

Manipur Centre, Lamphelpat, Imphal - 795 004





# MANIPUR BULLETIN 13<sup>th</sup> 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 14<sup>th</sup> to 18<sup>th</sup> January, 2017 as below:

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

Observed mainly clear to partly cloudy and foggy sky during morning hours of  $10^{th}$  Jan, 2017 and no rainfall in past three days. Maximum temperature range of 20.9 to 22.1  $^{\circ}$  C and minimum temperature range of 3.4 to 6.8  $^{\circ}$  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 (14<sup>th</sup> to 18<sup>th</sup> 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.  $21-22\,^{\circ}\mathrm{C}$  & minimum temp.  $3-5\,^{\circ}\mathrm{C}$ . 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			J
Potato	Vegetative	Cut worm	- 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.  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
		Early Blight	the stem of plant above the soil surface Spray Mencozeb at 7-10 days interval against early blight.
Rapeseed/ Mustard	Vegetative to flowering	Early Bright	<ul> <li>- Spray Mencozeo at 7-10 days interval against early origin.</li> <li>- Regular monitoring of moisture of soil may be done to ensure good growth.</li> <li>Irrigation may be given if the soil moisture have decline.</li> <li>- If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.</li> </ul>
		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.
Rabi maize	Sowing	Aphid	- Spray Imidachloprid 17.8 SL @ 7-10ml/ 15 litre of water against aphid Sowing of rabi maize may be done.
Seeds storage	Post harvest management		<ul> <li>For seed purpose dry, clean and store the seeds in <i>RC-seed bins</i> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of seeds.</li> <li>After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in <i>godowns</i>.</li> </ul>
Horticulture Crops			170 mgowowiii
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	powdery mildew and yellow rust	<ul> <li>Light watering may be done to maintain soil moisture.</li> <li>Spray Bayleton @ 7 g/ 10 litres of water against powdery mildew and yellow rust especially to the crops grown in moist/ shady area.</li> </ul>
Onion	Vegetative	-	<ul> <li>Give light irrigation if the soil is dry.</li> <li>30 to 45 days old transplanted onion should be top dressed with 20-25 kg urea depending upon the fertility.</li> </ul>



### Manipur Centre, Lamphelpat, Imphal - 795 004





Cauliflower	Transplantii vegetative	ng to	<ul> <li>- 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.</li> <li>- Apply <i>Chloropyriphos</i> (1.5%) dust @25 kg/ha to the cauliflower/ cabbage infested by cut-worms.</li> <li>- Light watering may be done to maintain soil moisture.</li> </ul>
Coriander	Vegetative a late sowing	and	<ul> <li>Light watering may be done to maintain soil moisture.</li> <li>For late, treat seed with Trichoderma harzianum @ 4g/kg seed is recommended to protect against soil borne diseases.</li> </ul>
Spinach (Palak	) Vegetative		- Light watering may be done to maintain soil moisture.
Animal Science	, -		
Name of the anin			
Poultry All age gro (Chicken/ Turkey/ Duck)		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	<ol> <li>F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds.</li> <li>R<sub>2</sub>B vaccine of 8-9 weeks of age group birds (layers).</li> <li>Killed ND virus vaccine of 16-18 weeks of age group birds (layers).</li> </ol>
Sheep/ Goat	All age groups	Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
	excepts the young ones	Vaccination	Vaccinate against sheep/ goat pox and Enterotoxaemia.
	All age groups	De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
Pig	except the young ones	Care and management	<ul> <li>Mineral mixture be added in feed @10-20 g/adult animal.</li> <li>Treat drinking water with potassium permanganate/ sanitizer.</li> <li>Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds</li> </ul>
		Mites infestation	Spray with Skin Heal Spray in sufficient quantity.
Cattle	All age groups	Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
e	excepts the young ones	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		<ul> <li>Stocking of fish for next year may be done in ponds having 1.5m water depth @ 10,000/ ha.</li> <li>Feeds should be provided @ 3 % body weight per day.</li> <li>Well balanced feed fortified with vitamins and minerals should be provided.</li> </ul>
1	1	1	1 1 1 1 0 00 051 1 1 1 001

#### SMS:

Lakliba Yumjakeisa faobada nong leite. Hangamda tilkhak ngakthoknaba ishing 1 litre da 2ml Chloropyriphos 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.

- Apply Lime @ 30-35 kg/ha at 30days interval.



