



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



MANIPUR BULLETIN

13th 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 14th to 18th January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (10th to 12th January, 2017)

Observed mainly clear to partly cloudy and foggy sky during morning hours of 10th Jan, 2017 and no rainfall in past three days. Maximum temperature range of 20.9 to 22.1 °C and minimum temperature range of 3.4 to 6.8 °C with mean relative humidity 90.0 % max and 42.3 % min was recorded in the past three days. The average wind speed range remained 2.6 to 3.3 km/hr.

Weather forecast for next five days of Thoubal (14th to 18th January, 2017)

Likely to have no rain upto Wednesday. Shallow to moderate fog is very likely at isolated places over Manipur during next 3 days. Mainly clear to partly cloudy sky with maximum temp. 21 – 22 °C & minimum temp. 3 - 5 °C. Relative humidity may reach up to 97 % (max RH) & 30 % (min RH). The average wind speed may be 2-6 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		- 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.
		Early Blight	- Spray Mencozeb at 7-10 days interval against early blight.
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 Chlorpyrifos @ 2ml/litre of water on the infected patches only.
Pulses	Vegetative		- 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		- Sowing of rabi maize may be done.
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.
Cucurbits	Nursery raising		- Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost poly-house or naturally ventilated polyhouse.
Rabi Vegetable (cole crops)	Vegetative		- 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.
Tomato	Transplanting and vegetative		- Avoid transplanting of tomato in the bed/ plots where chilli/ brinjal were previously grown. It is better to plant it where the previous crop was rice, maize, etc. to avoid bacterial wilt.
Garden pea/ Broad bean	Vegetative		- Light watering may be done to maintain soil moisture.
		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 depending upon the fertility.

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Cauliflower	Transplanting to vegetative		<ul style="list-style-type: none">- Apply Tracel @ 300gm/ sangam in 30-35days old (after transplanting) cauliflower to avoid leaf curling, development of purple coloured vein due to absence of micronutrient. If required repeat it after 10 days.- Apply <i>Chloropyriphos</i> (1.5%) dust @25 kg /ha to the cauliflower/ cabbage infested by cut-worms.- Light watering may be done to maintain soil moisture.
Coriander	Vegetative and late sowing		<ul style="list-style-type: none">- Light watering may be done to maintain soil moisture.- For late, treat seed with <i>Trichoderma harzianum</i> @ 4g/kg seed is recommended to protect against soil borne diseases.
Spinach (Palak)	Vegetative		<ul style="list-style-type: none">- 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	<ul style="list-style-type: none">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. R₂B vaccine of 8-9 weeks of age group birds (layers).3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).
Sheep/ Goat	All age groups excepts the young ones	Deworming	<ul style="list-style-type: none">➤ 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	<ul style="list-style-type: none">➤ 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	<ul style="list-style-type: none">➤ 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	<ul style="list-style-type: none">➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	<ul style="list-style-type: none">➤ Give Piperazine liquid @ 10-15ml orally once only.
		B.Q./ H.S/FMD	<ul style="list-style-type: none">➤ 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		<ul style="list-style-type: none">- 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.

SMS:

Lakliba Yumjakeisa faobada nong leite. Hangamda tilkhak ngakthoknaba ishing 1 litre da 2ml Chloropyrphos happaga kappiyu. Lafuda laina (Sigatoka Leaf Spot disease) ngakthoknaba ishing litre amada 1ml Calixin happaga kappiyu. 200g Urea, 300g SSP amadi 500g MOP ahumrak thokna tha 2, 6 amadi 8da happiyu.

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



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MANIPUR BULLETIN

13th 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 14th to 18th January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (10th to 12th January, 2017)

Observed mainly clear to partly cloudy and foggy sky during morning hours of 10th Jan, 2017 and no rainfall in past three days. Maximum temperature range of 20.9 to 22.1 °C and minimum temperature range of 3.4 to 6.8 °C with mean relative humidity 90.0 % max and 42.3 % min was recorded in the past three days. The average wind speed range remained 2.6 to 3.3 km/hr.

