

Manipur Centre, Lamphelpat, Imphal - 795 004





MANIPUR BULLETIN 20th January, 2017

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 21st to 25th January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West $(17^{th}\ to\ 19^{th}\ January,\ 2017)$

Observed mainly clear sky but foggy at foothills during morning hours of 13^{th} and 14^{th} Jan, 2017 and no rainfall in past three days. Maximum temperature range of 22.8 to 23.3 $^{\circ}$ C and minimum temperature range of 3.5 to 4.1 $^{\circ}$ C with mean relative humidity 90.7 % max and 42.7 % min was recorded in the past four days. The average wind speed range remained 1.4 to 2.3 km/hr.

Weather forecast for next five days of Ukhrul (21st to 25th January, 2017)

Likely to have no rain upto Sunday. Shallow to moderate fog during morning hours of next three days and mainly clear sky during day time with maximum temp. 17 – 19 $^{\circ}$ C & minimum temp. 1 - 3 $^{\circ}$ C. Relative humidity may reach up to 94 % (max RH) & 29 % (min RH). The average wind speed may be 3-4 km/hr. Wind direction may be North Easterly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops		,L	J
Potato	Vegetative to flowering		 Irrigate if soil is dry. If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.
		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.
		Late Blight	- As a prophylactic measure against late blight, spray Metalaxyl based fungicide, like Redomil MZ-72 WP @ 2 gm/lit alternately with Mencozeb @ 2gm/lit of water at 14 days interval for 2-3 times.
Rapeseed/ Mustard	Vegetative to flowering		- Regular monitoring of moisture of soil may be done to ensure good growth. Irrigation may be given if the soil moisture have decline.
			- If flowering has started, then four bee boxes may be kept for 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.
		Hairy caterpillar	- Spray Quinalphos or Chloropyriphos @ 2ml/litre of water on the infected patches only.
Pulses	Vegetative to flowering and		- Give light irrigation to pea and lentil just to keep soil moist during vegetative stage.
	fruiting	Rust or Powdery mildew	- Spray Propiconazole @ 15ml/ 15 litre water.
		Aphid	- Spray Imidachloprid 17.8 SL @ 7-10ml/ 15 litre of water against aphid.
Rabi maize	Sowing to vegetative		- Sowing of rabi maize may be done Irrigate field, if the soil is dry.
Seeds storage	Post harvest management		 For seed purpose dry, clean and store the seeds in <i>RC-seed bins</i> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion
			1% in <i>godowns</i> .
Horticulture Crops		T	
Banana		Sigatoka Leaf Spot	- If Sigatoka Leaf Spot disease is observed then spray Calixin @ 1 ml/ lit of water.
			- 200g, 300g and 500g Urea, SSP and MOP respectively should be applied in three split doses at two, six and eight months after planting.
Citrus	After harvesting		Remove water sprouts (tender green shoots emerged from main stem), dried and dead branches after harvesting of fruits. Paste the cut ends with Bordeaux paste.
Cucurbits	Nursery raising		 - Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost poly-house or naturally ventilated polyhouse. - Land preparation for transplanting may be started.
French bean and Bhindi	Land Preparation		Land preparation for sowing may be started.
Rabi Vegetable	Vegetative to		- If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @
(cole crops)	head formation		2ml/ 10 lit of water.
Tomato	Vegetative		- Light watering may be done to maintain soil moisture.



Manipur Centre, Lamphelpat, Imphal - 795 004





Garden pea/ Bro bean		Vegetative to flowering		 Light watering may be done to maintain soil moisture. Earthing up and top dressing with 20kg urea per ha followed by watering may be advised to the farmers. 		
			powdery milder and yellow rust	- Spray Bayleton @ 7 g/ 10 litres of water against powdery mildew and yellow rust especially to the crops grown in moist/ shady area.		
Onion	Vegetati	ve		 Give light irrigation if the soil is dry. 30 to 45 days old transplanted onion should be top dressed with 20-25 kg urea/sangam depending upon the fertility. 		
Cauliflower	Vegetati head for		Plutella, Daimo	- Light watering may be done to maintain soil moisture.		
Coriander	Vegetati	ve		 - Light watering may be done to maintain soil moisture. - For late, treat seed with Trichoderma harzianum @ 4g/kg seed is recommended to protect against soil borne diseases. 		
Spinach (Palak) Vegetati	ve		- Light watering may be done to maintain soil moisture.		
Animal Science						
Name of the anin	nal			,		
Poultry (Chicken/ Turkey/ Duck)	All age grou	ps Care	& management	Protect from intense cold. Keep the shed wall covered with hessian cloth during night. Proper ventilation must be provided to protect from moisture inside the shed. Litter must be kept dry.		
	R		khet disease	 F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. R₂B vaccine of 8-9 weeks of age group birds (layers). 		
				3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).		
Sheep/ Goat	All age grou		orming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.		
	excepts the young ones		ination	Vaccinate against sheep/ goat pox and Enterotoxaemia.		
	All age grou	ps	orming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.		
Pig	except the young ones	Care	and management	 Mineral mixture be added in feed @10-20 g/adult animal. Treat drinking water with potassium permanganate/ sanitizer. Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds 		
		Mite	s infestation	> Spray with Skin Heal Spray in sufficient quantity.		
a	All age grou		orming	➤ Give Piperazine liquid @ 10-15ml orally once only.		
Cattle	excepts the young ones		H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc.		
			parasites	- Butox@ 2ml/lit of water at forth nightly interval.		
Fishery: Type of Farming						
Carp/ Catfish culture	Harvesting an stock	d		 Stocking of fish for next year may be done in ponds having 1.5m water depth @ 10,000/ ha. Feeds should be provided @ 3 % body weight per day. 		
	maintenance			 Well balanced feed fortified with vitamins and minerals should be provided. Apply Lime @ 30-35 kg/ha at 30days interval. 		



Manipur Centre, Lamphelpat, Imphal - 795 004





MANIPUR BULLETIN 20th January, 2017

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 21st to 25th January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West $(17^{th}\ to\ 19^{th}\ January,\ 2017)$

Observed mainly clear sky but foggy at foothills during morning hours of 13^{th} and 14^{th} Jan, 2017 and no rainfall in past three days. Maximum temperature range of 22.8 to 23.3 °C and minimum temperature range of 3.5 to 4.1 °C with mean relative humidity 90.7 % max and 42.7 % min was recorded in the past four days. The average wind speed range remained 1.4 to 2.3 km/hr.