Manipur Centre, Lamphelpat, Imphal - 795 004





# MANIPUR BULLETIN 13<sup>th</sup> 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 14<sup>th</sup> to 18<sup>th</sup> January, 2017 as below:

## Significant past weather for the preceding bi-weekly of Imphal - West $(10^{th}\ to\ 12^{th}\ January,\ 2017)$

Observed mainly clear to partly cloudy and foggy sky during morning hours of  $10^{th}$  Jan, 2017 and no rainfall in past three days. Maximum temperature range of 20.9 to 22.1  $^{\circ}$ C and minimum temperature range of 3.4 to 6.8  $^{\circ}$ 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 (14<sup>th</sup> to 18<sup>th</sup> 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.  $17-19\,^{\circ}\,\mathrm{C}$  & minimum temp. 2-4  $^{\circ}\,\mathrm{C}$ . 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		<ul> <li>- Keep soil moist for good growth.</li> <li>- If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.</li> </ul>
		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		<ul> <li>Regular monitoring of moisture of soil may be done to ensure good growth.</li> <li>Irrigation may be given if the soil moisture have decline.</li> <li>If flowering has started, then four bee boxes may be kept for one hectare crop</li> </ul>
			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		<ul> <li>For seed purpose dry, clean and store the seeds in <i>RC-seed bins</i> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of seeds.</li> <li>After proper drying, store grains in well ventilated godowns. Spray Malathion</li> </ul>
			1% in <i>godowns</i> .
Horticulture Crops			
Banana		Sigatoka Leaf Spot	- If Sigatoka Leaf Spot disease is observed then spray Calixin @ 1 ml/ lit of water.
			- 200g, 300g and 500g Urea, SSP and MOP respectively should be applied in three split doses at two, six and eight months after planting.
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	Vegetative		- Light watering may be done to maintain soil moisture.
bean		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		<ul> <li>Give light irrigation if the soil is dry.</li> <li>30 to 45 days old transplanted onion should be top dressed with 20-25 kg urea depending upon the fertility.</li> </ul>



Manipur Centre, Lamphelpat, Imphal - 795 004





Cauliflower	Transplantii	ng to	- Apply Tracel @ 300gm/ sangam in 30-35days old (after transplanting)
	vegetative		cauliflower to avoid leaf curling, development of purple coloured vein due to
			absence of micronutrient. If required repeat it after 10 days.
			- Apply Chloropyriphos (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 a	and	- Light watering may be done to maintain soil moisture.
	late sowing		- For late, treat seed with Trichoderma harzianum @ 4g/kg seed is recommended
			to protect against soil borne diseases.
Spinach (Palak	) Vegetative		- Light watering may be done to maintain soil moisture.
Animal Science	S		
Name of the anin	nal		
Poultry	All age groups	Care & management	Protect from intense cold. Keep the shed wall covered with hessian cloth during night.
(Chicken/			Proper ventilation must be provided to protect from moisture inside the shed. Litter
Turkey/ Duck)			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 <sub>2</sub> B vaccine of 8-9 weeks of age group birds (layers).
			3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).
		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with
Sheep/ Goat	All age groups		half the dose at regular interval of 3 weeks.
	excepts the	Vaccination	Vaccinate against sheep/ goat pox and Enterotoxaemia.
	young ones		
		De-worming	De-worming of animals should be done using Abendazole/ Levamisole @7.5
	All age groups		mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
Pig	except the	Care and management	Mineral mixture be added in feed @10-20 g/adult animal.
8	young ones		Treat drinking water with potassium permanganate/ sanitizer.
		3.5%	Provide ample ventilation in the shed/dry bedding. Avoid dampness in sheds
	A 11	Mites infestation	> Spray with Skin Heal Spray in sufficient quantity.
Cattle	All age groups	Deworming	Give Piperazine liquid @ 10-15ml orally once only.
	excepts the	D O / H C/EMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia,
	young ones	B.Q./ H.S/FMD	Foot & Mouth Disease, etc.
T: 1		Ectoparasites	Butox@ 2ml/lit of water at forth nightly interval.
Fishery:			
Type of Farming	<u> </u>	<u> </u>	- Stocking of fish for next year may be done in ponds having 1.5m water depth @
Com/Cotfiel	Unmanting or d		- Stocking of fish for next year may be done in ponds having 1.5m water depth @ 10,000/ ha.
Carp/ Catfish culture	Harvesting and		
cuiture	stock maintenance		- Feeds should be provided @ 3 % body weight per day Well balanced feed fortified with vitamins and minerals should be provided.
	mannenance		- Well balanced leed fortified with vitamins and minerals should be provided.  - Apply Lime @ 30-35 kg/ha at 30days interval.
			- Appry Lime & 50-55 kg/na at 50days interval.