Weather forecast for next five days of Ukhrul (14th to 18th January, 2017)

Likely to have no rain upto Wednesday. Shallow to moderate fog is very likely at isolated places over Manipur during next 3 days. Mainly clear to partly cloudy sky with maximum temp. 17 – 19 °C & minimum temp. 2 - 4 °C. Relative humidity may reach up to 95 % (max RH) & 32 % (min RH). The average wind speed may be 3-4 km/hr. Wind direction may be Westerly to south westerly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Potato	Vegetative		- 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.
		Early Blight	- Spray Mencozeb at 7-10 days interval against early blight.
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		- 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		- Sowing of rabi maize may be done.
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.
Cucurbits	Nursery raising		- Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost poly-house or naturally ventilated polyhouse.
Rabi Vegetable (cole crops)	Vegetative		- 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.
Tomato	Transplanting and vegetative		- Avoid transplanting of tomato in the bed/ plots where chilli/ brinjal were previously grown. It is better to plant it where the previous crop was rice, maize, etc. to avoid bacterial wilt.
Garden pea/ Broad bean	Vegetative		- Light watering may be done to maintain soil moisture.
		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 depending upon the fertility.

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Cauliflower	Transplanting to vegetative		- Apply Tracer @ 300gm/ sangam in 30-35days old (after transplanting) cauliflower to avoid leaf curling, development of purple coloured vein due to absence of micronutrient. If required repeat it after 10 days. - Apply <i>Chloropyriphos (1.5%) dust</i> @25 kg /ha to the cauliflower/ cabbage infested by cut-worms. - Light watering may be done to maintain soil moisture.
Coriander	Vegetative and late sowing		- Light watering may be done to maintain soil moisture. - For late, treat seed with <i>Trichoderma harzianum</i> @ 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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Lakliba Yumjakeisa faobada nong leite. Hangamda tilkhak ngakthoknaba ishing 1 litre da 2ml Chloropyrphos happaga kappiyu. Lafuda laina (Sigatoka Leaf Spot disease) ngakthoknaba ishing litre amada 1ml Calixin happaga kappiyu. 200g Urea, 300g SSP amadi 500g MOP ahumrak thokna tha 2, 6 amadi 8da happiyu.

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MANIPUR BULLETIN

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Imphal East

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Weather forecast for next five days of Imphal East (14th to 18th January, 2017)

Likely to have no rain upto Wednesday. Shallow to moderate fog is very likely at isolated places over Manipur during next 3 days. Mainly clear to partly cloudy sky with maximum temp. 21 – 22 °C & minimum temp. 3 - 5 °C. Relative humidity may reach up to 99 % (max RH) & 28 % (min RH). The average wind speed may be 2-5 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		- 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.
		Early Blight	- Spray Mencozeb at 7-10 days interval against early blight.
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		- 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		- Sowing of rabi maize may be done.
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.
Cucurbits	Nursery raising		- Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost poly-house or naturally ventilated polyhouse.
Rabi Vegetable (cole crops)	Vegetative		- 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.
Tomato	Transplanting and vegetative		- Avoid transplanting of tomato in the bed/ plots where chilli/ brinjal were previously grown. It is better to plant it where the previous crop was rice, maize, etc. to avoid bacterial wilt.
Garden pea/ Broad bean	Vegetative		- Light watering may be done to maintain soil moisture.
		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 depending upon the fertility.