Weather forecast for next five days of Imphal East $(21^{st}$ to 25^{th} January, 2017)

Likely to have no rain upto Sunday. Shallow to moderate fog during morning hours of next three days and mainly clear sky during day time with maximum temp. $22-23\,^{\circ}$ C & minimum temp. $2-4\,^{\circ}$ C. Relative humidity may reach up to 95 % (max RH) & 29 % (min RH). The average wind speed may be 4-5 km/hr. Wind direction may be North Easterly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Potato	Vegetative to flowering		 - Irrigate if soil is dry. - If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.
	_	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.
		Late Blight	- As a prophylactic measure against late blight, spray Metalaxyl based fungicide, like Redomil MZ-72 WP @ 2 gm/lit alternately with Mencozeb @ 2gm/lit of water at 14 days interval for 2-3 times.
Rapeseed/	Vegetative to		- Regular monitoring of moisture of soil may be done to ensure good growth.
Mustard	flowering		Irrigation may be given if the soil moisture have decline.
			- If flowering has started, then four bee boxes may be kept for 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.
		Hairy caterpillar	- Spray Quinalphos or Chloropyriphos @ 2ml/litre of water on the infected patches only.
Pulses	Vegetative to		- Give light irrigation to pea and lentil just to keep soil moist during vegetative
	flowering and		stage.
	fruiting	Rust or Powdery mildew	- Spray Propiconazole @ 15ml/ 15 litre water.
		Aphid	- Spray Imidachloprid 17.8 SL @ 7-10ml/ 15 litre of water against aphid.
Rabi maize	Sowing to vegetative		Sowing of rabi maize may be done.Irrigate field, if the soil is dry.
Seeds storage	Post harvest management		- For seed purpose dry, clean and store the seeds in <i>RC-seed bins</i> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of seeds.
			- After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in <i>godowns</i> .
Horticulture Crops			The Mayore with the second sec
Banana		Sigatoka Leaf Spot	- If Sigatoka Leaf Spot disease is observed then spray Calixin @ 1 ml/ lit of water.
			- 200g, 300g and 500g Urea, SSP and MOP respectively should be applied in three split doses at two, six and eight months after planting.
Citrus	After harvesting		Remove water sprouts (tender green shoots emerged from main stem), dried and dead branches after harvesting of fruits. Paste the cut ends with Bordeaux paste.
Cucurbits	Nursery raising		 Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost poly-house or naturally ventilated polyhouse. Land preparation for transplanting may be started.
French bean and Bhindi	Land Preparation		Land preparation for sowing may be started.
Rabi Vegetable	Vegetative to		- If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @
(cole crops)	head formation		2ml/10 lit of water.
Tomato	Vegetative		- Light watering may be done to maintain soil moisture.



Manipur Centre, Lamphelpat, Imphal - 795 004





Garden pea/ Broa bean	Vegetative flowering	Vegetative to flowering			 - Light watering may be done to maintain soil moisture. - Earthing up and top dressing with 20kg urea per ha followed by watering may be advised to the farmers. 		
			powdery mildev and yellow rust		- Spray Bayleton @ 7 g/ 10 litres of water against powdery mildew and yellow rust especially to the crops grown in moist/ shady area.		
Onion	Vegetative				 Give light irrigation if the soil is dry. 30 to 45 days old transplanted onion should be top dressed with 20-25 kg urea/sangam depending upon the fertility. 		
Cauliflower	Vegetative head forma		Plutella, Daimo Black Moth		- Light watering may be done to maintain soil moisture. Spray Dichlorovos 76 EC @ 1ml/ lit of water may be sprayed at 7 days interval depending upon the severity of the infestation.		
Coriander	Vegetative				 Light watering may be done to maintain soil moisture. For late, treat seed with Trichoderma harzianum @ 4g/kg seed is recommended to protect against soil borne diseases. 		
Spinach (Palak)	Vegetative				- Light watering may be done to maintain soil moisture.		
Animal Sciences							
Name of the anim	al			,			
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care	Care & management		Protect from intense cold. Keep the shed wall covered with hessian cloth during night. Proper ventilation must be provided to protect from moisture inside the shed. Litter must be kept dry.		
			Ranikhet disease		 F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. R₂B vaccine of 8-9 weeks of age group birds (layers). 		
			<u> </u>		lled ND virus vaccine of 16-18 weeks of age group birds (layers).		
Sheep/ Goat	All age groups	Deworming			Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.		
	excepts the young ones		accination		inate against sheep/ goat pox and Enterotoxaemia.		
	All age groups		De-worming		De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.		
Pig	except the young ones	Care	and management	Γ <	Mineral mixture be added in feed @10-20 g/adult animal. Freat drinking water with potassium permanganate/ sanitizer. Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds		
			infestation	> S	Spray with Skin Heal Spray in sufficient quantity.		
Cattle	All age groups	Dewo	orming		Give Piperazine liquid @ 10-15ml orally once only.		
	excepts the young ones		H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc.			
Fishery:			parasites	- But	ox@ 2ml/lit of water at forth nightly interval.		
Type of Farming Carp/ Catfish culture Harvesting and stock				10,00	cking of fish for next year may be done in ponds having 1.5m water depth @ 00/ ha. ds should be provided @ 3 % body weight per day.		
	maintenance				ll balanced feed fortified with vitamins and minerals should be provided. bly Lime @ 30-35 kg/ha at 30days interval.		



Manipur Centre, Lamphelpat, Imphal - 795 004





MANIPUR BULLETIN 20th January, 2017

Imphal West

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 21st to 25th January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West $(17^{th}\ to\ 19^{th}\ January,\ 2017)$

Observed mainly clear sky but foggy at foothills during morning hours of 13^{th} and 14^{th} Jan, 2017 and no rainfall in past three days. Maximum temperature range of 22.8 to 23.3 °C and minimum temperature range of 3.5 to 4.1 °C with mean relative humidity 90.7 % max and 42.7 % min was recorded in the past four days. The average wind speed range remained 1.4 to 2.3 km/hr.

Weather forecast for next five days of Imphal West (21st to 25th January, 2017)

Likely to have no rain upto Sunday. Shallow to moderate fog during morning hours of next three days and mainly clear sky during day time with maximum temp. $22-24\,^{\circ}\,\text{C}$ & minimum temp. $2-4\,^{\circ}\,\text{C}$. Relative humidity may reach up to 96 % (max RH) & 27 % (min RH). The average wind speed may be 4-5 km/hr. Wind direction may be North Easterly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops	1		J
Potato	Vegetative to flowering		 Irrigate if soil is dry. If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.
		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.
		Late Blight	- As a prophylactic measure against late blight, spray Metalaxyl based fungicide, like Redomil MZ-72 WP @ 2 gm/lit alternately with Mencozeb @ 2gm/lit of water at 14 days interval for 2-3 times.
Rapeseed/ Mustard	Vegetative to flowering		 Regular monitoring of moisture of soil may be done to ensure good growth. Irrigation may be given if the soil moisture have decline. If flowering has started, then four bee boxes may be kept for one hectare crop
		Aphid	 area. Avoid spray of insecticides in such area. Use yellow plates for every 3 sq.m to attract the aphids or spray Pyrethrum @ 2ml/ litre of water on the infected patches.
		Hairy caterpillar	- Spray Quinalphos or Chloropyriphos @ 2ml/litre of water on the infected patches only.
Pulses	Vegetative to flowering and		- Give light irrigation to pea and lentil just to keep soil moist during vegetative stage.
	fruiting	Rust or Powdery mildew	- Spray Propiconazole @ 15ml/ 15 litre water.
		Aphid	- Spray Imidachloprid 17.8 SL @ 7-10ml/ 15 litre of water against aphid.
Rabi maize	Sowing to vegetative		Sowing of rabi maize may be done.Irrigate field, if the soil is dry.
Seeds storage	Post harvest management		 For seed purpose dry, clean and store the seeds in <i>RC-seed bins</i> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in <i>godowns</i>.
Horticulture Crops			1 % III gouowns.
Banana		Sigatoka Leaf Spot	- If Sigatoka Leaf Spot disease is observed then spray Calixin @ 1 ml/ lit of water.
			- 200g, 300g and 500g Urea, SSP and MOP respectively should be applied in three split doses at two, six and eight months after planting.
Citrus	After harvesting		Remove water sprouts (tender green shoots emerged from main stem), dried and dead branches after harvesting of fruits. Paste the cut ends with Bordeaux paste.
Cucurbits	Nursery raising		 Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost poly-house or naturally ventilated polyhouse. Land preparation for transplanting may be started.
French bean and Bhindi	Land Preparation		Land preparation for sowing may be started.
Rabi Vegetable (cole crops)	Vegetative to head formation		- If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @ 2ml/ 10 lit of water.
Tomato	Vegetative		- Light watering may be done to maintain soil moisture.



