

Manipur Centre, Lamphelpat, Imphal - 795 004





MANIPUR BULLETIN 24th 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 25th to 29th January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West $(20^{th} \text{ to } 23^{rd} \text{ January}, 2017)$

Observed mainly clear sky but shallow foggy at foothills during morning hours and no rainfall in past four days. Maximum temperature range of 24.1 to 24.3 $^{\circ}$ C and rise in minimum temperature range of 3.2 to 5.0 $^{\circ}$ C with mean relative humidity 92.8 % max and 39.0 % min was recorded in the past four days. The average wind speed range remained 2.1 to 2.9 km/hr.

Weather forecast for next five days of Ukhrul (25th to 29th January, 2017)

Likely to have no rain upto Sunday. Shallow to moderate fog during morning hours of next two days and mainly clear sky during day time with maximum temp. 19 – 21 $^{\circ}$ C & minimum temp. 2 - 4 $^{\circ}$ C. Relative humidity may reach up to 94 % (max RH) & 29 % (min RH). The average wind speed may be 3-5 km/hr. Wind direction may be South Westerly to Westerly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops		L	J
Potato	Vegetative to flowering		- Give light irrigation to keep soil moist 40-45 days old plants need 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 is dry.
			- Four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
		White rust	- Spray Dithane M-45 @ 2g/ litre of water at 10 days interval.
		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			1/0 111 8000 00000
Banana		Sigatoka Leaf Spot	- If Sigatoka Leaf Spot disease is observed then spray Calixin @ 1 ml/ lit of water.
			- 200g Urea, 300g SSP and 500g MOP should be applied in three split doses at two, six and eight months after planting.
Mango	Flowering		 Flower during 1st year of planting may be removed as it may suppress its corresponding growth that is essential in building up the young trees. To protect from mango hopper, spray 800ml Malathion 50 EC or 700ml of Thiodan in 250 litres of water. To protect from Mango fruit fly, Methyl Euginol trap 0.1% may be used @ 10 traps per hectare. Paint the trunk of tree with Bordeaux paste (1:1:100) upto a height of 4-5 feet above the ground as prophylactic measure against diseases.







Citrus	After har		esting		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	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 an Bhindi	Land Pre	Land Preparation			Land preparation for sowing may be started.		
Rabi Vegetable	Vegetativ	e to			- If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @		
(cole crops)	head form				2ml/ 10 lit of water.		
Tomato	Vegetativ	/e			- Light watering may be done to maintain soil moisture.		
Garden pea/ Brobean	Ad Vegetative 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	Vegetativ				 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 form		Plutella, Daimo Black Moth	nd	- 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	Vegetativ	/e	Brack Moth		 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	Spinach (Palak) Vegetative				- Light watering may be done to maintain soil moisture.		
Animal Science					J		
Name of the anin							
Poultry (Chicken/ Turkey/ Duck)	All age group	os 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.		
· ·		Rani	Ranikhet disease		7-1 Strain may be first administered within 7 days of age and second dose may be en at 30days for all birds. 2-2 B vaccine of 8-9 weeks of age group birds (layers).		
					Killed ND virus vaccine of 16-18 weeks of age group birds (layers).		
Sheep/ Goat	All age group	os	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	Man	Management		- Avoid keeping animals in a damp area; provide warmth to prevent from pneumonia.		
	All age group		vorming		De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.		
D'.	except the		and management		Mineral mixture be added in feed @10-20 g/adult animal.		
Pig	young ones				Treat drinking water with potassium permanganate/ sanitizer.		
			s infestation		Spray with Skin Heal Spray in sufficient quantity.		
	All age group	Dew	orming		Give Piperazine liquid @ 10-15ml orally once only.		
Cattle	excepts the		/ T. G . T	>	> If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia,		
	young ones		/ H.S/FMD		Foot & Mouth Disease, etc.		
	, ,		parasites		atox@ 2ml/lit of water at forth nightly interval.		
Fishery: Type of Farming		Fodd	ler cultivation	Fod	der crops should be irrigated every 20-30 days and 20-22 days for oat cultivation.		
Type of Farming				- Sto	ocking of fish for next year may be done in ponds having 1.5m water depth @		
Carp/ Catfish culture	Harvesting and stock			10,0 - Fe	2000/ ha. seeds should be provided @ 3 % body weight per day.		
	maintenance				ell balanced feed fortified with vitamins and minerals should be provided. oply Lime @ 30-35 kg/ha at 30days interval.		



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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 25th to 29th January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West $(20^{th}\ to\ 23^{rd}\ January,2017)$

Observed mainly clear sky but shallow foggy at foothills during morning hours and no rainfall in past four days. Maximum temperature range of 24.1 to 24.3 $^{\circ}$ C and rise in minimum temperature range of 3.2 to 5.0 $^{\circ}$ C with mean relative humidity 92.8 % max and 39.0 % min was recorded in the past four days. The average wind speed range remained 2.1 to 2.9 km/hr.

