



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



MANIPUR BULLETIN

17th 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 18th to 22nd January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (13th to 16th January, 2017)

Observed mainly clear sky but foggy at foothills during morning hours of 13th and 14th Jan, 2017 and no rainfall in past four days. Maximum temperature range of 21.2 to 22.2 °C and minimum temperature range of 4.2 to 4.4 °C with mean relative humidity 87.8 % max and 44.0 % min was recorded in the past four days. The average wind speed range remained 2.4 to 2.9 km/hr.

Weather forecast for next five days of Bishnupur (18th to 22nd January, 2017)

Likely to have no rain upto Sunday. Mainly clear sky with maximum temp. 21 – 23 °C & minimum temp. 3 – 5 °C. Relative humidity may reach up to 97 % (max RH) & 30 % (min RH). The average wind speed may be 4-6 km/hr. Wind direction may be North Easterly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Potato	Vegetative to flowering		- Keep soil moist for good growth. - If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.
		Cut worm	If cut-worm is observed then prepare poison bait of Trichlorfon (mixture of 1kg husk + 40g sugar + 5g Trichlorfon + water) and apply manually by putting near the stem of plant above the soil surface.
		Late Blight	- As a prophylactic measure against late blight, spray Metalaxyl based fungicide, like Redomil MZ-72 WP @ 2 gm/lit alternately with Mencozeb @ 2gm/lit of water at 14 days interval for 2-3 times.
Rapeseed/ Mustard	Vegetative to flowering		- Regular monitoring of moisture of soil may be done to ensure good growth. Irrigation may be given if the soil moisture have decline. - If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
		Aphid	- Use yellow plates for every 3 sq.m to attract the aphids or spray Pyrethrum @ 2ml/ litre of water on the infected patches.
		Hairy caterpillar	- Spray Quinalphos or Chloropyrifos @ 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, 300g and 500g Urea, SSP and MOP respectively should be applied in three split doses at two, six and eight months after planting.
Citrus	After harvesting		Remove water sprouts (tender green shoots emerged from main stem), dried and dead branches after harvesting of fruits. Paste the cut ends with Bordeaux paste.
Cucurbits	Nursery raising		- Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost poly-house or naturally ventilated polyhouse.
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. Spray Imidachloprid 17.8SL @5ml/10 litres of water on 20days old seedlings as prophylactic spray.



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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.
		Vaccination	Vaccinate against sheep/ goat pox and Enterotoxaemia.
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.
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.

(I. Meghachandra Singh)
 Scientist i/c, GKMS



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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 18th to 22nd January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (13th to 16th January, 2017)

Observed mainly clear sky but foggy at foothills during morning hours of 13th and 14th Jan, 2017 and no rainfall in past four days. Maximum temperature range of 21.2 to 22.2 °C and minimum temperature range of 4.2 to 4.4 °C with mean relative humidity 87.8 % max and 44.0 % min was recorded in the past four days. The average wind speed range remained 2.4 to 2.9 km/hr.

Weather forecast for next five days of Chandel (18th to 22nd January, 2017)

Likely to have no rain upto Sunday. Mainly clear sky with maximum temp. 20 – 22 °C & minimum temp. 2 - 4 °C. Relative humidity may reach up to 94 % (max RH) & 36 % (min RH). The average wind speed may be 3-5 km/hr. Wind direction may be North Easterly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Potato	Vegetative to flowering		- Keep soil moist for good growth. - If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.
		Cut worm	If cut-worm is observed then prepare poison bait of Trichlorfon (mixture of 1kg husk + 40g sugar + 5g Trichlorfon + water) and apply manually by putting near the stem of plant above the soil surface.
		Late Blight	- As a prophylactic measure against late blight, spray Metalaxyl based fungicide, like Redomil MZ-72 WP @ 2 gm/lit alternately with Mencozeb @ 2gm/lit of water at 14 days interval for 2-3 times.
Rapeseed/ Mustard	Vegetative to flowering		- Regular monitoring of moisture of soil may be done to ensure good growth. Irrigation may be given if the soil moisture have decline. - If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
		Aphid	- Use yellow plates for every 3 sq.m to attract the aphids or spray Pyrethrum @ 2ml/ litre of water on the infected patches.
		Hairy caterpillar	- Spray Quinalphos or Chloropyrifos @ 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, 300g and 500g Urea, SSP and MOP respectively should be applied in three split doses at two, six and eight months after planting.
Citrus	After harvesting		Remove water sprouts (tender green shoots emerged from main stem), dried and dead branches after harvesting of fruits. Paste the cut ends with Bordeaux paste.
Cucurbits	Nursery raising		- Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost poly-house or naturally ventilated polyhouse.
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. Spray Imidachloprid 17.8SL @5ml/10 litres of water on 20days old seedlings as prophylactic spray.