Manipur Centre, Lamphelpat, Imphal - 795 004





Garden pea/ Broa bean	Vegetative flowering	Vegetative to flowering			 - Light watering may be done to maintain soil moisture. - Earthing up and top dressing with 20kg urea per ha followed by watering may be advised to the farmers. 		
			powdery mildev and yellow rust		- Spray Bayleton @ 7 g/ 10 litres of water against powdery mildew and yellow rust especially to the crops grown in moist/ shady area.		
Onion	Vegetative				 Give light irrigation if the soil is dry. 30 to 45 days old transplanted onion should be top dressed with 20-25 kg urea/sangam depending upon the fertility. 		
Cauliflower	Vegetative head forma		Plutella, Daimo Black Moth		- Light watering may be done to maintain soil moisture. Spray Dichlorovos 76 EC @ 1ml/ lit of water may be sprayed at 7 days interval depending upon the severity of the infestation.		
Coriander	Vegetative				 Light watering may be done to maintain soil moisture. For late, treat seed with Trichoderma harzianum @ 4g/kg seed is recommended to protect against soil borne diseases. 		
Spinach (Palak)	Vegetative				- Light watering may be done to maintain soil moisture.		
Animal Sciences							
Name of the anim	al			,			
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care	Care & management		Protect from intense cold. Keep the shed wall covered with hessian cloth during night. Proper ventilation must be provided to protect from moisture inside the shed. Litter must be kept dry.		
			Ranikhet disease		 F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. R₂B vaccine of 8-9 weeks of age group birds (layers). 		
			<u> </u>		lled ND virus vaccine of 16-18 weeks of age group birds (layers).		
Sheep/ Goat	All age groups	Deworming			Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.		
	excepts the young ones		accination		inate against sheep/ goat pox and Enterotoxaemia.		
	All age groups		De-worming		De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.		
Pig	except the young ones	Care	and management	Γ <	Mineral mixture be added in feed @10-20 g/adult animal. Freat drinking water with potassium permanganate/ sanitizer. Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds		
			infestation	> S	Spray with Skin Heal Spray in sufficient quantity.		
Cattle	All age groups	Dewo	orming		Give Piperazine liquid @ 10-15ml orally once only.		
	excepts the young ones		H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc.			
Fishery:			parasites	- But	ox@ 2ml/lit of water at forth nightly interval.		
Type of Farming Carp/ Catfish culture Harvesting and stock				10,00	cking of fish for next year may be done in ponds having 1.5m water depth @ 00/ ha. ds should be provided @ 3 % body weight per day.		
	maintenance				ll balanced feed fortified with vitamins and minerals should be provided. bly Lime @ 30-35 kg/ha at 30days interval.		



Manipur Centre, Lamphelpat, Imphal - 795 004





MANIPUR BULLETIN 20th January, 2017

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 21st to 25th January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West $(17^{th}\ to\ 19^{th}\ January,\ 2017)$

Observed mainly clear sky but foggy at foothills during morning hours of 13^{th} and 14^{th} Jan, 2017 and no rainfall in past three days. Maximum temperature range of 22.8 to 23.3 $^{\circ}$ C and minimum temperature range of 3.5 to 4.1 $^{\circ}$ C with mean relative humidity 90.7 % max and 42.7 % min was recorded in the past four days. The average wind speed range remained 1.4 to 2.3 km/hr.

Weather forecast for next five days of Bishnupur (21st to 25th January, 2017)

Likely to have no rain upto Sunday. Shallow to moderate fog during morning hours of next three days and mainly clear sky during day time with maximum temp. $22-24\,^{\circ}\mathrm{C}$ & minimum temp. $3-5\,^{\circ}\mathrm{C}$. Relative humidity may reach up to 96 % (max RH) & 25 % (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be South Easterly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Potato	Vegetative to flowering		 Irrigate if soil is dry. If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.
		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.
		Late Blight	- As a prophylactic measure against late blight, spray Metalaxyl based fungicide, like Redomil MZ-72 WP @ 2 gm/lit alternately with Mencozeb @ 2gm/lit of water at 14 days interval for 2-3 times.
Rapeseed/ Mustard	Vegetative to flowering		 Regular monitoring of moisture of soil may be done to ensure good growth. Irrigation may be given if the soil moisture have decline. If flowering has started, then four bee boxes may be kept for one hectare crop
		Aphid	area. Avoid spray of insecticides in such area. - Use yellow plates for every 3 sq.m to attract the aphids or spray Pyrethrum @ 2ml/ litre of water on the infected patches.
		Hairy caterpillar	- Spray Quinalphos or Chloropyriphos @ 2ml/litre of water on the infected patches only.
Pulses	Vegetative to flowering and		- Give light irrigation to pea and lentil just to keep soil moist during vegetative stage.
	fruiting	Rust or Powdery mildew	- Spray Propiconazole @ 15ml/ 15 litre water.
		Aphid	- Spray Imidachloprid 17.8 SL @ 7-10ml/ 15 litre of water against aphid.
Rabi maize	Sowing to vegetative		Sowing of rabi maize may be done.Irrigate field, if the soil is dry.
Seeds storage	Post harvest management		- For seed purpose dry, clean and store the seeds in <i>RC-seed bins</i> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of seeds.
			- After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in <i>godowns</i> .
Horticulture Crops			,
Banana		Sigatoka Leaf Spot	- If Sigatoka Leaf Spot disease is observed then spray Calixin @ 1 ml/ lit of water.
			- 200g, 300g and 500g Urea, SSP and MOP respectively should be applied in three split doses at two, six and eight months after planting.
Citrus	After harvesting		Remove water sprouts (tender green shoots emerged from main stem), dried and dead branches after harvesting of fruits. Paste the cut ends with Bordeaux paste.
Cucurbits	Nursery raising		 Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost poly-house or naturally ventilated polyhouse. Land preparation for transplanting may be started.
French bean and Bhindi	Land Preparation		Land preparation for sowing may be started.
Rabi Vegetable (cole crops)	Vegetative to head formation		- If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @ 2ml/ 10 lit of water.
Tomato	Vegetative		- Light watering may be done to maintain soil moisture.