Weather forecast for next five days of Imphal East (25th to 29th January, 2017)

Likely to have no rain upto Sunday. Shallow to moderate fog during morning hours of next two days and mainly clear sky during day time with maximum temp. $24-25\,^{\circ}$ C & minimum temp. $5-6\,^{\circ}$ C. Relative humidity may reach up to 99 % (max RH) & 29 % (min RH). The average wind speed may be 2-5 km/hr. Wind direction may be North Easterly during next five days but westerly on 28^{th} Jan, 2017.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops	-		J
Potato	Vegetative to flowering		 Give light irrigation to keep soil moist. 40-45 days old plants need 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 is dry.
			- Four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
		White rust	- Spray Dithane M-45 @ 2g/ litre of water at 10 days interval.
		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 fruiting		stage.
		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		- Sowing of rabi maize may be done.
	vegetative		- Irrigate field, if the soil is dry.
Seeds storage	Post harvest		- For seed purpose dry, clean and store the seeds in RC-seed bins after proper
	management		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 Urea, 300g SSP and 500g MOP should be applied in three split doses at two, six and eight months after planting.
Mango	Flowering		 - Flower during 1st year of planting may be removed as it may suppress its corresponding growth that is essential in building up the young trees. - To protect from mango hopper, spray 800ml Malathion 50 EC or 700ml of Thiodan in 250 litres of water. - To protect from Mango fruit fly, Methyl Euginol trap 0.1% may be used @ 10 traps per hectare. - Paint the trunk of tree with Bordeaux paste (1:1:100) upto a height of 4-
			5 feet above the ground as prophylactic measure against diseases.







Citrus		After harves	esting			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 ar Bhindi	nd	Land Preparation				Land preparation for sowing may be started.		
Rabi Vegetable	9	Vegetative to	0			- If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @		
(cole crops)		head formati				2ml/ 10 lit of water.		
Tomato		Vegetative				- Light watering may be done to maintain soil moisture.		
Garden pea/ Bro bean		Vegetative to flowering	O			 - 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	V	- 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 to head formati		Plutella, Daimor Black Moth	nd	- 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		DIACK MOUII		 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 Science								
Name of the anir								
Poultry (Chicken/ Turkey/ Duck)		age groups	Care d	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.		
•			Ranik	Ranikhet disease		-1 Strain may be first administered within 7 days of age and second dose may be an at 30days for all birds. 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).			
Sheep/ Goat		age groups		rming		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.		
		epts the ing ones				oid keeping animals in a damp area; provide warmth to prevent from pneumonia.		
		age groups		orming		De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.		
Pig		ept the ing ones	Care a	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		
			Mites	infestation		Spray with Skin Heal Spray in sufficient quantity.		
			Dewo			Give Piperazine liquid @ 10-15ml orally once only.		
Cattle		age groups	0	0	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia,			
		epts the	B.Q./	H.S/FMD		Foot & Mouth Disease, etc.		
	you	ing ones		arasites		ntox@ 2ml/lit of water at forth nightly interval.		
				er cultivation		der crops should be irrigated every 20-30 days and 20-22 days for oat cultivation.		
Fishery: Type of Farming								
Carp/ Catfish		esting and			10,0	ocking of fish for next year may be done in ponds having 1.5m water depth @ 000/ ha.		
culture	stock maint	tenance			- W	eds should be provided @ 3 % body weight per day. ell balanced feed fortified with vitamins and minerals should be provided. oply Lime @ 30-35 kg/ha at 30days interval.		

Phone: 2414654, 2414260, 2414749 ; Fax : (0385) 2414654, 2414749





ICAR Research Complex for N.E.H. Region Manipur Centre, Lamphelpat, Imphal - 795 004 "Gramin Krishi Mausam Seva"



Scientist i/c, GKMS



Manipur Centre, Lamphelpat, Imphal - 795 004

"Gramin Krishi Mausam Seva"



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Imphal West

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Weather forecast for next five days of Imphal West $(25^{th}\ to\ 29^{th}\ January,\ 2017)$