### SMS:

Lakliba Yumjakeisa faobada nong leite. Hangamda tilkhak ngakthoknaba ishing 1 litre da 2ml Chloropyriphos 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.



Manipur Centre, Lamphelpat, Imphal - 795 004





# MANIPUR BULLETIN 13<sup>th</sup> 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 14<sup>th</sup> to 18<sup>th</sup> January, 2017 as below:

## Significant past weather for the preceding bi-weekly of Imphal - West $(10^{th}\ to\ 12^{th}\ January,\ 2017)$

Observed mainly clear to partly cloudy and foggy sky during morning hours of  $10^{th}$  Jan, 2017 and no rainfall in past three days. Maximum temperature range of 20.9 to 22.1  $^{\circ}$  C and minimum temperature range of 3.4 to 6.8  $^{\circ}$  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 Imphal East $(14^{\rm th}$ to $18^{\rm th}$ 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.  $21-22\,^{\circ}\mathrm{C}$  & minimum temp.  $3-5\,^{\circ}\mathrm{C}$ . 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			J
Potato	Vegetative	Cut worm	- 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.  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	Zmi, zngin	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		<ul> <li>For seed purpose dry, clean and store the seeds in <i>RC-seed bins</i> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of seeds.</li> <li>After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in <i>godowns</i>.</li> </ul>
Horticulture Crops			170 mgvwv/mir
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	Vegetative		- Light watering may be done to maintain soil moisture.
bean		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		<ul> <li>Give light irrigation if the soil is dry.</li> <li>30 to 45 days old transplanted onion should be top dressed with 20-25 kg urea depending upon the fertility.</li> </ul>



Manipur Centre, Lamphelpat, Imphal - 795 004





Cauliflower	Transplantir	ng to	- Apply Tracel @ 300gm/ sangam in 30-35days old (after transplanting)
	vegetative		cauliflower to avoid leaf curling, development of purple coloured vein due to
			absence of micronutrient. If required repeat it after 10 days.
			- Apply Chloropyriphos (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 a	and	- Light watering may be done to maintain soil moisture.
	late sowing		- For late, treat seed with Trichoderma harzianum @ 4g/kg seed is recommended
			to protect against soil borne diseases.
Spinach (Palak	) Vegetative		- Light watering may be done to maintain soil moisture.
Animal Science	S		
Name of the anin	nal	·	
Poultry	All age groups	Care & management	Protect from intense cold. Keep the shed wall covered with hessian cloth during night.
(Chicken/			Proper ventilation must be provided to protect from moisture inside the shed. Litter
Turkey/ Duck)			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 <sub>2</sub> B vaccine of 8-9 weeks of age group birds (layers).
			3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).
		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with
Sheep/ Goat	All age groups		half the dose at regular interval of 3 weeks.
	excepts the	Vaccination	Vaccinate against sheep/ goat pox and Enterotoxaemia.
	young ones		
	4.11	De-worming	De-worming of animals should be done using Abendazole/ Levamisole @7.5
	All age groups		mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
Pig	except the	Care and management	Mineral mixture be added in feed @10-20 g/adult animal.
8	young ones		Treat drinking water with potassium permanganate/ sanitizer.
		3.5%	Provide ample ventilation in the shed/dry bedding. Avoid dampness in sheds
	A 11	Mites infestation	Spray with Skin Heal Spray in sufficient quantity.
Cattle	All age groups	Deworming	Give Piperazine liquid @ 10-15ml orally once only.
	excepts the	D O / H C/EMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia,
	young ones	B.Q./ H.S/FMD	Foot & Mouth Disease, etc.
T: 1		Ectoparasites	Butox@ 2ml/lit of water at forth nightly interval.
Fishery:			
Type of Farming			C4-1:
Com/Cotfiel	Unregating or d		- Stocking of fish for next year may be done in ponds having 1.5m water depth @ 10,000/ ha.
Carp/ Catfish culture	Harvesting and		, and the second
cuiture	stock maintenance		- Feeds should be provided @ 3 % body weight per day Well balanced feed fortified with vitamins and minerals should be provided.
	mammenance		- Well balanced leed fortified with vitamins and minerals should be provided.  - Apply Lime @ 30-35 kg/ha at 30days interval.
			- Appry Line & 50-55 kg/na at 50days interval.