Manipur Centre, Lamphelpat, Imphal - 795 004



"Gramin Krishi Mausam Seva"



Garden pea/ Bro		etative t	to		- Light watering may be done to maintain soil moisture.		
bean	flow	ering			- Earthing up and top dressing with 20kg urea per ha followed by watering may		
					be advised to the farmers.		
				powdery milder			
				and yellow rust			
Onion	Veg	etative			- Give light irrigation if the soil is dry.		
					- 30 to 45 days old transplanted onion should be top dressed with 20-25 kg urea/		
					sangam depending upon the fertility.		
Cauliflower		etative t		DI II D	- Light watering may be done to maintain soil moisture.		
	heac	d format	ion	Plutella, Daimo			
G ! I	V	-4-4:		Black Moth	depending upon the severity of the infestation.		
Coriander	veg	etative			- Light watering may be done to maintain soil moisture.		
					- For late, treat seed with Trichoderma harzianum @ 4g/kg seed is recommended to protect against soil borne diseases.		
Spinach (Palak	Veg	etative			- Light watering may be done to maintain soil moisture.		
Animal Science		ctative			- Light watering may be done to maintain son moisture.		
Name of the anin							
Poultry	All age	orone.	Coro	& management	Protect from intense cold. Keep the shed wall covered with hessian cloth during night.		
(Chicken/	All age	groups	Care	x management	Proper ventilation must be provided to protect from moisture inside the shed. Litter		
	Curkey/ Duck)				must be kept dry.		
rumej/ Duen/			Ranik	het disease	1. F-1 Strain may be first administered within 7 days of age and second dose may be		
			ramanet discuse		given at 30days for all birds.		
					2. R ₂ 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).		
			Deworming		➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with		
Sheep/ Goat	All age	_ 1			half the dose at regular interval of 3 weeks.		
	excepts young o		Vacci	nation	Vaccinate against sheep/ goat pox and Enterotoxaemia.		
			De-worming		➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5		
	All age	groups			mg/kg b.wt. or Ivermectin @50mg/kg b. wt.		
Pig	except the	he	Care a	and management			
115	young o	nes			> Treat drinking water with potassium permanganate/ sanitizer.		
					Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds		
				infestation	> Spray with Skin Heal Spray in sufficient quantity.		
Cattle	All age		Dewo	rming	Give Piperazine liquid @ 10-15ml orally once only.		
	excepts		D O /	II C/EMD	Fact & Marth Discount of Black Quarter now, Haemorrhagic septicaemia,		
	young o	nes		H.S/FMD	Foot & Mouth Disease, etc.		
F:1	Ectoparasite		arasites	- Butox@ 2ml/lit of water at forth nightly interval.			
Fishery: Type of Farming							
Carp/ Catfish	Harvesting	g and			- Stocking of fish for next year may be done in ponds having 1.5m water depth @ 10,000/ ha.		
culture	stock	-			- Feeds should be provided @ 3 % body weight per day.		
	maintenan	ice			- Well balanced feed fortified with vitamins and minerals should be provided.		
					- Apply Lime @ 30-35 kg/ha at 30days interval.		



Manipur Centre, Lamphelpat, Imphal - 795 004





MANIPUR BULLETIN 20th January, 2017

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 21st to 25th January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West $(17^{th}\ to\ 19^{th}\ January,\ 2017)$

Observed mainly clear sky but foggy at foothills during morning hours of 13^{th} and 14^{th} Jan, 2017 and no rainfall in past three days. Maximum temperature range of 22.8 to 23.3 °C and minimum temperature range of 3.5 to 4.1 °C with mean relative humidity 90.7 % max and 42.7 % min was recorded in the past four days. The average wind speed range remained 1.4 to 2.3 km/hr.

Weather forecast for next five days of Chandel (21st to 25th January, 2017)

Likely to have no rain upto Sunday. Shallow to moderate fog during morning hours of next three days and mainly clear sky during day time with maximum temp. $21-23\,^{\circ}$ C & minimum temp. 2 - $4\,^{\circ}$ C. Relative humidity may reach up to 93 % (max RH) & 32 % (min RH). The average wind speed may be 3-4 km/hr. Wind direction may be Westerly during next five days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops		,L	1
Potato	Vegetative to flowering		 Irrigate if soil is dry. If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.
		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.
		Late Blight	- As a prophylactic measure against late blight, spray Metalaxyl based fungicide, like Redomil MZ-72 WP @ 2 gm/lit alternately with Mencozeb @ 2gm/lit of water at 14 days interval for 2-3 times.
Rapeseed/ Mustard	Vegetative to flowering		- Regular monitoring of moisture of soil may be done to ensure good growth. Irrigation may be given if the soil moisture have decline.
			- If flowering has started, then four bee boxes may be kept for 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.
		Hairy caterpillar	- Spray Quinalphos or Chloropyriphos @ 2ml/litre of water on the infected patches only.
Pulses	Vegetative to flowering and		- Give light irrigation to pea and lentil just to keep soil moist during vegetative stage.
	fruiting	Rust or Powdery mildew	- Spray Propiconazole @ 15ml/ 15 litre water.
		Aphid	- Spray Imidachloprid 17.8 SL @ 7-10ml/ 15 litre of water against aphid.
Rabi maize	Sowing to vegetative		- Sowing of rabi maize may be done Irrigate field, if the soil is dry.
Seeds storage	Post harvest management		 For seed purpose dry, clean and store the seeds in <i>RC-seed bins</i> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in <i>godowns</i>.
Horticulture Crops		L	J
Banana		Sigatoka Leaf Spot	- If Sigatoka Leaf Spot disease is observed then spray Calixin @ 1 ml/ lit of water.
			- 200g, 300g and 500g Urea, SSP and MOP respectively should be applied in three split doses at two, six and eight months after planting.
Citrus	After harvesting		Remove water sprouts (tender green shoots emerged from main stem), dried and dead branches after harvesting of fruits. Paste the cut ends with Bordeaux paste.
Cucurbits	Nursery raising		 Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost poly-house or naturally ventilated polyhouse. Land preparation for transplanting may be started.
French bean and Bhindi	Land Preparation		Land preparation for sowing may be started.
Rabi Vegetable	Vegetative to		- If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @
(cole crops)	head formation		2ml/10 lit of water.
Tomato	Vegetative		- Light watering may be done to maintain soil moisture.