Likely to have no rain upto Sunday. Shallow to moderate fog during morning hours of next two days and mainly clear sky during day time with maximum temp. $24-26\,^{\circ}$ C & minimum temp. $5-7\,^{\circ}$ C. Relative humidity may reach up to 99 % (max RH) & 29 % (min RH). The average wind speed may be 2-5 km/hr. Wind direction may be North Easterly during next five days but westerly on 28^{th} Jan, 2017.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			J
Potato	Vegetative to flowering	Cut worm	 Give light irrigation to keep soil moist. 40-45 days old plants need light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam. If cut-worm is observed then prepare poison bait of Trichlorfon (mixture of 1kg
		Late Blight	 husk + 40g sugar + 5g Trichlorfon + water) and apply manually by putting near the stem of plant above the soil surface. - As a prophylactic measure against late blight, spray Metalaxyl based fungicide,
		Late Bright	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 is dry. Four bee boxes may be kept for one hectare crop area. Avoid spray of
		White rust Aphid	insecticides in such area. - Spray Dithane M-45 @ 2g/ litre of water at 10 days interval. - Use yellow plates for every 3 sq.m to attract the aphids or spray Pyrethrum @
		Hairy caterpillar	2ml/ litre of water on the infected patches. - Spray Quinalphos or Chloropyriphos @ 2ml/litre of water on the infected patches only.
Pulses	Vegetative to flowering and	D. C. D. I	- Give light irrigation to pea and lentil just to keep soil moist during vegetative stage.
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Rabi maize	Sowing to vegetative	Tipinu	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			170 111 gowo 77101
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Garden pea/ Bro bean		Vegetative to flowering	O			 - 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. 		
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Pig		ept the ing ones	Care a	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		
			Mites	infestation		Spray with Skin Heal Spray in sufficient quantity.		
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Bishnupur

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Weather forecast for next five days of Bishnupur (25th to 29th January, 2017)

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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 is dry.
Triustui u			- Four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
		White rust	- Spray Dithane M-45 @ 2g/ litre of water at 10 days interval.
		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 fruiting		- Give light irrigation to pea and lentil just to keep soil moist during vegetative
			stage.
		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		- For seed purpose dry, clean and store the seeds in RC-seed bins after proper
8	management		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 Urea, 300g SSP and 500g MOP should be applied in three split doses at two, six and eight months after planting.
Mango	Flowering		 Flower during 1st year of planting may be removed as it may suppress its corresponding growth that is essential in building up the young trees. To protect from mango hopper, spray 800ml Malathion 50 EC or 700ml of Thiodan in 250 litres of water.
			- To protect from Mango fruit fly, Methyl Euginol trap 0.1% may be used @ 10 traps per hectare.
			- Paint the trunk of tree with Bordeaux paste (1:1:100) upto a height of 4-5 feet above the ground as prophylactic measure against diseases.



maintenance

ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004





ICAR						
Citrus	After harves				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 rais	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 ar Bhindi	nd Land Prepar	ration			Land preparation for sowing may be started.	
Rabi Vegetable	Vegetative t	to			- If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame)	
(cole crops)	head format				2ml/ 10 lit of water.	
Tomato	Vegetative				- Light watering may be done to maintain soil moisture.	
Garden pea/ Bro bean	Vegetative t flowering	to			 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 ures sangam depending upon the fertility. 	
Cauliflower	Vegetative t	to			- Light watering may be done to maintain soil moisture.	
	head format	ion	Plutella, Daimo Black Moth	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 Science	/	, I				
Name of the anir						
Poultry (Chicken/	All age groups	Care &	management		ect from intense cold. Keep the shed wall covered with hessian cloth during night. ber ventilation must be provided to protect from moisture inside the shed. Litter	
Turkey/ Duck)					t be kept dry.	
rurney, Duen)		Ranikhe	t disease		-1 Strain may be first administered within 7 days of age and second dose may be	
					n at 30days for all birds.	
					₂ B vaccine of 8-9 weeks of age group birds (layers).	
					illed ND virus vaccine of 16-18 weeks of age group birds (layers).	
Sheep/ Goat	All age groups	Deworn	ning	Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day half the dose at regular interval of 3 weeks.		
-	excepts the young ones	Manage	ment	- Av	oid keeping animals in a damp area; provide warmth to prevent from pneumonia.	
	All age groups	De-worr	ning		➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.	
Dt _a	except the	Care and	d management			
Pig	young ones				Treat drinking water with potassium permanganate/ sanitizer.	
				>	Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds	
		Mites in	festation		Spray with Skin Heal Spray in sufficient quantity.	
	All age groups	Deworn	ning		Give Piperazine liquid @ 10-15ml orally once only.	
Cattle	excepts the	B.Q./ H.	.S/FMD		If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia Foot & Mouth Disease, etc.	
	young ones	Ectopara	asites		tox@ 2ml/lit of water at forth nightly interval.	
		Fodder o	cultivation	Fodo	der crops should be irrigated every 20-30 days and 20-22 days for oat cultivation.	
Fishery: Type of Farming						
	Harvesting and				ocking of fish for next year may be done in ponds having 1.5m water depth @ 100/ ha.	
Carp/ Catfish culture	stock				eds should be provided @ 3 % body weight per day.	
	maintenance				eds should be provided & 5 % body weight per day.	

- 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 24th 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 25th to 29th January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (20th to 23rd January, 2017)

Observed mainly clear sky but shallow foggy at foothills during morning hours and no rainfall in past four days. Maximum temperature range of 24.1 to 24.3 $^{\circ}$ C and rise in minimum temperature range of 3.2 to 5.0 $^{\circ}$ C with mean relative humidity 92.8 % max and 39.0 % min was recorded in the past four days. The average wind speed range remained 2.1 to 2.9 km/hr.