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Coriander	Vegetative and late sowing		<ul style="list-style-type: none">- Light watering may be done to maintain soil moisture.- For late, treat seed with <i>Trichoderma harzianum</i> @ 4g/kg seed is recommended to protect against soil borne diseases.
Spinach (Palak)	Vegetative		<ul style="list-style-type: none">- Light watering may be done to maintain soil moisture.
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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.
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Sheep/ Goat	All age groups excepts the young ones	Deworming	<ul style="list-style-type: none">➤ 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.
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Fishery:			
Type of Farming			
Carp/ Catfish culture	Harvesting and stock maintenance		<ul style="list-style-type: none">- 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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Imphal West

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		Aphid	- Spray Imidachloprid 17.8 SL @ 7-10ml/ 15 litre of water against aphid.
Rabi maize	Sowing		- Sowing of rabi maize may be done.
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.
Cucurbits	Nursery raising		- Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost poly-house or naturally ventilated polyhouse.
Rabi Vegetable (cole crops)	Vegetative		- 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.
Tomato	Transplanting and vegetative		- Avoid transplanting of tomato in the bed/ plots where chilli/ brinjal were previously grown. It is better to plant it where the previous crop was rice, maize, etc. to avoid bacterial wilt.
Garden pea/ Broad bean	Vegetative		- Light watering may be done to maintain soil moisture.
		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 depending upon the fertility.

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

Cauliflower	Transplanting to vegetative		<ul style="list-style-type: none">- Apply Tracer @ 300gm/ sangam in 30-35days old (after transplanting) cauliflower to avoid leaf curling, development of purple coloured vein due to absence of micronutrient. If required repeat it after 10 days.- Apply <i>Chloropyriphos (1.5%) dust</i> @25 kg /ha to the cauliflower/ cabbage infested by cut-worms.- Light watering may be done to maintain soil moisture.
Coriander	Vegetative and late sowing		<ul style="list-style-type: none">- Light watering may be done to maintain soil moisture.- For late, treat seed with <i>Trichoderma harzianum</i> @ 4g/kg seed is recommended to protect against soil borne diseases.
Spinach (Palak)	Vegetative		<ul style="list-style-type: none">- 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	<ul style="list-style-type: none">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. R₂B vaccine of 8-9 weeks of age group birds (layers).3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).
Sheep/ Goat	All age groups excepts the young ones	Deworming	<ul style="list-style-type: none">➤ 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	<ul style="list-style-type: none">➤ 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	<ul style="list-style-type: none">➤ 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	<ul style="list-style-type: none">➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	<ul style="list-style-type: none">➤ Give Piperazine liquid @ 10-15ml orally once only.
		B.Q./ H.S/FMD	<ul style="list-style-type: none">➤ 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		<ul style="list-style-type: none">- 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.

SMS:

Lakliba Yumjakeisa faobada nong leite. Hangamda tilkhak ngakthoknaba ishing 1 litre da 2ml Chloropyrifos happaga kappiyu. Lafuda laina (Sigatoka Leaf Spot disease) ngakthoknaba ishing litre amada 1ml Calixin happaga kappiyu. 200g Urea, 300g SSP amadi 500g MOP ahumrak thokna tha 2, 6 amadi 8da happiyu.

(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

13th 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 14th to 18th January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (10th to 12th January, 2017)

Observed mainly clear to partly cloudy and foggy sky during morning hours of 10th Jan, 2017 and no rainfall in past three days. Maximum temperature range of 20.9 to 22.1 °C and minimum temperature range of 3.4 to 6.8 °C with mean relative humidity 90.0 % max and 42.3 % min was recorded in the past three days. The average wind speed range remained 2.6 to 3.3 km/hr.

Weather forecast for next five days of Bishnupur (14th to 18th January, 2017)

Likely to have no rain upto Wednesday. Shallow to moderate fog is very likely at isolated places over Manipur during next 3 days. Mainly clear to partly cloudy sky with maximum temp. 20 – 22 °C & minimum temp. 4 - 6 °C. Relative humidity may reach up to 96 % (max RH) & 31 % (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		- 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.
		Early Blight	- Spray Mencozeb at 7-10 days interval against early blight.
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 Chlorpyrifos @ 2ml/litre of water on the infected patches only.
Pulses	Vegetative		- 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		- Sowing of rabi maize may be done.
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.
Cucurbits	Nursery raising		- Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost poly-house or naturally ventilated polyhouse.
Rabi Vegetable (cole crops)	Vegetative		- 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.
Tomato	Transplanting and vegetative		- Avoid transplanting of tomato in the bed/ plots where chilli/ brinjal were previously grown. It is better to plant it where the previous crop was rice, maize, etc. to avoid bacterial wilt.
Garden pea/ Broad bean	Vegetative		- Light watering may be done to maintain soil moisture.
		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 depending upon the fertility.