### SMS:

Lakliba Yumjakeisa faobada nong leite. Hangamda tilkhak ngakthoknaba ishing 1 litre da 2ml Chloropyriphos 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.



Manipur Centre, Lamphelpat, Imphal - 795 004





# MANIPUR BULLETIN 13<sup>th</sup> 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 14<sup>th</sup> to 18<sup>th</sup> January, 2017 as below:

## Significant past weather for the preceding bi-weekly of Imphal - West $(10^{th}\ to\ 12^{th}\ January,\ 2017)$

Observed mainly clear to partly cloudy and foggy sky during morning hours of  $10^{th}$  Jan, 2017 and no rainfall in past three days. Maximum temperature range of 20.9 to 22.1  $^{\circ}$  C and minimum temperature range of 3.4 to 6.8  $^{\circ}$  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 Imphal West $(14^{th}\ to\ 18^{th}\ January,\ 2017)$

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.  $21-23\,^{\circ}\mathrm{C}$  & minimum temp.  $3-5\,^{\circ}\mathrm{C}$ . 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			J
Potato	Vegetative	Cut worm	- 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.  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	Zmi, zngin	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		<ul> <li>For seed purpose dry, clean and store the seeds in <i>RC-seed bins</i> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of seeds.</li> <li>After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in <i>godowns</i>.</li> </ul>
Horticulture Crops			170 mgvwv/mir
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	Vegetative		- Light watering may be done to maintain soil moisture.
bean		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		<ul> <li>Give light irrigation if the soil is dry.</li> <li>30 to 45 days old transplanted onion should be top dressed with 20-25 kg urea depending upon the fertility.</li> </ul>



Manipur Centre, Lamphelpat, Imphal - 795 004





Cauliflower	Transplantir	ng to	- Apply Tracel @ 300gm/ sangam in 30-35days old (after transplanting)
	vegetative		cauliflower to avoid leaf curling, development of purple coloured vein due to
			absence of micronutrient. If required repeat it after 10 days.
			- Apply Chloropyriphos (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 a	and	- Light watering may be done to maintain soil moisture.
	late sowing		- For late, treat seed with Trichoderma harzianum @ 4g/kg seed is recommended
			to protect against soil borne diseases.
Spinach (Palak	) Vegetative		- Light watering may be done to maintain soil moisture.
Animal Science	S		
Name of the anin	nal	·	
Poultry	All age groups	Care & management	Protect from intense cold. Keep the shed wall covered with hessian cloth during night.
(Chicken/			Proper ventilation must be provided to protect from moisture inside the shed. Litter
Turkey/ Duck)			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 <sub>2</sub> B vaccine of 8-9 weeks of age group birds (layers).
			3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).
		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with
Sheep/ Goat	All age groups		half the dose at regular interval of 3 weeks.
	excepts the	Vaccination	Vaccinate against sheep/ goat pox and Enterotoxaemia.
	young ones		
	4.11	De-worming	De-worming of animals should be done using Abendazole/ Levamisole @7.5
	All age groups		mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
Pig	except the	Care and management	Mineral mixture be added in feed @10-20 g/adult animal.
8	young ones		Treat drinking water with potassium permanganate/ sanitizer.
		3.5%	Provide ample ventilation in the shed/dry bedding. Avoid dampness in sheds
	A 11	Mites infestation	Spray with Skin Heal Spray in sufficient quantity.
Cattle	All age groups	Deworming	Give Piperazine liquid @ 10-15ml orally once only.
	excepts the	D O / H C/EMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia,
	young ones	B.Q./ H.S/FMD	Foot & Mouth Disease, etc.
T: 1		Ectoparasites	Butox@ 2ml/lit of water at forth nightly interval.
Fishery:			
Type of Farming			C4-1:
Com/Cotfiel	Unregating or d		- Stocking of fish for next year may be done in ponds having 1.5m water depth @ 10,000/ ha.
Carp/ Catfish culture	Harvesting and		, and the second
cuiture	stock maintenance		- Feeds should be provided @ 3 % body weight per day Well balanced feed fortified with vitamins and minerals should be provided.
	mammenance		- Well balanced leed fortified with vitamins and minerals should be provided.  - Apply Lime @ 30-35 kg/ha at 30days interval.
			- Appry Line & 50-55 kg/na at 50days interval.

### SMS:

Lakliba Yumjakeisa faobada nong leite. Hangamda tilkhak ngakthoknaba ishing 1 litre da 2ml Chloropyriphos 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.