Weather forecast for next five days of Chandel (25th to 29th January, 2017)

Likely to have no rain upto Sunday. Shallow to moderate fog during morning hours of next two days and mainly clear sky during day time with maximum temp. $23-25\,^{\circ}\,\text{C}$ & minimum temp. 4- $6\,^{\circ}\,\text{C}$. Relative humidity may reach up to 94 % (max RH) & 34 % (min RH). The average wind speed may be 3-5 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		L	J
Potato	Vegetative to flowering	Cut worm	 Give light irrigation to keep soil moist. 40-45 days old plants need light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam. If cut-worm is observed then prepare poison bait of Trichlorfon (mixture of 1kg
		Late Blight	 husk + 40g sugar + 5g Trichlorfon + water) and apply manually by putting near the stem of plant above the soil surface. - As a prophylactic measure against late blight, spray Metalaxyl based fungicide,
		Late Bright	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 is dry. Four bee boxes may be kept for one hectare crop area. Avoid spray of
		White rust Aphid	insecticides in such area. - Spray Dithane M-45 @ 2g/ litre of water at 10 days interval. - Use yellow plates for every 3 sq.m to attract the aphids or spray Pyrethrum @
		Hairy caterpillar	2ml/ litre of water on the infected patches. - Spray Quinalphos or Chloropyriphos @ 2ml/litre of water on the infected patches only.
	Vegetative to flowering and		- Give light irrigation to pea and lentil just to keep soil moist during vegetative stage.
	fruiting	Rust or Powdery mildew Aphid	- Spray Propiconazole @ 15ml/ 15 litre water. - Spray Imidachloprid 17.8 SL @ 7-10ml/ 15 litre of water against aphid.
Rabi maize	Sowing to vegetative	Apmu	- 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 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -
Banana		Sigatoka Leaf Spot	- If Sigatoka Leaf Spot disease is observed then spray Calixin @ 1 ml/ lit of water.
			- 200g Urea, 300g SSP and 500g MOP should be applied in three split doses at two, six and eight months after planting.
Mango	Flowering		 - Flower during 1st year of planting may be removed as it may suppress its corresponding growth that is essential in building up the young trees. - To protect from mango hopper, spray 800ml Malathion 50 EC or 700ml of Thiodan in 250 litres of water. - To protect from Mango fruit fly, Methyl Euginol trap 0.1% may be used @ 10 traps per hectare. - Paint the trunk of tree with Bordeaux paste (1:1:100) upto a height of 4-
			5 feet above the ground as prophylactic measure against diseases.



Manipur Centre, Lamphelpat, Imphal - 795 004



"Gramin Krishi Mausam Seva"



				-,			
Citrus		After harves			dea	nove water sprouts (tender green shoots emerged from main stem), dried and d branches after harvesting of fruits. Paste the cut ends with Bordeaux paste.	
Cucurbits	N	Nursery raising		pol	repare for raising nursery of cucurbits in poly-pouch and trays under low cost y-house or naturally ventilated polyhouse. and preparation for transplanting may be started.		
French bean an Bhindi	nd I	Land Prepar	ation			nd preparation for sowing may be started.	
Rabi Vegetable	e V	Vegetative to	0		- If	there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @	
(cole crops)		nead formati				1/ 10 lit of water.	
Tomato	1	Vegetative			- Li	ight watering may be done to maintain soil moisture.	
Garden pea/ Bro		Vegetative to	0			ight watering may be done to maintain soil moisture.	
bean		lowering			- Ea	arthing up and top dressing with 20kg urea per ha followed by watering may advised to the farmers.	
				powdery mildev	- S	pray Bayleton @ 7 g/ 10 litres of water against powdery mildew and yellow	
				and yellow rust	rust	t especially to the crops grown in moist/ shady area.	
Onion	\	Vegetative			- 30	ive light irrigation if the soil is dry. O to 45 days old transplanted onion should be top dressed with 20-25 kg urea/gam depending upon the fertility.	
Cauliflower		Vegetative to				ight watering may be done to maintain soil moisture.	
	h	nead formati	ion	Plutella, Daimo		ay Dichlorovos 76 EC @ 1ml/ lit of water may be sprayed at 7 days interval	
				Black Moth		ending upon the severity of the infestation.	
Coriander	1	Vegetative				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	/	Vegetative			- L1	ight watering may be done to maintain soil moisture.	
Animal Science							
Name of the anim							
Poultry (Chicken/ Turkey/ Duck)	All a	Ranikhet disease			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. 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).		
Sheep/ Goat	All a	ige groups	Dewo	orming	➤ Use .	Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with the dose at regular interval of 3 weeks.	
•	exce	pts the	Mana	gement	- Avoid k	reeping animals in a damp area; provide warmth to prevent from pneumonia.	
	All a	ige groups		orming	De-worming of animals should be done using Abendazole/ Levamisole @7 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.		
Pig		pt the	Care a	and management		eral mixture be added in feed @10-20 g/adult animal.	
	youn	ig ones			Treat drinking water with potassium permanganate/ sanitizer.		
			M	: £+:	Provide ample ventilation in the shed/dry bedding. Avoid dampness in sheds		
				infestation		y with Skin Heal Spray in sufficient quantity.	
Cottle	All a	ge groups	Dewo	rining	> Give	Piperazine liquid @ 10-15ml orally once only.	
Cattle		pts the	RO/	H.S/FMD	If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia Foot & Mouth Disease, etc.		
	voun	ig ones		arasites		2 2ml/lit of water at forth nightly interval.	
) 0 411			er cultivation		rops should be irrigated every 20-30 days and 20-22 days for oat cultivation.	
	Journ			or cultivation	1 Odder er	tops should be infigured every 20 30 days and 20 22 days for our cultivation.	
Fishery: Type of Farming			1000				
Fishery: Type of Farming			7 0 0 0 0		- Stockin	g of fish for next year may be done in ponds having 1.5m water depth @	
	Harves	sting and	7 0 0 0 0		10,000/ h	a.	
Type of Farming		sting and	1 3 4 5		10,000/ h - Feeds sl	a. hould be provided @ 3 % body weight per day.	
Type of Farming Carp/ Catfish	Harves	_	1 3 4 4		10,000/ h - Feeds sl - Well ba	a.	