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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.
		Vaccination	Vaccinate against sheep/ goat pox and Enterotoxaemia.
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.
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 Churachandpur (18th to 22nd January, 2017)

Likely to have no rain upto Sunday. Mainly clear sky with maximum temp. 21 – 23 °C & minimum temp. 3 - 4 °C. Relative humidity may reach up to 98 % (max RH) & 29 % (min RH). The average wind speed may be 4 km/hr. Wind direction may be South Easterly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Potato	Vegetative to flowering		- Keep soil moist for good growth. - If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.
		Cut worm	If cut-worm is observed then prepare poison bait of Trichlorfon (mixture of 1kg husk + 40g sugar + 5g Trichlorfon + water) and apply manually by putting near the stem of plant above the soil surface.
		Late Blight	- As a prophylactic measure against late blight, spray Metalaxyl based fungicide, like Redomil MZ-72 WP @ 2 gm/lit alternately with Mencozeb @ 2gm/lit of water at 14 days interval for 2-3 times.
Rapeseed/ Mustard	Vegetative to flowering		- Regular monitoring of moisture of soil may be done to ensure good growth. Irrigation may be given if the soil moisture have decline. - If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
		Aphid	- Use yellow plates for every 3 sq.m to attract the aphids or spray Pyrethrum @ 2ml/ litre of water on the infected patches.
		Hairy caterpillar	- Spray Quinalphos or Chloropyriphos @ 2ml/litre of water on the infected patches only.
Pulses	Vegetative to flowering and 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, 300g and 500g Urea, SSP and MOP respectively should be applied in three split doses at two, six and eight months after planting.
Citrus	After harvesting		Remove water sprouts (tender green shoots emerged from main stem), dried and dead branches after harvesting of fruits. Paste the cut ends with Bordeaux paste.
Cucurbits	Nursery raising		- Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost poly-house or naturally ventilated polyhouse.
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. Spray Imidachloprid 17.8SL @5ml/10 litres of water on 20days old seedlings as prophylactic spray.



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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.
		Vaccination	Vaccinate against sheep/ goat pox and Enterotoxaemia.
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.
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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 Scientist i/c, GKMS



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Weather forecast for next five days of Senapati (18th to 22nd January, 2017)

Likely to have no rain upto Sunday. Mainly clear sky with maximum temp. 17 – 19 °C & minimum temp. 1 - 3 °C. Relative humidity may reach up to 95 % (max RH) & 25 % (min RH). The average wind speed may be 4 km/hr. Wind direction may be South Easterly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Potato	Vegetative to flowering		- Keep soil moist for good growth. - If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.
		Cut worm	If cut-worm is observed then prepare poison bait of Trichlorfon (mixture of 1kg husk + 40g sugar + 5g Trichlorfon + water) and apply manually by putting near the stem of plant above the soil surface.
		Late Blight	- As a prophylactic measure against late blight, spray Metalaxyl based fungicide, like Redomil MZ-72 WP @ 2 gm/lit alternately with Mencozeb @ 2gm/lit of water at 14 days interval for 2-3 times.
Rapeseed/ Mustard	Vegetative to flowering		- Regular monitoring of moisture of soil may be done to ensure good growth. Irrigation may be given if the soil moisture have decline. - If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
		Aphid	- Use yellow plates for every 3 sq.m to attract the aphids or spray Pyrethrum @ 2ml/ litre of water on the infected patches.
		Hairy caterpillar	- Spray Quinalphos or Chloropyrifos @ 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, 300g and 500g Urea, SSP and MOP respectively should be applied in three split doses at two, six and eight months after planting.
Citrus	After harvesting		Remove water sprouts (tender green shoots emerged from main stem), dried and dead branches after harvesting of fruits. Paste the cut ends with Bordeaux paste.
Cucurbits	Nursery raising		- Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost poly-house or naturally ventilated polyhouse.
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. Spray Imidachloprid 17.8SL @5ml/10 litres of water on 20days old seedlings as prophylactic spray.