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

Cauliflower	Transplanting to vegetative		- Apply Tracer @ 300gm/ sangam in 30-35days old (after transplanting) cauliflower to avoid leaf curling, development of purple coloured vein due to absence of micronutrient. If required repeat it after 10 days. - Apply <i>Chloropyriphos</i> (1.5%) dust @25 kg /ha to the cauliflower/ cabbage infested by cut-worms. - Light watering may be done to maintain soil moisture.
Coriander	Vegetative and late sowing		- Light watering may be done to maintain soil moisture. - For late, treat seed with <i>Trichoderma harzianum</i> @ 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.

SMS:

Lakliba Yumjakeisa faobada nong leite. Hangamda tilkhak ngakthoknaba ishing 1 litre da 2ml Chloropyrifos happaga kappiyu. Lafuda laina (Sigatoka Leaf Spot disease) ngakthoknaba ishing litre amada 1ml Calixin happaga kappiyu. 200g Urea, 300g SSP amadi 500g MOP ahumrak thokna tha 2, 6 amadi 8da happiyu.

(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
13th 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 14th to 18th January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (10th to 12th January, 2017)

Observed mainly clear to partly cloudy and foggy sky during morning hours of 10th Jan, 2017 and no rainfall in past three days. Maximum temperature range of 20.9 to 22.1 °C and minimum temperature range of 3.4 to 6.8 °C with mean relative humidity 90.0 % max and 42.3 % min was recorded in the past three days. The average wind speed range remained 2.6 to 3.3 km/hr.

Weather forecast for next five days of Chandel (14th to 18th January, 2017)

Likely to have no rain upto Wednesday. Shallow to moderate fog is very likely at isolated places over Manipur during next 3 days. Mainly clear to partly cloudy sky with maximum temp. 20 – 22 °C & minimum temp. 3 - 4 °C. Relative humidity may reach up to 93 % (max RH) & 36 % (min RH). The average wind speed may be 3-5 km/hr. Wind direction may be Westerly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Potato	Vegetative		- 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.
		Early Blight	- Spray Mencozeb at 7-10 days interval against early blight.
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		- 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		- Sowing of rabi maize may be done.
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.
Cucurbits	Nursery raising		- Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost poly-house or naturally ventilated polyhouse.
Rabi Vegetable (cole crops)	Vegetative		- 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.
Tomato	Transplanting and vegetative		- Avoid transplanting of tomato in the bed/ plots where chilli/ brinjal were previously grown. It is better to plant it where the previous crop was rice, maize, etc. to avoid bacterial wilt.
Garden pea/ Broad bean	Vegetative		- Light watering may be done to maintain soil moisture.
		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 depending upon the fertility.

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

Cauliflower	Transplanting to vegetative		- Apply Tracel @ 300gm/ sangam in 30-35days old (after transplanting) cauliflower to avoid leaf curling, development of purple coloured vein due to absence of micronutrient. If required repeat it after 10 days. - Apply <i>Chloropyriphos</i> (1.5%) dust @25 kg /ha to the cauliflower/ cabbage infested by cut-worms. - Light watering may be done to maintain soil moisture.
Coriander	Vegetative and late sowing		- Light watering may be done to maintain soil moisture. - For late, treat seed with <i>Trichoderma harzianum</i> @ 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.

SMS:

Lakliba Yumjakeisa faobada nong leite. Hangamda tilkhak ngakthoknaba ishing 1 litre da 2ml Chloropyrphos happaga kappiyu. Lafuda laina (Sigatoka Leaf Spot disease) ngakthoknaba ishing litre amada 1ml Calixin happaga kappiyu. 200g Urea, 300g SSP amadi 500g MOP ahumrak thokna tha 2, 6 amadi 8da happiyu.