Manipur Centre, Lamphelpat, Imphal - 795 004





MANIPUR BULLETIN 24th January, 2017

Churachanpur

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 25th to 29th January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (20^{th} to 23^{rd} January, 2017)

Observed mainly clear sky but shallow foggy at foothills during morning hours and no rainfall in past four days. Maximum temperature range of 24.1 to 24.3 $^{\circ}$ C and rise in minimum temperature range of 3.2 to 5.0 $^{\circ}$ C with mean relative humidity 92.8 % max and 39.0 % min was recorded in the past four days. The average wind speed range remained 2.1 to 2.9 km/hr.

Weather forecast for next five days of Churachandpur $(25^{th}$ to 29^{th} January, 2017)

Likely to have no rain upto Sunday. Shallow to moderate fog during morning hours of next two days and mainly clear sky during day time with maximum temp. $23-25\,^{\circ}\mathrm{C}$ & minimum temp. 4- $6\,^{\circ}\mathrm{C}$. Relative humidity may reach up to 91 % (max RH) & 29 % (min RH). The average wind speed may be 3-5 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	-		1
Potato	Vegetative to flowering		 Give light irrigation to keep soil moist. 40-45 days old plants need 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 is dry.
			- Four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
		White rust	- Spray Dithane M-45 @ 2g/ litre of water at 10 days interval.
		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 fruiting		stage.
		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		- Sowing of rabi maize may be done.
	vegetative		- Irrigate field, if the soil is dry.
Seeds storage	Post harvest		- For seed purpose dry, clean and store the seeds in RC-seed bins after proper
	management		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
II			1% in godowns.
Horticulture Crops		Sigatoka Leaf Spot	- If Sigatoka Leaf Spot disease is observed then spray Calixin @ 1 ml/ lit of
Banana		Sigatoka Lear Spot	water.
			- 200g Urea, 300g SSP and 500g MOP should be applied in three split doses at two, six and eight months after planting.
Mango	Flowering		 Flower during 1st year of planting may be removed as it may suppress its corresponding growth that is essential in building up the young trees. To protect from mango hopper, spray 800ml Malathion 50 EC or 700ml of Thiodan in 250 litres of water. To protect from Mango fruit fly, Methyl Euginol trap 0.1% may be used @ 10 traps per hectare.
			- Paint the trunk of tree with Bordeaux paste (1:1:100) upto a height of 4-5 feet above the ground as prophylactic measure against diseases.







Citrus		After harves				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 an Bhindi	nd	Land Preparation				Land preparation for sowing may be started.		
Rabi Vegetable	e	Vegetative to	0			- If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @		
(cole crops)		head formati				2ml/ 10 lit of water.		
Tomato		Vegetative				- Light watering may be done to maintain soil moisture.		
Garden pea/ Bro bean		Vegetative to flowering	0			 - 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	V	- 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 to head formati		Plutella, Daimor	nd	- 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		Black Moth		 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	(3)	Vegetative				- Light watering may be done to maintain soil moisture.		
Animal Science				4		,		
Name of the anir								
Poultry (Chicken/ Turkey/ Duck)		age groups	Care d	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.		
•			Ranik	Ranikhet disease		-1 Strain may be first administered within 7 days of age and second dose may be an at 30days for all birds. 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).		
Sheep/ Goat		age groups		rming	>	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.		
		epts the ng ones		gement		oid keeping animals in a damp area; provide warmth to prevent from pneumonia.		
		age groups		orming		De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.		
Pig		ept the ng ones	Care a	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		
			Mites	infestation		Spray with Skin Heal Spray in sufficient quantity.		
			Dewo			Give Piperazine liquid @ 10-15ml orally once only.		
Cattle		age groups	22,10			If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia,		
-		epts the	B.Q./	H.S/FMD		Foot & Mouth Disease, etc.		
	you	ng ones		arasites		atox@ 2ml/lit of water at forth nightly interval.		
				er cultivation		der crops should be irrigated every 20-30 days and 20-22 days for oat cultivation.		
Fishery: Type of Farming								
Carp/ Catfish	Harve	esting and			10,0	ocking of fish for next year may be done in ponds having 1.5m water depth @ 000/ ha.		
culture	stock	-			- W	eds should be provided @ 3 % body weight per day. ell balanced feed fortified with vitamins and minerals should be provided. oply Lime @ 30-35 kg/ha at 30days interval.		



