days old).
		Cut worm	If cut-worm is observed then prepare poison bait of Trichlorfon (mixture of 1kg husk + 40g sugar + 5g Trichlorfon + water) and apply manually by putting near the stem of plant above the soil surface.
Rice	Sowing of winter rice		Sowing of winter rice may be started near lakes.
Storage			- Dry, clean and store the seeds in RC-seed bins after proper drying of seeds and charcoal. Check for moisture content or weight of seeds. After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops			
Cucurbits	Sowing		- Continue raising of cucurbits like bitter gourd, bottle gourd, cucumber, sponge gourd, etc. in poly pouch under low cost polyhouse.
	Transplanting		<ul> <li>Transplant already raised 4-leaf stage seedlings raised under low cost polyhouse.</li> <li>Light watering in the morning hours may be done</li> </ul>
Onion	Vegetative		30 to 45 days old transplanted onion should be top dressed with 20-25 kg urea/ ha depending upon the fertility.



## ICAR Research Complex for N.E.H. Region Manipur Centre, Lamphelpat, Imphal - 795 004



## "Integrated Agromet Advisory Services"

Vegetable c	rops	Land preparation	Pre-mature wilt	To avoid pre-mature wilting, soil must be well exposed to sun after ploughing. As prophylactic measure, a dormant spray of Bordeaux mixture (1:1:100) using 100 litres of water / sangam at least once in this week and another after 20-25 days.  - Treat seed with Carbendazim @ 2-3g/ kg seed.	
French bean Land preparation and sowing		1	- Sowing of French bean may be done in prepared land. Seed rate for dwarf varieties like Pant Anupam & Arka Komal is 65kg/ha (spacing is 30x45 cm from seed to seed and row to row) and 25-30kg/ha for pole-type (spacing is 60x60cm with 2-3 seeds per hill).  - Give light irrigation after 2-3 days of sowing.		
Animal Sci					
Name of the an	imal	Growth stage	Disease/ infestat	ion Agro-meteorological advisories	
Poultry		All susceptible age		Give Coximar @ 2g/lit of drinking water for 5-7 days.	
		groups (as and wherequired)	Ranikhet diseas	1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds.  2. R <sub>2</sub> B vaccine of 8-9 weeks of age group birds (layers).  3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).	
			Management	<ul> <li>Mix deactivated lime powder @ 2 kg per 100 sq. ft. area in litter material to prevent from caking.</li> <li>Increase energy feed upto 5% (like maize, rice bran, etc.).</li> <li>Add antibiotic, Hostacycline/ Duaprin @ 2 g/ lit of drinking water for 7 days along with vitamin A, vitamin B &amp; vitamin C.</li> </ul>	
Sheep/ Goat		Above 3 months o age (as and when required)	f Contagious Cap Pluero-pneumo (CCPP) in goat	nia dermally.	
			Ectoparasite	Use Butox liq. @ 2ml/4 litres of water and wash the animal with the solution.	
Pig		Above 3 months o	f Swine Fever	- Vaccinate against swine fever after the age of 3 months.	
		age (as and when required)	Skin infection	Give Ivermectin (Indectin tab.) @ 10mg/33kg body weight.	
			Deworming	- Deworm using Piperazine citrate @ 30 ml per adult animal once.	
			Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.	
Cattle / Buffalo/ Mithun	lo/	Above 3 months o	f Deworming	Deworm using TolzanF @ 100ml/300kg body weight.	
		age (as and when required)	F.M.D.	- Vaccinate against F.M.D.	
		required)	Ticks/ Wounds	Topicure spray may be used twice daily on the affected parts.	
Fishery:		1	J	1	
Type of Farming	Stage & Management		Agro-metrological advis	ories	
Carp/ Catfish culture	Stock maintenance		<ul> <li>Stock fish for next season and for this practices mentioned below may be done in small scale.</li> <li>Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0 - 1.5 m.</li> <li>Feeds should be provided 1-2 times a day @ 2-3% body weight per day.</li> <li>Well balanced feed fortified with vitamins and minerals should be provided.</li> <li>Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water.</li> </ul>		



## ICAR Research Complex for N.E.H. Region Manipur Centre, Lamphelpat, Imphal - 795 004



#### "Integrated Agromet Advisory Services"

#### MANIPUR BULLETIN 20<sup>th</sup> January, 2015

#### Chandel

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 21<sup>st</sup> to 25<sup>th</sup> January, 2014 as below:

# Significant past weather for the preceding bi-weekly of Imphal - West $(16^{th}\ to\ 19^{th}\ January,\ 2015)$

During past four days sky was mainly clear to partly cloudy but mainly cloudy to cloudy from afternoon hours of  $17^{th}$  to morning of  $18^{th}$  Jan. **19.6 mm** rainfall was recorded during past four days. Maximum temperature range observed was 19.5-24.4 °C, range of minimum temperature observed was 5.5-11.1 °C, mean relative humidity observed in morning and afternoon were 89.3 % and 51.0 % respectively. The average wind speed range was 0.8-1.7 km/hr.

