



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



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 (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 °C and rise in minimum temperature range of 3.2 to 5.0 °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 °C & minimum temp. 2 - 4 °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			
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/ 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 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 management		- For seed purpose dry, clean and store the seeds in RC-seed bins 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 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 1 st 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 Eugenol 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.



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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.
Garden pea/ Broad 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 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 head formation		- Light watering may be done to maintain soil moisture.
		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		- 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 animal

Poultry (Chicken/ Turkey/ Duck)	All age groups	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	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 age groups excepts the young ones	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.
		Management	- Avoid keeping animals in a damp area; provide warmth to prevent from pneumonia.
Pig	All age groups except the young ones	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. ➤ Treat drinking water with potassium permanganate/ sanitizer. ➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
Cattle	All age groups excepts the young ones	Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
		B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc.
		Ectoparasites	- 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

Carp/ Catfish culture	Harvesting and stock maintenance		- 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. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Lime @ 30-35 kg/ha at 30days interval.
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(I. Meghachandra Singh)
Scientist i/c, GKMS



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MANIPUR BULLETIN

24th 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 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 °C and rise in minimum temperature range of 3.2 to 5.0 °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 °C & minimum temp. 5 - 6 °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 28th Jan, 2017.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
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/ 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 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 management		- For seed purpose dry, clean and store the seeds in RC-seed bins 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 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 1 st 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.



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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.
Garden pea/ Broad 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 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 head formation		- Light watering may be done to maintain soil moisture.
		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		- 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 animal

Poultry (Chicken/ Turkey/ Duck)	All age groups	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	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 age groups excepts the young ones	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.
		Management	- Avoid keeping animals in a damp area; provide warmth to prevent from pneumonia.
Pig	All age groups except the young ones	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. ➤ Treat drinking water with potassium permanganate/ sanitizer. ➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
Cattle	All age groups excepts the young ones	Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
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		Ectoparasites	- 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

Carp/ Catfish culture	Harvesting and stock maintenance		- 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. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Lime @ 30-35 kg/ha at 30days interval.
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Weather forecast for next five days of Imphal West (25th to 29th January, 2017)

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Fishery:

Type of Farming

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

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

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		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 RC-seed bins 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 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 1 st 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 Eugenol 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.

**ICAR Research Complex for N.E.H. Region**

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”

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.
Garden pea/ Broad 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 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 head formation		- Light watering may be done to maintain soil moisture.
		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		- 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 animal**

Poultry (Chicken/ Turkey/ Duck)	All age groups	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	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 age groups excepts the young ones	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.
		Management	- Avoid keeping animals in a damp area; provide warmth to prevent from pneumonia.
Pig	All age groups except the young ones	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. ➤ Treat drinking water with potassium permanganate/ sanitizer. ➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
Cattle	All age groups excepts the young ones	Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
		B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc.
		Ectoparasites	- 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**

Carp/ Catfish culture	Harvesting and stock maintenance		- 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. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Lime @ 30-35 kg/ha at 30days interval.
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(I. Meghachandra Singh)
Scientist i/c, GKMS



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



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 °C and rise in minimum temperature range of 3.2 to 5.0 °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 °C & minimum temp. 4 - 6 °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			
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/ 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 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 management		- For seed purpose dry, clean and store the seeds in RC-seed bins 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 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 1 st 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 Eugenol 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.



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



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.
Garden pea/ Broad 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 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 head formation		- Light watering may be done to maintain soil moisture.
		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		- 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 animal

Poultry (Chicken/ Turkey/ Duck)	All age groups	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	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 age groups excepts the young ones	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.
		Management	- Avoid keeping animals in a damp area; provide warmth to prevent from pneumonia.
Pig	All age groups except the young ones	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. ➤ Treat drinking water with potassium permanganate/ sanitizer. ➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
Cattle	All age groups excepts the young ones	Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
		B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc.
		Ectoparasites	- 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

Carp/ Catfish culture	Harvesting and stock maintenance		- 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. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Lime @ 30-35 kg/ha at 30days interval.
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(I. Meghachandra Singh)
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ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”



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 (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 °C and rise in minimum temperature range of 3.2 to 5.0 °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 (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 °C & minimum temp. 4 - 6 °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			
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/ 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 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 management		- For seed purpose dry, clean and store the seeds in RC-seed bins 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 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 1 st 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 Eugenol 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.