Manipur Centre, Lamphelpat, Imphal - 795 004





MANIPUR BULLETIN 24th 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 25th to 29th January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (20^{th} to 23^{rd} January, 2017)

Observed mainly clear sky but shallow foggy at foothills during morning hours and no rainfall in past four days. Maximum temperature range of 24.1 to 24.3 $^{\circ}$ C and rise in minimum temperature range of 3.2 to 5.0 $^{\circ}$ C with mean relative humidity 92.8 % max and 39.0 % min was recorded in the past four days. The average wind speed range remained 2.1 to 2.9 km/hr.

Weather forecast for next five days of Senapati (25th to 29th January, 2017)

Likely to have no rain upto Sunday. Shallow to moderate fog during morning hours of next two days and mainly clear sky during day time with maximum temp. 19 – 21 $^{\circ}$ C & minimum temp. 2 - 4 $^{\circ}$ C. Relative humidity may reach up to 99 % (max RH) & 24 % (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	1	L	J
Potato	Vegetative to flowering		 Give light irrigation to keep soil moist. 40-45 days old plants need 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 is dry.
			- Four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
		White rust	- Spray Dithane M-45 @ 2g/ litre of water at 10 days interval.
		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			170 III gouovius.
Banana		Sigatoka Leaf Spot	- If Sigatoka Leaf Spot disease is observed then spray Calixin @ 1 ml/ lit of water.
			- 200g Urea, 300g SSP and 500g MOP should be applied in three split doses at two, six and eight months after planting.
Mango	Flowering		 Flower during 1st year of planting may be removed as it may suppress its corresponding growth that is essential in building up the young trees. To protect from mango hopper, spray 800ml Malathion 50 EC or 700ml of Thiodan in 250 litres of water. To protect from Mango fruit fly, Methyl Euginol trap 0.1% may be used @ 10 traps per hectare. Paint the trunk of tree with Bordeaux paste (1:1:100) upto a height of 4-5 feet above the ground as prophylactic measure against diseases.







After harves	er 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.	
Nursery rais	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.	
Vegetative t	to		- If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @	
head formati	ion		2ml/10 lit of water.	
			- Light watering may be done to maintain soil moisture.	
ad Vegetative to flowering	to		 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		
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. 	
Vegetative t	to		- Light watering may be done to maintain soil moisture.	
	ion	Plutella, Daimo Black Moth	depending upon the severity of the infestation.	
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. 	
) Vegetative			- Light watering may be done to maintain soil moisture.	
S		·		
nal				
All age groups	Care &	k 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		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).	
	Doworming		3. Killed 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	
All age groups	Deworming		half the dose at regular interval of 3 weeks.	
excepts the	Manag	gement	- Avoid keeping animals in a damp area; provide warmth to prevent from pneumonia.	
	De-wo	orming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.	
	Care and management		➤ Mineral mixture be added in feed @10-20 g/adult animal.	
young ones			Treat drinking water with potassium permanganate/ sanitizer.	
			Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds	
	Mites infestation		Spray with Skin Heal Spray in sufficient quantity.	
All age groups	Deworming		Give Piperazine liquid @ 10-15ml orally once only.	
	DO / HO/END		Fig. 18 May 18 Bit States and Sta	
young ones			Foot & Mouth Disease, etc. - Butox@ 2ml/lit of water at forth nightly interval.	
			Fodder crops should be irrigated every 20-30 days and 20-22 days for oat cultivation.	
	1 odde	- caravadon	1 odder crops should be firigated every 20-30 days and 20-22 days for out cultivation.	
Harvesting and			- Stocking of fish for next year may be done in ponds having 1.5m water depth @ 10,000/ ha.	
stock			- Feeds should be provided @ 3 % body weight per day.	
)	Nursery rais Nursery rais Nursery rais Vegetative head format Vegetative head format	Vegetative to head formation Vegetative Vegetative Vegetative Vegetative Vegetative Vegetative Vegetative Vegetative All age groups excepts the young ones All age groups except the young ones	Nursery raising Nursery raising Nursery raising	



Manipur Centre, Lamphelpat, Imphal - 795 004

"Gramin Krishi Mausam Seva"



MANIPUR BULLETIN 24th 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 25th to 29th January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (20^{th} to 23^{rd} January, 2017)

Observed mainly clear sky but shallow foggy at foothills during morning hours and no rainfall in past four days. Maximum temperature range of 24.1 to 24.3 $^{\circ}$ C and rise in minimum temperature range of 3.2 to 5.0 $^{\circ}$ C with mean relative humidity 92.8 % max and 39.0 % min was recorded in the past four days. The average wind speed range remained 2.1 to 2.9 km/hr.