Manipur Centre, Lamphelpat, Imphal - 795 004





Garden pea/ Broa		to			- Light watering may be done to maintain soil moisture.
bean	flowering				- Earthing up and top dressing with 20kg urea per ha followed by watering may be advised to the farmers.
			powdery milde		- Spray Bayleton @ 7 g/ 10 litres of water against powdery mildew and yellow
			and yellow rust		rust especially to the crops grown in moist/ shady area.
Onion	Vegetative		und yellow ruse		- Give light irrigation if the soil is dry.
Omon	v egetative				- 30 to 45 days old transplanted onion should be top dressed with 20-25 kg urea/
					sangam depending upon the fertility.
Cauliflower	Vegetative t	to			- Light watering may be done to maintain soil moisture.
	head format		Plutella, Daimo		Spray Dichlorovos 76 EC @ 1ml/ lit of water may be sprayed at 7 days interval
			Black Moth		depending upon the severity of the infestation.
Coriander	Vegetative				- Light watering may be done to maintain soil moisture.
					- For late, treat seed with Trichoderma harzianum @ 4g/kg seed is recommended
					to protect against soil borne diseases.
Spinach (Palak)) Vegetative				- Light watering may be done to maintain soil moisture.
Animal Sciences	S				
Name of the anim					
Poultry	All age groups	Care d	& management		ct from intense cold. Keep the shed wall covered with hessian cloth during night.
(Chicken/					r ventilation must be provided to protect from moisture inside the shed. Litter
Turkey/ Duck)	Turkey/ Duck)				be kept dry.
			Ranikhet disease		Strain may be first administered within 7 days of age and second dose may be
					at 30days for all birds.
					3 vaccine of 8-9 weeks of age group birds (layers).
		Darre			led ND virus vaccine of 16-18 weeks of age group birds (layers). Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with
Sheep/ Goat	All age groups	Deworming			alf the dose at regular interval of 3 weeks.
Sheep/ Goat	excepts the	Vaccination			nate against sheep/ goat pox and Enterotoxaemia.
	young ones			v acci	nate against sheep/ goat pox and Enterotoxacinia.
	jouing ones	De-we	orming	> D	De-worming of animals should be done using Abendazole/ Levamisole @7.5
	All age groups	De worming			ng/kg b.wt. or Ivermectin @50mg/kg b. wt.
D'.	except the	Care a	and management		Ineral mixture be added in feed @10-20 g/adult animal.
Pig	young ones			> T	reat drinking water with potassium permanganate/ sanitizer.
				> P	rovide ample ventilation in the shed/dry bedding. Avoid dampness in sheds
			infestation		pray with Skin Heal Spray in sufficient quantity.
Cattle	All age groups	Dewo	rming		ive Piperazine liquid @ 10-15ml orally once only.
Cattle	excepts the				f not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia,
	young ones		H.S/FMD		oot & Mouth Disease, etc.
	Ector		arasites	- Buto	ox@ 2ml/lit of water at forth nightly interval.
Fishery: Type of Farming					
Carp/ Catfish	Harvesting and			10,000	
culture	stock				ds should be provided @ 3 % body weight per day.
	maintenance				l balanced feed fortified with vitamins and minerals should be provided.
				- App	ly Lime @ 30-35 kg/ha at 30days interval.



Manipur Centre, Lamphelpat, Imphal - 795 004





MANIPUR BULLETIN 20th January, 2017

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 21st to 25th January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West $(17^{th}\ to\ 19^{th}\ January,\ 2017)$

Observed mainly clear sky but foggy at foothills during morning hours of 13^{th} and 14^{th} Jan, 2017 and no rainfall in past three days. Maximum temperature range of 22.8 to 23.3 °C and minimum temperature range of 3.5 to 4.1 °C with mean relative humidity 90.7 % max and 42.7 % min was recorded in the past four days. The average wind speed range remained 1.4 to 2.3 km/hr.

Weather forecast for next five days of Churachandpur $(21^{st}$ to 25^{th} January, 2017)

Likely to have no rain upto Sunday. Shallow to moderate fog during morning hours of next three days and mainly clear sky during day time with maximum temp. $21-23\,^{\circ}$ C & minimum temp. $2-4\,^{\circ}$ C. Relative humidity may reach up to 98 % (max RH) & 26 % (min RH). The average wind speed may be 4 km/hr. Wind direction may be South Easterly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops		·	J
Potato	Vegetative to flowering		 Irrigate if soil is dry. If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.
		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.
		Late Blight	- As a prophylactic measure against late blight, spray Metalaxyl based fungicide, like Redomil MZ-72 WP @ 2 gm/lit alternately with Mencozeb @ 2gm/lit of water at 14 days interval for 2-3 times.
Rapeseed/ Mustard	Vegetative to flowering		- Regular monitoring of moisture of soil may be done to ensure good growth. Irrigation may be given if the soil moisture have decline.
			- If flowering has started, then four bee boxes may be kept for 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.
		Hairy caterpillar	- Spray Quinalphos or Chloropyriphos @ 2ml/litre of water on the infected patches only.
Pulses	Vegetative to flowering and		- Give light irrigation to pea and lentil just to keep soil moist during vegetative stage.
	fruiting	Rust or Powdery mildew	- Spray Propiconazole @ 15ml/ 15 litre water.
		Aphid	- Spray Imidachloprid 17.8 SL @ 7-10ml/ 15 litre of water against aphid.
Rabi maize	Sowing to vegetative		- Sowing of rabi maize may be done Irrigate field, if the soil is dry.
Seeds storage	Post harvest management		 For seed purpose dry, clean and store the seeds in <i>RC-seed bins</i> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion
			1% in <i>godowns</i> .
Horticulture Crops		T	
Banana		Sigatoka Leaf Spot	- If Sigatoka Leaf Spot disease is observed then spray Calixin @ 1 ml/ lit of water.
			- 200g, 300g and 500g Urea, SSP and MOP respectively should be applied in three split doses at two, six and eight months after planting.
Citrus	After harvesting		Remove water sprouts (tender green shoots emerged from main stem), dried and dead branches after harvesting of fruits. Paste the cut ends with Bordeaux paste.
Cucurbits	Nursery raising		 - Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost poly-house or naturally ventilated polyhouse. - Land preparation for transplanting may be started.
French bean and Bhindi	Land Preparation		Land preparation for sowing may be started.
Rabi Vegetable	Vegetative to		- If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @
(cole crops)	head formation		2ml/ 10 lit of water.
Tomato	Vegetative		- Light watering may be done to maintain soil moisture.