## Weather forecast for next five days of Chandel (21st to 25th January, 2014)

There may be no rain upto Sunday. Sky will be mainly clear to partly cloudy with maximum temp. of  $23.0-24.0\,^{\circ}$ C & minimum temp.  $2.0-4.0\,^{\circ}$ C. Relative humidity may reach upto 97 % (maximum RH) & 51 % (minimum RH). The average wind speed may be 2-4 km/ hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops		-	
Rapeseed/	Flowering to siliqua		Top-dress with 32.5 kg Urea/ ha at 60 days after sowing.
mustard	formation		- During flowering four bee boxes may be kept in one hectare crop area. Avoid spray of insecticides in such area.
		Aphid	- Use yellow plates for every 3 sq.m to attract the aphids or spray Pyrethrum @ 2ml/ litre of water on the infected patches.
		Downy Mildew	Spray Triademefon (Bayleton) 50 WP @ 10g/15litres of water (2-3 sprays) at 15 days interval as soon as the symptoms start appearing on the plants.
		Hairy caterpillar	- Spray Quinalphos or Chloropyriphos @ 2ml/litre of water on the infected patches only.
Pulses (Field pea/	Vegetative to flowering	Aphid	- Spray Cypermethrin @2ml/lit of water against aphid on the infected patches only.
Lentil)		Powdery Mildew	- Spray Bayleton (Triademefon 25%WP) @ 7.5 g/ pump or Dinocap (Karathane 46% EC) @ 7.5ml/ pump.
Potato	Vegetative		Earthing up may be done when the plant is 15cm high (or 35- 40 days old).
		Cut worm	If cut-worm is observed then prepare poison bait of Trichlorfon (mixture of 1kg husk + 40g sugar + 5g Trichlorfon + water) and apply manually by putting near the stem of plant above the soil surface.
Rice	Sowing of winter rice		Sowing of winter rice may be started near lakes.
Storage			- Dry, clean and store the seeds in RC-seed bins after proper drying of seeds and charcoal. Check for moisture content or weight of seeds. After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops			
Cucurbits	Sowing		- Continue raising of cucurbits like bitter gourd, bottle gourd, cucumber, sponge gourd, etc. in poly pouch under low cost polyhouse.
	Transplanting		- Transplant already raised 4-leaf stage seedlings raised under low cost polyhouse.
Onion	Vegetative		<ul> <li>Light watering in the morning hours may be done</li> <li>30 to 45 days old transplanted onion should be top dressed with 20-25 kg urea/ ha depending upon the fertility.</li> </ul>



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Land preparation	Pre-mature wilting	To avoid pre-mature wilting, soil must be well exposed to sun after	
	The financial winding	ploughing. As prophylactic measure, a dormant spray of Bordeaux mixture (1:1:100) using 100 litres of water / sangam at least once in this week and another after 20-25 days.  - Treat seed with Carbendazim @ 2-3g/ kg seed.	
Land preparation and sowing		- Sowing of French bean may be done in prepared land. Seed rate for dwarf varieties like Pant Anupam & Arka Komal is 65kg/ha (spacing is 30x45 cm from seed to seed and row to row) and 25-30kg/ha for pole-type (spacing is 60x60cm with 2-3 seeds per hill).  - Give light irrigation after 2-3 days of sowing.	
S			
Growth stage	Disease/ infestation	Agro-meteorological advisories	
		Give Coximar @ 2g/lit of drinking water for 5-7 days.	
groups (as and who	Ranikhet disease	<ol> <li>F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds.</li> <li>R<sub>2</sub>B vaccine of 8-9 weeks of age group birds (layers).</li> <li>Killed ND virus vaccine of 16-18 weeks of age group birds (layers).</li> </ol>	
	Management	<ul> <li>Mix deactivated lime powder @ 2 kg per 100 sq. ft. area in litter material to prevent from caking.</li> <li>Increase energy feed upto 5% (like maize, rice bran, etc.).</li> <li>Add antibiotic, Hostacycline/ Duaprin @ 2 g/ lit of drinking water for 7 days along with vitamin A, vitamin B &amp; vitamin C.</li> </ul>	
Above 3 months o age (as and when required)	f Contagious Caprine Pluero-pneumonia (CCPP) in goat	- Vaccinate against Contagious Caprine Pluero-pneumonia intradermally.	
	Ectoparasite	Use Butox liq. @ 2ml/ 4 litres of water and wash the animal with the solution.	
	f Swine Fever	- Vaccinate against swine fever after the age of 3 months.	
age (as and when required)	Skin infection	Give Ivermectin (Indectin tab.) @ 10mg/33kg body weight.	
	Deworming	- Deworm using Piperazine citrate @ 30 ml per adult animal once.	
	Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.	
	f Deworming	Deworm using TolzanF @ 100ml/300kg body weight.	
age (as and when	F.M.D.	- Vaccinate against F.M.D.	
required)	Ticks/ Wounds	Topicure spray may be used twice daily on the affected parts.	
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ge & nagement	Agro-metrological advisories		
ck maintenance	<ul> <li>Stock fish for next season and for this practices mentioned below may be done in small scale.</li> <li>Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0 - 1.5 m.</li> <li>Feeds should be provided 1-2 times a day @ 2-3% body weight per day.</li> <li>Well balanced feed fortified with vitamins and minerals should be provided.</li> <li>Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water.</li> </ul>		
	Above 3 months or age (as and when required)  Above 3 months or age (as and when required)  Above 3 months or age (as and when required)	Growth stage  All susceptible age groups (as and when required)  Above 3 months of age (as and when required)	