Weather forecast for next five days of Tamenglong (25th to 29th January, 2017)

Likely to have no rain upto Sunday. Shallow to moderate fog during morning hours of next two days and mainly clear sky during day time with maximum temp. $24-26\,^{\circ}$ C & minimum temp. $5-7\,^{\circ}$ C. Relative humidity may reach up to 99 % (max RH) & 24 % (min RH). The average wind speed may be 2-5 km/hr. Wind direction may be North easterly during next five days but South Easterly on 28^{th} Jan, 2017.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			1
Potato	Vegetative to flowering		 Give light irrigation to keep soil moist. 40-45 days old plants need 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 is dry.
			- Four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
		White rust	- Spray Dithane M-45 @ 2g/ litre of water at 10 days interval.
		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 fruiting		stage.
		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		- Sowing of rabi maize may be done.
	vegetative		- Irrigate field, if the soil is dry.
Seeds storage	Post harvest		- For seed purpose dry, clean and store the seeds in RC-seed bins after proper
	management		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
TI d'alla Cara			1% in godowns.
Horticulture Crops		C:4-1 I C4	If Circle I and Count discount is about a debug area. Califolia (2.1 and / literal
Banana		Sigatoka Leaf Spot	- If Sigatoka Leaf Spot disease is observed then spray Calixin @ 1 ml/ lit of water.
			- 200g Urea, 300g SSP and 500g MOP should be applied in three split doses at two, six and eight months after planting.
Mango	Flowering		 - Flower during 1st year of planting may be removed as it may suppress its corresponding growth that is essential in building up the young trees. - To protect from mango hopper, spray 800ml Malathion 50 EC or 700ml of Thiodan in 250 litres of water. - To protect from Mango fruit fly, Methyl Euginol trap 0.1% may be used @ 10 traps per hectare. - Paint the trunk of tree with Bordeaux paste (1:1:100) upto a height of 4-
			5 feet above the ground as prophylactic measure against diseases.







Citrus		ter 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	Nurs	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		ration			Land preparation for sowing may be started.		
Rabi Vegetable	Vege	Vegetative to				- If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @	
(cole crops)		format	ion	1		2ml/ 10 lit of water.	
Tomato		etative				- Light watering may be done to maintain soil moisture.	
		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 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	Vege	etative		and yenow fust		 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	Vege	etative t	to			- 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	Vege	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) Vege	etative		_		- Light watering may be done to maintain soil moisture.	
Animal Science	/						
Name of the anir							
Poultry (Chicken/ Turkey/ Duck)	All age g	All age groups Care		& management	Prop	ect from intense cold. Keep the shed wall covered with hessian cloth during night. For ventilation must be provided to protect from moisture inside the shed. Litter to be kept dry.	
Turkey/ Duck)				Ranikhet disease		1 Strain may be first administered within 7 days of age and second dose may be n at 30days for all birds.	
						₂ B vaccine of 8-9 weeks of age group birds (layers). illed ND virus vaccine of 16-18 weeks of age group birds (layers).	
			Down	orming	3. K	Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with	
Sheep/ Goat	All age g	All age groups excepts the young ones All age groups		Deworming		half the dose at regular interval of 3 weeks.	
элсер осыс	excepts t			Management		oid keeping animals in a damp area; provide warmth to prevent from pneumonia.	
				De-worming		De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.	
				Care and management		Mineral mixture be added in feed @10-20 g/adult animal.	
Pig	_					Treat drinking water with potassium permanganate/ sanitizer.	
						Provide ample ventilation in the shed/dry bedding. Avoid dampness in sheds	
		All age groups excepts the		Mites infestation		Spray with Skin Heal Spray in sufficient quantity.	
	All age o			Deworming		Give Piperazine liquid @ 10-15ml orally once only.	
Cattle				DO (HOEND		If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia,	
	young ones		B.Q./ H.S/FMD Ectoparasites			Foot & Mouth Disease, etc. - Butox@ 2ml/lit of water at forth nightly interval.	
			Fodder cultivation			Fodder crops should be irrigated every 20-30 days and 20-22 days for oat cultivation.	
Fishery: Type of Farming			1 Judi	CI CUITITUUII			
Carp/ Catfish	_	Harvesting and			10,0	ocking of fish for next year may be done in ponds having 1.5m water depth @ 00/ ha.	
culture stock maintenance		ce		 Feeds should be provided @ 3 % body weight per day. 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 24th 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 25th to 29th January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West $(20^{th}\ to\ 23^{rd}\ January,2017)$

Observed mainly clear sky but shallow foggy at foothills during morning hours and no rainfall in past four days. Maximum temperature range of 24.1 to 24.3 $^{\circ}$ C and rise in minimum temperature range of 3.2 to 5.0 $^{\circ}$ C with mean relative humidity 92.8 % max and 39.0 % min was recorded in the past four days. The average wind speed range remained 2.1 to 2.9 km/hr.