Manipur Centre, Lamphelpat, Imphal - 795 004



"Gramin Krishi Mausam Seva"



Garden pea/ Bro		e to		- Light watering may be done to maintain soil moisture.		
bean	flowering			- Earthing up and top dressing with 20kg urea per ha followed by watering may be advised to the farmers.		
			powdery mildey			
			and yellow rust			
Onion	Vegetative		,	- Give light irrigation if the soil is dry.		
Omon				- 30 to 45 days old transplanted onion should be top dressed with 20-25 kg urea/		
				sangam depending upon the fertility.		
Cauliflower	Vegetative	to		- Light watering may be done to maintain soil moisture.		
	head forma	tion	Plutella, Daimo			
			Black Moth	depending upon the severity of the infestation.		
Coriander	Vegetative			- Light watering may be done to maintain soil moisture.		
				- For late, treat seed with Trichoderma harzianum @ 4g/kg seed is recommended		
Cnincol (Dolok) Vegetative			to protect against soil borne diseases. - Light watering may be done to maintain soil moisture.		
Spinach (Palak	,			- Light watering may be done to maintain son moisture.		
Animal Science						
Name of the anin	All age groups	Como	& management	Protect from intense cold. Keep the shed wall covered with hessian cloth during night.		
(Chicken/	All age groups	Care	& management	Proper ventilation must be provided to protect from moisture inside the shed. Litter		
Turkey/ Duck)				must be kept dry.		
rarrieg, zaerr)		Ranik	thet 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.		
				2. R ₂ 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).		
		Dewo	orming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with		
Sheep/ Goat	All age groups			half the dose at regular interval of 3 weeks.		
	excepts the young ones	Vacci	nation	Vaccinate against sheep/ goat pox and Enterotoxaemia.		
		De-w	orming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5		
	All age groups			mg/kg b.wt. or Ivermectin @50mg/kg b. wt.		
Pig	except the	Care	and management			
	young ones			Treat drinking water with potassium permanganate/ sanitizer.		
		3.4.4		> Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds		
	All age groups		infestation orming	 Spray with Skin Heal Spray in sufficient quantity. Give Piperazine liquid @ 10-15ml orally once only. 		
Cattle	excepts the	Dewc	nning	 Give riperazine inquit @ 10-15ini orany once only. If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, 		
	young ones	B.O./	H.S/FMD	Foot & Mouth Disease, etc.		
young ones			parasites	- Butox@ 2ml/lit of water at forth nightly interval.		
Fishery:		F				
Type of Farming						
Carp/ Catfish	Harvesting and			- Stocking of fish for next year may be done in ponds having 1.5m water depth @ 10,000/ ha.		
culture	stock			- Feeds should be provided @ 3 % body weight per day.		
Culture	maintenance			- Well balanced feed fortified with vitamins and minerals should be provided.		
				- Apply Lime @ 30-35 kg/ha at 30days interval.		
	l	1		1 - Tr-7 C 50 50 Ng m m 500m/5 Inter-inter-		



Manipur Centre, Lamphelpat, Imphal - 795 004





MANIPUR BULLETIN 20th January, 2017

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 21st to 25th January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West $(17^{th}\ to\ 19^{th}\ January,\ 2017)$

Observed mainly clear sky but foggy at foothills during morning hours of 13^{th} and 14^{th} Jan, 2017 and no rainfall in past three days. Maximum temperature range of 22.8 to 23.3 °C and minimum temperature range of 3.5 to 4.1 °C with mean relative humidity 90.7 % max and 42.7 % min was recorded in the past four days. The average wind speed range remained 1.4 to 2.3 km/hr.

Weather forecast for next five days of Senapati (21st to 25th January, 2017)

Likely to have no rain upto Sunday. Shallow to moderate fog during morning hours of next three days and mainly clear sky during day time with maximum temp. 17 – 19 $^{\circ}$ C & minimum temp. 1 - 3 $^{\circ}$ C. Relative humidity may reach up to 92 % (max RH) & 29 % (min RH). The average wind speed may be 4 km/hr. Wind direction may be North Easterly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Potato	Vegetative to flowering		 - Irrigate if soil is dry. - If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.
		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.
		Late Blight	- As a prophylactic measure against late blight, spray Metalaxyl based fungicide, like Redomil MZ-72 WP @ 2 gm/lit alternately with Mencozeb @ 2gm/lit of water at 14 days interval for 2-3 times.
Rapeseed/ Mustard	Vegetative to flowering		 Regular monitoring of moisture of soil may be done to ensure good growth. Irrigation may be given if the soil moisture have decline. If flowering has started, then four bee boxes may be kept for one hectare crop
		Aphid	area. Avoid spray of insecticides in such area. - Use yellow plates for every 3 sq.m to attract the aphids or spray Pyrethrum @ 2ml/ litre of water on the infected patches.
		Hairy caterpillar	- Spray Quinalphos or Chloropyriphos @ 2ml/litre of water on the infected patches only.
Pulses	Vegetative to flowering and		- Give light irrigation to pea and lentil just to keep soil moist during vegetative stage.
	fruiting	Rust or Powdery mildew	- Spray Propiconazole @ 15ml/ 15 litre water.
		Aphid	- Spray Imidachloprid 17.8 SL @ 7-10ml/ 15 litre of water against aphid.
Rabi maize	Sowing to vegetative		- Sowing of rabi maize may be done Irrigate field, if the soil is dry.
Seeds storage	Post harvest management		 For seed purpose dry, clean and store the seeds in <i>RC-seed bins</i> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion
			1% in godowns.
Horticulture Crops			
Banana		Sigatoka Leaf Spot	- If Sigatoka Leaf Spot disease is observed then spray Calixin @ 1 ml/ lit of water.
			- 200g, 300g and 500g Urea, SSP and MOP respectively should be applied in three split doses at two, six and eight months after planting.
Citrus	After harvesting		Remove water sprouts (tender green shoots emerged from main stem), dried and dead branches after harvesting of fruits. Paste the cut ends with Bordeaux paste.
Cucurbits	Nursery raising		 - Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost poly-house or naturally ventilated polyhouse. - Land preparation for transplanting may be started.
French bean and Bhindi	Land Preparation		Land preparation for sowing may be started.
Rabi Vegetable	Vegetative to		- If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @
(cole crops)	head formation		2ml/ 10 lit of water.
Tomato	Vegetative		- Light watering may be done to maintain soil moisture.



Manipur Centre, Lamphelpat, Imphal - 795 004





Garden pea/ Broad bean Vegetative to flowering				- E	ight watering may be done to maintain soil moisture. arthing up and top dressing with 20kg urea per ha followed by watering may advised to the farmers.		
			powdery milder and yellow rust	- S	pray Bayleton @ 7 g/ 10 litres of water against powdery mildew and yellow t especially to the crops grown in moist/ shady area.		
Onion	Vegetative		- 3	tive light irrigation if the soil is dry. 0 to 45 days old transplanted onion should be top dressed with 20-25 kg urea/ agam depending upon the fertility.			
Cauliflower Vegetative to head formati			Plutella, Daimo	- L	ight watering may be done to maintain soil moisture. ray Dichlorovos 76 EC @ 1ml/ lit of water may be sprayed at 7 days interval bending upon the severity of the infestation.		
Coriander	vegetative Vegetative		But Hou		ight watering may be done to maintain soil moisture. or late, treat seed with Trichoderma harzianum @ 4g/kg seed is recommended protect against soil borne diseases.		
Spinach (Palak) Vegetati	ve		- L	ight watering may be done to maintain soil moisture.		
Animal Science							
Name of the anim	nal			J.			
Poultry (Chicken/ Turkey/ Duck)	All age grou	ps Care	& management	Protect from intense cold. Keep the shed wall covered with hessian cloth during night. Proper ventilation must be provided to protect from moisture inside the shed. Litter must be kept dry.			
		Ranil	Ranikhet disease		 F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. R₂B vaccine of 8-9 weeks of age group birds (layers). 		
				3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).			
Sheep/ Goat	All age grou		Deworming		Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with the dose at regular interval of 3 weeks.		
	excepts the young ones		Vaccination		e against sheep/ goat pox and Enterotoxaemia.		
All age groups		ps	De-worming		worming of animals should be done using Abendazole/ Levamisole @7.5 kg b.wt. or Ivermectin @50mg/kg b. wt.		
Pig	except the young ones	Care	Care and management		eral mixture be added in feed @10-20 g/adult animal. t drinking water with potassium permanganate/ sanitizer. ride ample ventilation in the shed/ dry bedding. Avoid dampness in sheds		
		Mites	Mites infestation		y with Skin Heal Spray in sufficient quantity.		
a	All age grou		Deworming		e Piperazine liquid @ 10-15ml orally once only.		
Cattle	excepts the young ones	,	B.Q./ H.S/FMD		➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc.		
		Ector	Ectoparasites		- Butox@ 2ml/lit of water at forth nightly interval.		
Fishery: Type of Farming							
Carp/ Catfish culture	Harvesting and stock maintenance			10,000/ h	g of fish for next year may be done in ponds having 1.5m water depth @ na. hould be provided @ 3 % body weight per day.		
				- Well ba	alanced feed fortified with vitamins and minerals should be provided. Lime @ 30-35 kg/ha at 30days interval.		