Manipur Centre, Lamphelpat, Imphal - 795 004





# MANIPUR BULLETIN 13<sup>th</sup> 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 14<sup>th</sup> to 18<sup>th</sup> January, 2017 as below:

## Significant past weather for the preceding bi-weekly of Imphal - West $(10^{th}\ to\ 12^{th}\ January,\ 2017)$

Observed mainly clear to partly cloudy and foggy sky during morning hours of  $10^{th}$  Jan, 2017 and no rainfall in past three days. Maximum temperature range of 20.9 to 22.1  $^{\circ}$  C and minimum temperature range of 3.4 to 6.8  $^{\circ}$  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 (14<sup>th</sup> to 18<sup>th</sup> 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.  $20-22\,^{\circ}\text{C}$  & minimum temp.  $4-6\,^{\circ}\text{C}$ . 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		<ul> <li>- Keep soil moist for good growth.</li> <li>- If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.</li> </ul>
		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		<ul> <li>Regular monitoring of moisture of soil may be done to ensure good growth.</li> <li>Irrigation may be given if the soil moisture have decline.</li> <li>If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.</li> </ul>
		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		<ul> <li>For seed purpose dry, clean and store the seeds in <i>RC-seed bins</i> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of seeds.</li> <li>After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in <i>godowns</i>.</li> </ul>
Horticulture Crops			J. C. C. Marketter and C.
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	Vegetative		- Light watering may be done to maintain soil moisture.
bean		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		<ul> <li>Give light irrigation if the soil is dry.</li> <li>30 to 45 days old transplanted onion should be top dressed with 20-25 kg urea depending upon the fertility.</li> </ul>



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

Manipur Centre, Lamphelpat, Imphal - 795 004





Cauliflower	Transplanti vegetative	ng to	- 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		- Light watering may be done to maintain soil moisture.	
	late sowing		- For late, treat seed with Trichoderma harzianum @ 4g/kg seed is recommended	
			to protect against soil borne diseases.	
Spinach (Palak			- Light watering may be done to maintain soil moisture.	
Animal Science	es e			
Name of the anim	mal	·		
Poultry	All age groups	Care & management	Protect from intense cold. Keep the shed wall covered with hessian cloth during night.	
(Chicken/ Turkey/ Duck)			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 <sub>2</sub> 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	Deworming	Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.	
	excepts the young ones	Vaccination	Vaccinate against sheep/ goat pox and Enterotoxaemia.	
	All age groups	De-worming	De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.	
Dia	except the	Care and management	➤ Mineral mixture be added in feed @10-20 g/adult animal.	
Pig	young ones		Treat drinking water with potassium permanganate/ sanitizer.	
			Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds	
		Mites infestation	Spray with Skin Heal Spray in sufficient quantity.	
Cattle	All age groups	Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.	
Cattic	excepts the young ones	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	Harvesting and		- Stocking of fish for next year may be done in ponds having 1.5m water depth @ 10,000/ ha.	
culture	stock		- Feeds should be provided @ 3 % body weight per day.	
	maintenance		- 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 Chloropyriphos 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.



Manipur Centre, Lamphelpat, Imphal - 795 004





# MANIPUR BULLETIN 13<sup>th</sup> 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 14<sup>th</sup> to 18<sup>th</sup> January, 2017 as below:

## Significant past weather for the preceding bi-weekly of Imphal - West $(10^{th}\ to\ 12^{th}\ January,\ 2017)$

Observed mainly clear to partly cloudy and foggy sky during morning hours of  $10^{th}$  Jan, 2017 and no rainfall in past three days. Maximum temperature range of 20.9 to 22.1  $^{\circ}$ C and minimum temperature range of 3.4 to 6.8  $^{\circ}$ 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 (14<sup>th</sup> to 18<sup>th</sup> 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.  $20-22\,^{\circ}\mathrm{C}$  & minimum temp.  $3-4\,^{\circ}\mathrm{C}$ . 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		<ul> <li>- Keep soil moist for good growth.</li> <li>- If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.</li> </ul>
		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		<ul> <li>Regular monitoring of moisture of soil may be done to ensure good growth.</li> <li>Irrigation may be given if the soil moisture have decline.</li> <li>If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.</li> </ul>
		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		<ul> <li>For seed purpose dry, clean and store the seeds in <i>RC-seed bins</i> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of seeds.</li> <li>After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in <i>godowns</i>.</li> </ul>
Horticulture Crops			170 mgowo mio.
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	Vegetative		- Light watering may be done to maintain soil moisture.
bean		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		<ul> <li>Give light irrigation if the soil is dry.</li> <li>30 to 45 days old transplanted onion should be top dressed with 20-25 kg urea depending upon the fertility.</li> </ul>