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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.
		Vaccination	Vaccinate against sheep/ goat pox and Enterotoxaemia.
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.
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.

(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

17th 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 18th to 22nd January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (13th to 16th January, 2017)

Observed mainly clear sky but foggy at foothills during morning hours of 13th and 14th Jan, 2017 and no rainfall in past four days. Maximum temperature range of 21.2 to 22.2 °C and minimum temperature range of 4.2 to 4.4 °C with mean relative humidity 87.8 % max and 44.0 % min was recorded in the past four days. The average wind speed range remained 2.4 to 2.9 km/hr.

Weather forecast for next five days of Tamenglong (18th to 22nd January, 2017)

Likely to have no rain upto Sunday. Mainly clear sky with maximum temp. 21 – 23 °C & minimum temp. 3 - 4 °C. Relative humidity may reach up to 98 % (max RH) & 25 % (min RH). The average wind speed may be 4-5 km/hr. Wind direction may be North Easterly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Potato	Vegetative to flowering		- Keep soil moist for good growth. - If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.
		Cut worm	If cut-worm is observed then prepare poison bait of Trichlorfon (mixture of 1kg husk + 40g sugar + 5g Trichlorfon + water) and apply manually by putting near the stem of plant above the soil surface.
		Late Blight	- As a prophylactic measure against late blight, spray Metalaxyl based fungicide, like Redomil MZ-72 WP @ 2 gm/lit alternately with Mencozeb @ 2gm/lit of water at 14 days interval for 2-3 times.
Rapeseed/ Mustard	Vegetative to flowering		- Regular monitoring of moisture of soil may be done to ensure good growth. Irrigation may be given if the soil moisture have decline. - If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
		Aphid	- Use yellow plates for every 3 sq.m to attract the aphids or spray Pyrethrum @ 2ml/ litre of water on the infected patches.
		Hairy caterpillar	- Spray Quinalphos or Chloropyrifos @ 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, 300g and 500g Urea, SSP and MOP respectively should be applied in three split doses at two, six and eight months after planting.
Citrus	After harvesting		Remove water sprouts (tender green shoots emerged from main stem), dried and dead branches after harvesting of fruits. Paste the cut ends with Bordeaux paste.
Cucurbits	Nursery raising		- Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost poly-house or naturally ventilated polyhouse.
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. Spray Imidachloprid 17.8SL @5ml/10 litres of water on 20days old seedlings as prophylactic spray.



ICAR Research Complex for N.E.H. Region
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“Gramin Krishi Mausam Seva”



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.
		Vaccination	Vaccinate against sheep/ goat pox and Enterotoxaemia.
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.
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.

(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

17th 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 18th to 22nd January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (13th to 16th January, 2017)

Observed mainly clear sky but foggy at foothills during morning hours of 13th and 14th Jan, 2017 and no rainfall in past four days. Maximum temperature range of 21.2 to 22.2 °C and minimum temperature range of 4.2 to 4.4 °C with mean relative humidity 87.8 % max and 44.0 % min was recorded in the past four days. The average wind speed range remained 2.4 to 2.9 km/hr.