Weather forecast for next five days of Thoubal (25th to 29th January, 2017)

Likely to have no rain upto Sunday. Shallow to moderate fog during morning hours of next two days and mainly clear sky during day time with maximum temp. $24-25\,^{\circ}$ C & minimum temp. $4-6\,^{\circ}$ C. Relative humidity may reach up to 96 % (max RH) & 29 % (min RH). The average wind speed may be 2-6 km/hr. Wind direction may be South easterly during next five days but Westerly on 28^{th} Jan, 2017.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			J
Potato	Vegetative to flowering	Cut worm	 Give light irrigation to keep soil moist. 40-45 days old plants need light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam. If cut-worm is observed then prepare poison bait of Trichlorfon (mixture of 1kg
		Late Blight	 husk + 40g sugar + 5g Trichlorfon + water) and apply manually by putting near the stem of plant above the soil surface. - 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 is dry. Four bee boxes may be kept for one hectare crop area. Avoid spray of
			insecticides in such area.
		White rust	- Spray Dithane M-45 @ 2g/ litre of water at 10 days interval.
		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 Urea, 300g SSP and 500g MOP should be applied in three split doses at two, six and eight months after planting.
Mango	Flowering		 Flower during 1st year of planting may be removed as it may suppress its corresponding growth that is essential in building up the young trees. To protect from mango hopper, spray 800ml Malathion 50 EC or 700ml of Thiodan in 250 litres of water. To protect from Mango fruit fly, Methyl Euginol trap 0.1% may be used @ 10 traps per hectare. Paint the trunk of tree with Bordeaux paste (1:1:100) upto a height of 4-
			5 feet above the ground as prophylactic measure against diseases.







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		ation			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 formati				2ml/ 10 lit of water.		
Tomato		Vegetative				- Light watering may be done to maintain soil moisture.		
Garden pea/ Bro		Vegetative to	0			- 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 to	0			- Light watering may be done to maintain soil moisture.		
		head formati		Plutella, Daimond Black Moth		Spray Dichlorovos 76 EC @ 1ml/ lit of water may be sprayed at 7 days interval depending upon the severity of the infestation.		
Coriander Vegetative		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 Science	'S							
Name of the anin	nal							
Poultry All age groups (Chicken/ Turkey/ Duck)		age groups	Care & management		Prop	tect from intense cold. Keep the shed wall covered with hessian cloth during night. per ventilation must be provided to protect from moisture inside the shed. Litter at be kept dry.		
•		All age groups excepts the young ones Dewo		Ranikhet disease 1. gi 2. 3. Deworming Management - A		-1 Strain may be first administered within 7 days of age and second dose may be en at 30days for all birds.		
						¹ ₂ B vaccine of 8-9 weeks of age group birds (layers).		
						Cilled 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	A 11					half the dose at regular interval of 3 weeks.		
Sheep/ Goat	exce					void keeping animals in a damp area; provide warmth to prevent from pneumonia.		
						De-worming of animals should be done using Abendazole/ Levamisole @7.5		
	All	All age groups except the young ones		Care and management		mg/kg b.wt. or Ivermectin @50mg/kg b. wt.		
Pig	exce					Mineral mixture be added in feed @ 10-20 g/adult animal.		
1 ig	you					Treat drinking water with potassium permanganate/ sanitizer.		
						Provide ample ventilation in the shed/dry bedding. Avoid dampness in sheds		
		All age groups excepts the young ones		Mites infestation		Spray with Skin Heal Spray in sufficient quantity.		
Cattle	All			Deworming		Give Piperazine liquid @ 10-15ml orally once only.		
	exce			B.Q./ H.S/FMD		If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc.		
	you			Ectoparasites		ntox@ 2ml/lit of water at forth nightly interval.		
				Fodder cultivation		der crops should be irrigated every 20-30 days and 20-22 days for oat cultivation.		
Fishery: Type of Farming								
Carp/ Catfish	Harvo	sting and				ocking of fish for next year may be done in ponds having 1.5m water depth @ 000/ ha.		
culture	stock	Harvesting and stock maintenance			- Fe	eds should be provided @ 3 % body weight per day. ell balanced feed fortified with vitamins and minerals should be provided.		
						oply Lime @ 30-35 kg/ha at 30days interval.		