### Manipur Centre, Lamphelpat, Imphal - 795 004





Cauliflower	<b>Cauliflower</b> Transplantin		- Apply Tracel @ 300gm/ sangam in 30-35days old (after transplanting)
	vegetative		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	- Light watering may be done to maintain soil moisture.
	late sowing	;	- 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.
<b>Animal Science</b>	S		
Name of the anin	nal		
Poultry	All age groups	Care & management	Protect from intense cold. Keep the shed wall covered with hessian cloth during night.
(Chicken/			Proper ventilation must be provided to protect from moisture inside the shed. Litter
Turkey/ Duck)			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 <sub>2</sub> B vaccine of 8-9 weeks of age group birds (layers).
			3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).
		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with
Sheep/ Goat	All age groups		half the dose at regular interval of 3 weeks.
	excepts the	Vaccination	Vaccinate against sheep/ goat pox and Enterotoxaemia.
	young ones		
		De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5
	All age groups	G 1	mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
Pig	except the	Care and managemen	
<u> </u>	young ones		Treat drinking water with potassium permanganate/ sanitizer.
		35'	Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
	A 11	Mites infestation	Spray with Skin Heal Spray in sufficient quantity.
Cattle	All age groups	Deworming	Give Piperazine liquid @ 10-15ml orally once only.
	excepts the	D O / H C/EMD	First & March Disease str
	young ones	B.Q./ H.S/FMD	Foot & Mouth Disease, etc.
T: 1		Ectoparasites	Butox@ 2ml/lit of water at forth nightly interval.
Fishery:			
Type of Farming		<u> </u>	Stacking of figh for part year may be done in pands baying 15
Com/Cotfigle	Unwesting and		- Stocking of fish for next year may be done in ponds having 1.5m water depth @ 10,000/ ha.
Carp/ Catfish culture	Harvesting and stock		
culture	maintenance		<ul> <li>Feeds should be provided @ 3 % body weight per day.</li> <li>Well balanced feed fortified with vitamins and minerals should be provided.</li> </ul>
	maintenance		
	1		- Apply Lime @ 30-35 kg/ha at 30days interval.

#### SMS:

Lakliba Yumjakeisa faobada nong leite. Hangamda tilkhak ngakthoknaba ishing 1 litre da 2ml Chloropyriphos 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.



Manipur Centre, Lamphelpat, Imphal - 795 004





# MANIPUR BULLETIN 13<sup>th</sup> 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 14<sup>th</sup> to 18<sup>th</sup> January, 2017 as below:

## Significant past weather for the preceding bi-weekly of Imphal - West $(10^{th}\ to\ 12^{th}\ January,\ 2017)$

Observed mainly clear to partly cloudy and foggy sky during morning hours of  $10^{th}$  Jan, 2017 and no rainfall in past three days. Maximum temperature range of 20.9 to 22.1  $^{\circ}\,\text{C}$  and minimum temperature range of 3.4 to 6.8  $^{\circ}\,\text{C}$  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 $(14^{th}\ to\ 18^{th}\ January,\ 2017)$

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.  $21-23\,^{\circ}\mathrm{C}$  & minimum temp.  $3-5\,^{\circ}\mathrm{C}$ . 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			J.
Potato	Vegetative	Cut worm	- 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.  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	Early Bright	- 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		<ul> <li>For seed purpose dry, clean and store the seeds in <i>RC-seed bins</i> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of seeds.</li> <li>After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in <i>godowns</i>.</li> </ul>
Horticulture Crops			170 mgowown
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	Vegetative		- Light watering may be done to maintain soil moisture.
bean		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		<ul> <li>Give light irrigation if the soil is dry.</li> <li>30 to 45 days old transplanted onion should be top dressed with 20-25 kg urea depending upon the fertility.</li> </ul>