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



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.
Garden pea/ Broad 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 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 head formation		- Light watering may be done to maintain soil moisture.
		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		- 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 animal

Poultry (Chicken/ Turkey/ Duck)	All age groups	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	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 age groups excepts the young ones	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.
		Management	- Avoid keeping animals in a damp area; provide warmth to prevent from pneumonia.
Pig	All age groups except the young ones	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. ➤ Treat drinking water with potassium permanganate/ sanitizer. ➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
Cattle	All age groups excepts the young ones	Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
		B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc.
		Ectoparasites	- 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

Carp/ Catfish culture	Harvesting and stock maintenance		- 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. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Lime @ 30-35 kg/ha at 30days interval.
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(I. Meghachandra Singh)
Scientist i/c, GKMS



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



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 (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 °C and rise in minimum temperature range of 3.2 to 5.0 °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 °C & minimum temp. 2 - 4 °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			
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/ 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 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 management		- For seed purpose dry, clean and store the seeds in RC-seed bins 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 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 1 st 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 Eugenol 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.

**ICAR Research Complex for N.E.H. Region**

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”

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.
Garden pea/ Broad 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 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 head formation		- Light watering may be done to maintain soil moisture.
		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		- 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 animal**

Poultry (Chicken/ Turkey/ Duck)	All age groups	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	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 age groups excepts the young ones	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.
		Management	- Avoid keeping animals in a damp area; provide warmth to prevent from pneumonia.
Pig	All age groups except the young ones	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. ➤ Treat drinking water with potassium permanganate/ sanitizer. ➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
Cattle	All age groups excepts the young ones	Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
		B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc.
		Ectoparasites	- 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**

Carp/ Catfish culture	Harvesting and stock maintenance		- 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. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Lime @ 30-35 kg/ha at 30days interval.
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(I. Meghachandra Singh)
Scientist i/c, GKMS



ICAR Research Complex for N.E.H. Region
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 (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 °C and rise in minimum temperature range of 3.2 to 5.0 °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 °C & minimum temp. 5 - 7 °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 28th Jan, 2017.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
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/ 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 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 management		- For seed purpose dry, clean and store the seeds in RC-seed bins 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 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 1 st 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 Eugenol 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.

**ICAR Research Complex for N.E.H. Region**

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”

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.
Garden pea/ Broad 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 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 head formation		- Light watering may be done to maintain soil moisture.
		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		- 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 animal**

Poultry (Chicken/ Turkey/ Duck)	All age groups	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	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 age groups excepts the young ones	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.
		Management	- Avoid keeping animals in a damp area; provide warmth to prevent from pneumonia.
Pig	All age groups except the young ones	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. ➤ Treat drinking water with potassium permanganate/ sanitizer. ➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
Cattle	All age groups excepts the young ones	Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
		B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc.
		Ectoparasites	- 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**

Carp/ Catfish culture	Harvesting and stock maintenance		- 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. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Lime @ 30-35 kg/ha at 30days interval.
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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 (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 °C and rise in minimum temperature range of 3.2 to 5.0 °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 °C & minimum temp. 4 - 6 °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 28th Jan, 2017.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
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/ 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 fruiting		- Give light irrigation to pea and lentil just to keep soil moist during vegetative stage.
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Seeds storage	Post harvest management		- For seed purpose dry, clean and store the seeds in RC-seed bins 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 .
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**ICAR Research Complex for N.E.H. Region**

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“Gramin Krishi Mausam Seva”

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Fishery:**Type of Farming**

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