Manipur Centre, Lamphelpat, Imphal - 795 004





MANIPUR BULLETIN 20th January, 2017

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 21st to 25th January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West $(17^{th}\ to\ 19^{th}\ January,\ 2017)$

Observed mainly clear sky but foggy at foothills during morning hours of 13^{th} and 14^{th} Jan, 2017 and no rainfall in past three days. Maximum temperature range of 22.8 to 23.3 °C and minimum temperature range of 3.5 to 4.1 °C with mean relative humidity 90.7 % max and 42.7 % min was recorded in the past four days. The average wind speed range remained 1.4 to 2.3 km/hr.

Weather forecast for next five days of Tamenglong (21st to 25th January, 2017)

Likely to have no rain upto Sunday. Shallow to moderate fog during morning hours of next three days and mainly clear sky during day time with maximum temp. $22-24\,^{\circ}$ C & minimum temp. $2-4\,^{\circ}$ C. Relative humidity may reach up to 98 % (max RH) & 22 % (min RH). The average wind speed may be 4-5 km/hr. Wind direction may be South Easterly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			J
Potato	Vegetative to flowering		 - Irrigate if soil is dry. - If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.
		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.
		Late Blight	- As a prophylactic measure against late blight, spray Metalaxyl based fungicide, like Redomil MZ-72 WP @ 2 gm/lit alternately with Mencozeb @ 2gm/lit of water at 14 days interval for 2-3 times.
Rapeseed/	Vegetative to		- Regular monitoring of moisture of soil may be done to ensure good growth.
Mustard	flowering		Irrigation may be given if the soil moisture have decline.
			- If flowering has started, then four bee boxes may be kept for 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.
		Hairy caterpillar	- Spray Quinalphos or Chloropyriphos @ 2ml/litre of water on the infected patches only.
Pulses	Vegetative to flowering and		- Give light irrigation to pea and lentil just to keep soil moist during vegetative stage.
	fruiting	Rust or Powdery mildew	- Spray Propiconazole @ 15ml/ 15 litre water.
		Aphid	- Spray Imidachloprid 17.8 SL @ 7-10ml/ 15 litre of water against aphid.
Rabi maize	Sowing to vegetative		- Sowing of rabi maize may be done Irrigate field, if the soil is dry.
Seeds storage	Post harvest management		- For seed purpose dry, clean and store the seeds in <i>RC-seed bins</i> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of seeds.
			- After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in <i>godowns</i> .
Horticulture Crops			
Banana		Sigatoka Leaf Spot	- If Sigatoka Leaf Spot disease is observed then spray Calixin @ 1 ml/ lit of water.
			- 200g, 300g and 500g Urea, SSP and MOP respectively should be applied in three split doses at two, six and eight months after planting.
Citrus	After harvesting		Remove water sprouts (tender green shoots emerged from main stem), dried and dead branches after harvesting of fruits. Paste the cut ends with Bordeaux paste.
Cucurbits	Nursery raising		 Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost poly-house or naturally ventilated polyhouse. Land preparation for transplanting may be started.
French bean and Bhindi	Land Preparation		Land preparation for sowing may be started.
Rabi Vegetable	Vegetative to		- If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @
(cole crops)	head formation		2ml/ 10 lit of water.
Tomato	Vegetative		- Light watering may be done to maintain soil moisture.



Manipur Centre, Lamphelpat, Imphal - 795 004





Garden pea/ Broa		to			- Light watering may be done to maintain soil moisture.		
bean flowering					- Earthing up and top dressing with 20kg urea per ha followed by watering may		
					be advised to the farmers.		
			powdery mildew and yellow rust		- Spray Bayleton @ 7 g/ 10 litres of water against powdery mildew and yellow		
					rust especially to the crops grown in moist/ shady area.		
Onion	Vegetative				- Give light irrigation if the soil is dry.		
					- 30 to 45 days old transplanted onion should be top dressed with 20-25 kg urea/		
					sangam depending upon the fertility.		
Cauliflower	Vegetative t	Vegetative to head formation			- Light watering may be done to maintain soil moisture.		
	head format			nd	Spray Dichlorovos 76 EC @ 1ml/ lit of water may be sprayed at 7 days interval		
					depending upon the severity of the infestation.		
Coriander	Vegetative				- Light watering may be done to maintain soil moisture.		
					- For late, treat seed with Trichoderma harzianum @ 4g/kg seed is recommended		
					to protect against soil borne diseases.		
Spinach (Palak) Vegetative				- Light watering may be done to maintain soil moisture.		
Animal Sciences	S						
Name of the anin	nal						
Poultry	All age groups	Care	& management	Protec	ct from intense cold. Keep the shed wall covered with hessian cloth during night.		
(Chicken/					r ventilation must be provided to protect from moisture inside the shed. Litter		
Turkey/ Duck)				must l	be kept dry.		
-		Ranik	thet 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. 2. R ₂ 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).			
		Dewo	Deworming		Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with		
Sheep/ Goat	All age groups	Vaccination			alf the dose at regular interval of 3 weeks.		
	excepts the young ones			Vacci	nate against sheep/ goat pox and Enterotoxaemia.		
		De-worming Care and management		> D	De-worming of animals should be done using Abendazole/ Levamisole @7.5		
	All age groups			mg/kg b.wt. or Ivermectin @50mg/kg b. wt.			
Pig	except the				Aineral mixture be added in feed @10-20 g/adult animal.		
rig	young ones			➤ Treat drinking water with potassium permanganate/ sanitizer.			
					Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds		
Cattle		Mites infestation			pray with Skin Heal Spray in sufficient quantity.		
	All age groups	Deworming		➤ Give Piperazine liquid @ 10-15ml orally once only.			
	excepts the				f not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia,		
	young ones		B.Q./ H.S/FMD		Foot & Mouth Disease, etc.		
		Ectop	Ectoparasites		- Butox@ 2ml/lit of water at forth nightly interval.		
Fishery: Type of Farming							
	Unwegting and			- Stoc 10,00	king of fish for next year may be done in ponds having 1.5m water depth @		
Carp/ Catfish	Harvesting and stock						
culture					Is should be provided @ 3 % body weight per day. I balanced feed fortified with vitamins and minerals should be provided.		
	maintenance				ly Lime @ 30-35 kg/ha at 30days interval.		
				- App	Ty Linic & 50-33 kg/na at 300ays interval.		