### Manipur Centre, Lamphelpat, Imphal - 795 004





Cauliflower Transplant		ng to	- Apply Tracel @ 300gm/ sangam in 30-35days old (after transplanting)
	vegetative		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 a	and	- Light watering may be done to maintain soil moisture.
	late sowing		- For late, treat seed with Trichoderma harzianum @ 4g/kg seed is recommended
			to protect against soil borne diseases.
Spinach (Palal	k) Vegetative		- Light watering may be done to maintain soil moisture.
Animal Science			
Name of the ani	mal	L.	<del></del>
Poultry	All age groups	Care & management	Protect from intense cold. Keep the shed wall covered with hessian cloth during night.
(Chicken/	0 0 1		Proper ventilation must be provided to protect from moisture inside the shed. Litter
Turkey/ Duck)			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 <sub>2</sub> B vaccine of 8-9 weeks of age group birds (layers).
			3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).
		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with
Sheep/ Goat	All age groups		half the dose at regular interval of 3 weeks.
	excepts the	Vaccination	Vaccinate against sheep/ goat pox and Enterotoxaemia.
	young ones		
		De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5
	All age groups		mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
Pig	except the	Care and management	➤ Mineral mixture be added in feed @10-20 g/adult animal.
* *8	young ones		Treat drinking water with potassium permanganate/ sanitizer.
			Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
		Mites infestation	> Spray with Skin Heal Spray in sufficient quantity.
Cattle	All age groups	Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
	excepts the		> If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia,
	young ones	B.Q./ H.S/FMD	Foot & Mouth Disease, etc.
		Ectoparasites	Butox@ 2ml/lit of water at forth nightly interval.
Fishery:			
Type of Farming		T	
			- Stocking of fish for next year may be done in ponds having 1.5m water depth @
Carp/ Catfish	Harvesting and		10,000/ ha.
	stock		- Feeds should be provided @ 3 % body weight per day.
	maintenance		- Well balanced feed fortified with vitamins and minerals should be provided.
			- Apply Lime @ 30-35 kg/ha at 30days interval.

### SMS:

Lakliba Yumjakeisa faobada nong leite. Hangamda tilkhak ngakthoknaba ishing 1 litre da 2ml Chloropyriphos 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.



Manipur Centre, Lamphelpat, Imphal - 795 004





# MANIPUR BULLETIN 13<sup>th</sup> 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 14<sup>th</sup> to 18<sup>th</sup> January, 2017 as below:

## Significant past weather for the preceding bi-weekly of Imphal - West $(10^{th}\ to\ 12^{th}\ January,\ 2017)$

Observed mainly clear to partly cloudy and foggy sky during morning hours of  $10^{th}$  Jan, 2017 and no rainfall in past three days. Maximum temperature range of 20.9 to 22.1  $^{\circ}$  C and minimum temperature range of 3.4 to 6.8  $^{\circ}$  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 (14<sup>th</sup> to 18<sup>th</sup> 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.  $17-19\,^{\circ}\mathrm{C}$  & minimum temp.  $2-4\,^{\circ}\mathrm{C}$ . 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			J
Potato	Vegetative	Cut worm	- 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.  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	Zmi, zngin	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		<ul> <li>For seed purpose dry, clean and store the seeds in <i>RC-seed bins</i> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of seeds.</li> <li>After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in <i>godowns</i>.</li> </ul>
Horticulture Crops			170 mgvwv/mir
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	Vegetative		- Light watering may be done to maintain soil moisture.
bean		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		<ul> <li>Give light irrigation if the soil is dry.</li> <li>30 to 45 days old transplanted onion should be top dressed with 20-25 kg urea depending upon the fertility.</li> </ul>



### Manipur Centre, Lamphelpat, Imphal - 795 004





Cauliflower	Transplantii vegetative	ng to	<ul> <li>- 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.</li> <li>- Apply <i>Chloropyriphos</i> (1.5%) dust @25 kg /ha to the cauliflower/ cabbage infested by cut-worms.</li> <li>- Light watering may be done to maintain soil moisture.</li> </ul>
Coriander	Vegetative a	and	- Light watering may be done to maintain soil moisture.
	late sowing		- For late, treat seed with Trichoderma harzianum @ 4g/kg seed is recommended to protect against soil borne diseases.
Spinach (Palak)	Vegetative		- Light watering may be done to maintain soil moisture.
Animal Sciences			
Name of the anim	nal	<u> </u>	,
Poultry All age groups (Chicken/ Turkey/ Duck)		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	<ol> <li>F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds.</li> <li>R<sub>2</sub>B vaccine of 8-9 weeks of age group birds (layers).</li> <li>Killed ND virus vaccine of 16-18 weeks of age group birds (layers).</li> </ol>
excepts the	All age groups	Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
	excepts the young ones	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	<ul> <li>Mineral mixture be added in feed @10-20 g/adult animal.</li> <li>Treat drinking water with potassium permanganate/ sanitizer.</li> <li>Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds</li> </ul>
		Mites infestation	Spray with Skin Heal Spray in sufficient quantity.
Cattle	All age groups	Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
Cattle	excepts the young ones	B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc.
		Ectoparasites	Butox@ 2ml/lit of water at forth nightly interval.
Fishery: Type of Farming			
Carp/ Catfish culture	Harvesting and stock		<ul> <li>Stocking of fish for next year may be done in ponds having 1.5m water depth @ 10,000/ ha.</li> <li>Feeds should be provided @ 3 % body weight per day.</li> </ul>
	maintenance		<ul> <li>Well balanced feed fortified with vitamins and minerals should be provided.</li> <li>Apply Lime @ 30-35 kg/ha at 30days interval.</li> </ul>