Weather forecast for next five days of Thoubal (18th to 22nd January, 2017)

Likely to have no rain upto Sunday. Mainly clear sky with maximum temp. 21 – 23 °C & minimum temp. 2 - 4 °C. Relative humidity may reach up to 98 % (max RH) & 32 % (min RH). The average wind speed may be 2-6 km/hr. Wind direction may be North Easterly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Potato	Vegetative to flowering		- Keep soil moist for good growth. - If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.
		Cut worm	If cut-worm is observed then prepare poison bait of Trichlorfon (mixture of 1kg husk + 40g sugar + 5g Trichlorfon + water) and apply manually by putting near the stem of plant above the soil surface.
		Late Blight	- As a prophylactic measure against late blight, spray Metalaxyl based fungicide, like Redomil MZ-72 WP @ 2 gm/lit alternately with Mencozeb @ 2gm/lit of water at 14 days interval for 2-3 times.
Rapeseed/ Mustard	Vegetative to flowering		- Regular monitoring of moisture of soil may be done to ensure good growth. Irrigation may be given if the soil moisture have decline. - If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
		Aphid	- Use yellow plates for every 3 sq.m to attract the aphids or spray Pyrethrum @ 2ml/ litre of water on the infected patches.
		Hairy caterpillar	- Spray Quinalphos or Chloropyrifos @ 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, 300g and 500g Urea, SSP and MOP respectively should be applied in three split doses at two, six and eight months after planting.
Citrus	After harvesting		Remove water sprouts (tender green shoots emerged from main stem), dried and dead branches after harvesting of fruits. Paste the cut ends with Bordeaux paste.
Cucurbits	Nursery raising		- Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost poly-house or naturally ventilated polyhouse.
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. Spray Imidachloprid 17.8SL @5ml/10 litres of water on 20days old seedlings as prophylactic spray.



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



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.
		Vaccination	Vaccinate against sheep/ goat pox and Enterotoxaemia.
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.
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.

(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

17th 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 18th to 22nd January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (13th to 16th January, 2017)

Observed mainly clear sky but foggy at foothills during morning hours of 13th and 14th Jan, 2017 and no rainfall in past four days. Maximum temperature range of 21.2 to 22.2 °C and minimum temperature range of 4.2 to 4.4 °C with mean relative humidity 87.8 % max and 44.0 % min was recorded in the past four days. The average wind speed range remained 2.4 to 2.9 km/hr.

Weather forecast for next five days of Ukhrul (18th to 22nd January, 2017)

Likely to have no rain upto Sunday. Mainly clear sky with maximum temp. 17 – 19 °C & minimum temp. 1 - 3 °C. Relative humidity may reach up to 95 % (max RH) & 31 % (min RH). The average wind speed may be 3-4 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		- Keep soil moist for good growth. - If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.
		Cut worm	If cut-worm is observed then prepare poison bait of Trichlorfon (mixture of 1kg husk + 40g sugar + 5g Trichlorfon + water) and apply manually by putting near the stem of plant above the soil surface.
		Late Blight	- As a prophylactic measure against late blight, spray Metalaxyl based fungicide, like Redomil MZ-72 WP @ 2 gm/lit alternately with Mencozeb @ 2gm/lit of water at 14 days interval for 2-3 times.
Rapeseed/ Mustard	Vegetative to flowering		- Regular monitoring of moisture of soil may be done to ensure good growth. Irrigation may be given if the soil moisture have decline. - If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
		Aphid	- Use yellow plates for every 3 sq.m to attract the aphids or spray Pyrethrum @ 2ml/ litre of water on the infected patches.
		Hairy caterpillar	- Spray Quinalphos or Chloropyrifos @ 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, 300g and 500g Urea, SSP and MOP respectively should be applied in three split doses at two, six and eight months after planting.
Citrus	After harvesting		Remove water sprouts (tender green shoots emerged from main stem), dried and dead branches after harvesting of fruits. Paste the cut ends with Bordeaux paste.
Cucurbits	Nursery raising		- Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost poly-house or naturally ventilated polyhouse.
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. Spray Imidachloprid 17.8SL @5ml/10 litres of water on 20days old seedlings as prophylactic spray.



ICAR Research Complex for N.E.H. Region
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“Gramin Krishi Mausam Seva”



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.
		Vaccination	Vaccinate against sheep/ goat pox and Enterotoxaemia.
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.
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.