(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

13th January, 2017

Churachandpur

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 14th to 18th January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (10th to 12th January, 2017)

Observed mainly clear to partly cloudy and foggy sky during morning hours of 10th Jan, 2017 and no rainfall in past three days. Maximum temperature range of 20.9 to 22.1 °C and minimum temperature range of 3.4 to 6.8 °C with mean relative humidity 90.0 % max and 42.3 % min was recorded in the past three days. The average wind speed range remained 2.6 to 3.3 km/hr.

Weather forecast for next five days of Churachandpur (14th to 18th January, 2017)

Likely to have no rain upto Wednesday. Shallow to moderate fog is very likely at isolated places over Manipur during next 3 days. Mainly clear to partly cloudy sky with maximum temp. 21 – 23 °C & minimum temp. 3 - 5 °C. Relative humidity may reach up to 98 % (max RH) & 34 % (min RH). The average wind speed may be 3-4 km/hr. Wind direction may be Westerly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Potato	Vegetative		- 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.
		Early Blight	- Spray Mencozeb at 7-10 days interval against early blight.
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 Chlorpyrifos @ 2ml/litre of water on the infected patches only.
Pulses	Vegetative		- 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		- Sowing of rabi maize may be done.
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.
Cucurbits	Nursery raising		- Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost poly-house or naturally ventilated polyhouse.
Rabi Vegetable (cole crops)	Vegetative		- 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.
Tomato	Transplanting and vegetative		- Avoid transplanting of tomato in the bed/ plots where chilli/ brinjal were previously grown. It is better to plant it where the previous crop was rice, maize, etc. to avoid bacterial wilt.
Garden pea/ Broad bean	Vegetative		- Light watering may be done to maintain soil moisture.
		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 depending upon the fertility.

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

Cauliflower	Transplanting to vegetative		- Apply Tracel @ 300gm/ sangam in 30-35days old (after transplanting) cauliflower to avoid leaf curling, development of purple coloured vein due to absence of micronutrient. If required repeat it after 10 days. - Apply <i>Chloropyriphos</i> (1.5%) dust @25 kg /ha to the cauliflower/ cabbage infested by cut-worms. - Light watering may be done to maintain soil moisture.
Coriander	Vegetative and late sowing		- Light watering may be done to maintain soil moisture. - For late, treat seed with <i>Trichoderma harzianum</i> @ 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.

SMS:

Lakliba Yumjakeisa faobada nong leite. Hangamda tilkhak ngakthoknaba ishing 1 litre da 2ml Chloropyrphos happaga kappiyu. Lafuda laina (Sigatoka Leaf Spot disease) ngakthoknaba ishing litre amada 1ml Calixin happaga kappiyu. 200g Urea, 300g SSP amadi 500g MOP ahumrak thokna tha 2, 6 amadi 8da happiyu.

(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

13th 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 14th to 18th January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (10th to 12th January, 2017)

Observed mainly clear to partly cloudy and foggy sky during morning hours of 10th Jan, 2017 and no rainfall in past three days. Maximum temperature range of 20.9 to 22.1 °C and minimum temperature range of 3.4 to 6.8 °C with mean relative humidity 90.0 % max and 42.3 % min was recorded in the past three days. The average wind speed range remained 2.6 to 3.3 km/hr.

Weather forecast for next five days of Senapati (14th to 18th January, 2017)

Likely to have no rain upto Wednesday. Shallow to moderate fog is very likely at isolated places over Manipur during next 3 days. Mainly clear to partly cloudy sky with maximum temp. 17 – 19 °C & minimum temp. 2 - 4 °C. Relative humidity may reach up to 95 % (max RH) & 29 % (min RH). The average wind speed may be 2-5 km/hr. Wind direction may be Westerly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Potato	Vegetative		- 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.
		Early Blight	- Spray Mencozeb at 7-10 days interval against early blight.
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		- 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		- Sowing of rabi maize may be done.
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.
Cucurbits	Nursery raising		- Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost poly-house or naturally ventilated polyhouse.
Rabi Vegetable (cole crops)	Vegetative		- 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.
Tomato	Transplanting and vegetative		- Avoid transplanting of tomato in the bed/ plots where chilli/ brinjal were previously grown. It is better to plant it where the previous crop was rice, maize, etc. to avoid bacterial wilt.
Garden pea/ Broad bean	Vegetative		- Light watering may be done to maintain soil moisture.
		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 depending upon the fertility.