#### SMS:

Lakliba Yumjakeisa faobada nong leite. Hangamda tilkhak ngakthoknaba ishing 1 litre da 2ml Chloropyriphos 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.



Manipur Centre, Lamphelpat, Imphal - 795 004





# MANIPUR BULLETIN 13<sup>th</sup> 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 14<sup>th</sup> to 18<sup>th</sup> January, 2017 as below:

## Significant past weather for the preceding bi-weekly of Imphal - West $(10^{th}\ to\ 12^{th}\ January,\ 2017)$

Observed mainly clear to partly cloudy and foggy sky during morning hours of  $10^{th}$  Jan, 2017 and no rainfall in past three days. Maximum temperature range of 20.9 to 22.1  $^{\circ}$  C and minimum temperature range of 3.4 to 6.8  $^{\circ}$  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 $(14^{th}\ to\ 18^{th}\ January,\ 2017)$

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.  $20-22\,^{\circ}\text{C}$  & minimum temp.  $4-6\,^{\circ}\text{C}$ . 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		<ul> <li>- Keep soil moist for good growth.</li> <li>- If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.</li> </ul>
		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		<ul> <li>Regular monitoring of moisture of soil may be done to ensure good growth.</li> <li>Irrigation may be given if the soil moisture have decline.</li> <li>If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.</li> </ul>
		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		<ul> <li>For seed purpose dry, clean and store the seeds in <i>RC-seed bins</i> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of seeds.</li> <li>After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in <i>godowns</i>.</li> </ul>
Horticulture Crops			170 III gouornis.
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	Vegetative		- Light watering may be done to maintain soil moisture.
bean		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		<ul> <li>Give light irrigation if the soil is dry.</li> <li>30 to 45 days old transplanted onion should be top dressed with 20-25 kg urea depending upon the fertility.</li> </ul>



### Manipur Centre, Lamphelpat, Imphal - 795 004





Cauliflower	Transplantii vegetative	ng to	<ul> <li>- 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.</li> <li>- Apply <i>Chloropyriphos</i> (1.5%) dust @25 kg /ha to the cauliflower/ cabbage infested by cut-worms.</li> <li>- Light watering may be done to maintain soil moisture.</li> </ul>
Coriander	Vegetative a late sowing	and	<ul> <li>Light watering may be done to maintain soil moisture.</li> <li>For late, treat seed with Trichoderma harzianum @ 4g/kg seed is recommended to protect against soil borne diseases.</li> </ul>
Spinach (Palak)	) Vegetative		- Light watering may be done to maintain soil moisture.
Animal Sciences	, -		<i>g</i>
Name of the anim			<u></u>
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	<ol> <li>F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds.</li> <li>R<sub>2</sub>B vaccine of 8-9 weeks of age group birds (layers).</li> <li>Killed ND virus vaccine of 16-18 weeks of age group birds (layers).</li> </ol>
-	All age groups	Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
	excepts the young ones	Vaccination	Vaccinate against sheep/ goat pox and Enterotoxaemia.
	All age groups	De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
Pig	except the young ones	Care and management	<ul> <li>Mineral mixture be added in feed @10-20 g/adult animal.</li> <li>Treat drinking water with potassium permanganate/ sanitizer.</li> <li>Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds</li> </ul>
Cattle		Mites infestation	Spray with Skin Heal Spray in sufficient quantity.
	All age groups	Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
	excepts the young ones	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.
		1	1 1 1 1 0 00 051 1 1 001

#### SMS:

Lakliba Yumjakeisa faobada nong leite. Hangamda tilkhak ngakthoknaba ishing 1 litre da 2ml Chloropyriphos 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.

- Apply Lime @ 30-35 kg/ha at 30days interval.