(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

17th January, 2017

Imphal West

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 18th to 22nd January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (13th to 16th January, 2017)

Observed mainly clear sky but foggy at foothills during morning hours of 13th and 14th Jan, 2017 and no rainfall in past four days. Maximum temperature range of 21.2 to 22.2 °C and minimum temperature range of 4.2 to 4.4 °C with mean relative humidity 87.8 % max and 44.0 % min was recorded in the past four days. The average wind speed range remained 2.4 to 2.9 km/hr.

Weather forecast for next five days of Imphal West (18th to 22nd January, 2017)

Likely to have no rain upto Sunday. Mainly clear sky with maximum temp. 20 – 22 °C & minimum temp. 2 - 4 °C. Relative humidity may reach up to 96 % (max RH) & 25 % (min RH). The average wind speed may be 4-6 km/hr. Wind direction may be North Easterly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Potato	Vegetative to flowering		- Keep soil moist for good growth. - If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.
		Cut worm	If cut-worm is observed then prepare poison bait of Trichlorfon (mixture of 1kg husk + 40g sugar + 5g Trichlorfon + water) and apply manually by putting near the stem of plant above the soil surface.
		Late Blight	- As a prophylactic measure against late blight, spray Metalaxyl based fungicide, like Redomil MZ-72 WP @ 2 gm/lit alternately with Mencozeb @ 2gm/lit of water at 14 days interval for 2-3 times.
Rapeseed/ Mustard	Vegetative to flowering		- Regular monitoring of moisture of soil may be done to ensure good growth. Irrigation may be given if the soil moisture have decline. - If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
		Aphid	- Use yellow plates for every 3 sq.m to attract the aphids or spray Pyrethrum @ 2ml/ litre of water on the infected patches.
		Hairy caterpillar	- Spray Quinalphos or Chloropyrifos @ 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, 300g and 500g Urea, SSP and MOP respectively should be applied in three split doses at two, six and eight months after planting.
Citrus	After harvesting		Remove water sprouts (tender green shoots emerged from main stem), dried and dead branches after harvesting of fruits. Paste the cut ends with Bordeaux paste.
Cucurbits	Nursery raising		- Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost poly-house or naturally ventilated polyhouse.
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. Spray Imidachloprid 17.8SL @5ml/10 litres of water on 20days old seedlings as prophylactic spray.



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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.
		Vaccination	Vaccinate against sheep/ goat pox and Enterotoxaemia.
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.
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

17th 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 18th to 22nd January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (13th to 16th January, 2017)

Observed mainly clear sky but foggy at foothills during morning hours of 13th and 14th Jan, 2017 and no rainfall in past four days. Maximum temperature range of 21.2 to 22.2 °C and minimum temperature range of 4.2 to 4.4 °C with mean relative humidity 87.8 % max and 44.0 % min was recorded in the past four days. The average wind speed range remained 2.4 to 2.9 km/hr.

Weather forecast for next five days of Imphal East (18th to 22nd January, 2017)

Likely to have no rain upto Sunday. Mainly clear sky with maximum temp. 20 – 22 °C & minimum temp. 3 - 4 °C. Relative humidity may reach up to 99 % (max RH) & 26 % (min RH). The average wind speed may be 4-5 km/hr. Wind direction may be North Easterly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Potato	Vegetative to flowering		- Keep soil moist for good growth. - If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.
		Cut worm	If cut-worm is observed then prepare poison bait of Trichlorfon (mixture of 1kg husk + 40g sugar + 5g Trichlorfon + water) and apply manually by putting near the stem of plant above the soil surface.
		Late Blight	- As a prophylactic measure against late blight, spray Metalaxyl based fungicide, like Redomil MZ-72 WP @ 2 gm/lit alternately with Mencozeb @ 2gm/lit of water at 14 days interval for 2-3 times.
Rapeseed/ Mustard	Vegetative to flowering		- Regular monitoring of moisture of soil may be done to ensure good growth. Irrigation may be given if the soil moisture have decline. - If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
		Aphid	- Use yellow plates for every 3 sq.m to attract the aphids or spray Pyrethrum @ 2ml/ litre of water on the infected patches.
		Hairy caterpillar	- Spray Quinalphos or Chloropyrifos @ 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.
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