Manipur Centre, Lamphelpat, Imphal - 795 004





MANIPUR BULLETIN 20th January, 2017

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 21st to 25th January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West $(17^{th}\ to\ 19^{th}\ January,\ 2017)$

Observed mainly clear sky but foggy at foothills during morning hours of 13^{th} and 14^{th} Jan, 2017 and no rainfall in past three days. Maximum temperature range of 22.8 to 23.3 $^{\circ}$ C and minimum temperature range of 3.5 to 4.1 $^{\circ}$ C with mean relative humidity 90.7 % max and 42.7 % min was recorded in the past four days. The average wind speed range remained 1.4 to 2.3 km/hr.

Weather forecast for next five days of Thoubal $(21^{st}$ to 25^{th} January, 2017)

Likely to have no rain upto Sunday. Shallow to moderate fog during morning hours of next three days and mainly clear sky during day time with maximum temp. $22-23\,^{\circ}$ C & minimum temp. $2-4\,^{\circ}$ C. Relative humidity may reach up to 95 % (max RH) & 26 % (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be South Easterly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops	·		
Potato	Vegetative to flowering		 Irrigate if soil is dry. If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.
		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.
		Late Blight	- As a prophylactic measure against late blight, spray Metalaxyl based fungicide, like Redomil MZ-72 WP @ 2 gm/lit alternately with Mencozeb @ 2gm/lit of water at 14 days interval for 2-3 times.
Rapeseed/ Mustard	Vegetative to flowering		 Regular monitoring of moisture of soil may be done to ensure good growth. Irrigation may be given if the soil moisture have decline. If flowering has started, then four bee boxes may be kept for one hectare crop
		Aphid	 area. Avoid spray of insecticides in such area. Use yellow plates for every 3 sq.m to attract the aphids or spray Pyrethrum @ 2ml/ litre of water on the infected patches.
		Hairy caterpillar	- Spray Quinalphos or Chloropyriphos @ 2ml/litre of water on the infected patches only.
Pulses	Vegetative to flowering and		- Give light irrigation to pea and lentil just to keep soil moist during vegetative stage.
	fruiting	Rust or Powdery mildew	- Spray Propiconazole @ 15ml/ 15 litre water.
		Aphid	- Spray Imidachloprid 17.8 SL @ 7-10ml/ 15 litre of water against aphid.
Rabi maize	Sowing to vegetative		Sowing of rabi maize may be done.Irrigate field, if the soil is dry.
Seeds storage	Post harvest management		- For seed purpose dry, clean and store the seeds in <i>RC-seed bins</i> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of seeds.
			- After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in <i>godowns</i> .
Horticulture Crops			
Banana		Sigatoka Leaf Spot	- If Sigatoka Leaf Spot disease is observed then spray Calixin @ 1 ml/ lit of water.
			- 200g, 300g and 500g Urea, SSP and MOP respectively should be applied in three split doses at two, six and eight months after planting.
Citrus	After harvesting		Remove water sprouts (tender green shoots emerged from main stem), dried and dead branches after harvesting of fruits. Paste the cut ends with Bordeaux paste.
Cucurbits	Nursery raising		 - Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost poly-house or naturally ventilated polyhouse. - Land preparation for transplanting may be started.
French bean and Bhindi	Land Preparation		Land preparation for sowing may be started.
Rabi Vegetable (cole crops)	Vegetative to head formation		- If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @ 2ml/ 10 lit of water.
Tomato	Vegetative		- Light watering may be done to maintain soil moisture.



Manipur Centre, Lamphelpat, Imphal - 795 004





Garden pea/ Broad bean Vegetative to flowering				- E	ight watering may be done to maintain soil moisture. arthing up and top dressing with 20kg urea per ha followed by watering may advised to the farmers.		
			powdery milder and yellow rust	- S	pray Bayleton @ 7 g/ 10 litres of water against powdery mildew and yellow t especially to the crops grown in moist/ shady area.		
Onion	Vegetative		- 3	tive light irrigation if the soil is dry. 0 to 45 days old transplanted onion should be top dressed with 20-25 kg urea/ agam depending upon the fertility.			
Cauliflower Vegetative to head formati			Plutella, Daimo	- L	ight watering may be done to maintain soil moisture. ray Dichlorovos 76 EC @ 1ml/ lit of water may be sprayed at 7 days interval bending upon the severity of the infestation.		
Coriander	vegetative Vegetative		But Hou		ight watering may be done to maintain soil moisture. or late, treat seed with Trichoderma harzianum @ 4g/kg seed is recommended protect against soil borne diseases.		
Spinach (Palak) Vegetati	ve		- L	ight watering may be done to maintain soil moisture.		
Animal Science							
Name of the anim	nal			J.			
Poultry (Chicken/ Turkey/ Duck)	All age grou	ps Care	& management	Protect from intense cold. Keep the shed wall covered with hessian cloth during night. Proper ventilation must be provided to protect from moisture inside the shed. Litter must be kept dry.			
		Ranil	Ranikhet disease		 F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. R₂B vaccine of 8-9 weeks of age group birds (layers). 		
				3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).			
Sheep/ Goat	All age grou		Deworming		Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with the dose at regular interval of 3 weeks.		
	excepts the young ones		Vaccination		e against sheep/ goat pox and Enterotoxaemia.		
All age groups		ps	De-worming		worming of animals should be done using Abendazole/ Levamisole @7.5 kg b.wt. or Ivermectin @50mg/kg b. wt.		
Pig	except the young ones	Care	Care and management		eral mixture be added in feed @10-20 g/adult animal. t drinking water with potassium permanganate/ sanitizer. ride ample ventilation in the shed/ dry bedding. Avoid dampness in sheds		
		Mites	Mites infestation		y with Skin Heal Spray in sufficient quantity.		
a	All age grou		Deworming		e Piperazine liquid @ 10-15ml orally once only.		
Cattle	excepts the young ones	,	B.Q./ H.S/FMD		➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc.		
		Ector	Ectoparasites		- Butox@ 2ml/lit of water at forth nightly interval.		
Fishery: Type of Farming							
Carp/ Catfish culture	Harvesting and stock maintenance			10,000/ h	g of fish for next year may be done in ponds having 1.5m water depth @ na. hould be provided @ 3 % body weight per day.		
				- Well ba	alanced feed fortified with vitamins and minerals should be provided. Lime @ 30-35 kg/ha at 30days interval.		