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

Cauliflower	Transplanting to vegetative		- Apply Tracer @ 300gm/ sangam in 30-35days old (after transplanting) cauliflower to avoid leaf curling, development of purple coloured vein due to absence of micronutrient. If required repeat it after 10 days. - Apply <i>Chloropyriphos</i> (1.5%) dust @25 kg /ha to the cauliflower/ cabbage infested by cut-worms. - Light watering may be done to maintain soil moisture.
Coriander	Vegetative and late sowing		- Light watering may be done to maintain soil moisture. - For late, treat seed with <i>Trichoderma harzianum</i> @ 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.

SMS:

Lakliba Yumjakeisa faobada nong leite. Hangamda tilkhak ngakthoknaba ishing 1 litre da 2ml Chloropyrphos happaga kappiyu. Lafuda laina (Sigatoka Leaf Spot disease) ngakthoknaba ishing litre amada 1ml Calixin happaga kappiyu. 200g Urea, 300g SSP amadi 500g MOP ahumrak thokna tha 2, 6 amadi 8da happiyu.

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MANIPUR BULLETIN

13th 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 14th to 18th January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (10th to 12th January, 2017)

Observed mainly clear to partly cloudy and foggy sky during morning hours of 10th Jan, 2017 and no rainfall in past three days. Maximum temperature range of 20.9 to 22.1 °C and minimum temperature range of 3.4 to 6.8 °C with mean relative humidity 90.0 % max and 42.3 % min was recorded in the past three days. The average wind speed range remained 2.6 to 3.3 km/hr.

Weather forecast for next five days of Tamenglong (14th to 18th January, 2017)

Likely to have no rain upto Wednesday. Shallow to moderate fog is very likely at isolated places over Manipur during next 3 days. Mainly clear to partly cloudy sky with maximum temp. 20 – 22 °C & minimum temp. 4 - 6 °C. Relative humidity may reach up to 97 % (max RH) & 30 % (min RH). The average wind speed may be 3-5 km/hr. Wind direction may be Westerly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Potato	Vegetative		- 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.
		Early Blight	- Spray Mencozeb at 7-10 days interval against early blight.
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 Chlorpyrifos @ 2ml/litre of water on the infected patches only.
Pulses	Vegetative		- 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		- Sowing of rabi maize may be done.
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.
Cucurbits	Nursery raising		- Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost poly-house or naturally ventilated polyhouse.
Rabi Vegetable (cole crops)	Vegetative		- 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.
Tomato	Transplanting and vegetative		- Avoid transplanting of tomato in the bed/ plots where chilli/ brinjal were previously grown. It is better to plant it where the previous crop was rice, maize, etc. to avoid bacterial wilt.
Garden pea/ Broad bean	Vegetative		- Light watering may be done to maintain soil moisture.
		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 depending upon the fertility.

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Cauliflower	Transplanting to vegetative		- Apply Tracer @ 300gm/ sangam in 30-35days old (after transplanting) cauliflower to avoid leaf curling, development of purple coloured vein due to absence of micronutrient. If required repeat it after 10 days. - Apply <i>Chloropyriphos</i> (1.5%) dust @25 kg /ha to the cauliflower/ cabbage infested by cut-worms. - Light watering may be done to maintain soil moisture.
Coriander	Vegetative and late sowing		- Light watering may be done to maintain soil moisture. - For late, treat seed with <i>Trichoderma harzianum</i> @ 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
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		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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