

## ICAR Research Complex for N.E.H. Region Manipur Centre, Lamphelpat, Imphal - 795 004



#### "Gramin Krishi Mausam Seva"

## MANIPUR BULLETIN 4<sup>th</sup> March, 2016

#### 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 5<sup>th</sup> to 9<sup>th</sup> March, 2016 as below:

### Significant past weather for the preceding bi-weekly of Imphal - West (1st to 3rd March, 2016)

The sky was mainly Clear to partly cloudy. No Rainfall was recorded during past three days. Maximum temperature range observed was 27.1 – 28.0 °C, range of minimum temperature observed was 7.6 - 9.5 °C, mean relative humidity observed in morning and afternoon were 90.34 % and 37.34 % respectively. The average wind speed range was 4.2 - 4.5 km/hr.

#### Weather forecast for next five days of Imphal-East (5<sup>th</sup> to 9<sup>th</sup> March, **2016**)

There may be no rain during the next five days. The Sky will remain mainly clear to partly cloudy, with maximum temp. of 26.0 – 28.0 °C & minimum temp. 12.0 - 13.0 °C. Relative humidity may reach upto 95% (max RH) & 24 % (min RH). The average wind speed may be 3-4 km/hr. The Wind direction may be North east Easterly to South west Westerly during the next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops	1		
Rapeseed/ Mustard	Flowering		- If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
Field Pea/ Lentil	Vegetative	Powdery Mildew	- Spray Bayleton (Triademofon 25%WP) @ 7.5 g/ pump (15litre capacity) or Dinocap (Karathane 46% EC) @ 7.5ml/ pump.
		Aphid	<ul> <li>- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid.</li> <li>- For organic control against aphid, sprays that consist of Azadirachtin/ neem oil or pyrethrin may be used.</li> </ul>
Horticulture Crops	•		
Cucurbits (bottle gourd, sponge gourd, pumpkin, water melon, etc.)	Offseason		-Prepare field into fine tilt and exposed to the sun for 7-10 days to avoid multiplication of mycelium for powdery mildew.  - Spray Bayleton (Triademofon 25%WP) @ 7.5 g/pump (15litre capacity) or Ntivo (Tebuconazole 50% + Trifloxystrobin 25% W. G) at the same dose.  - Transplant seedlings of 4-stage leaves at warm temperature.
Onion	Vegetative		<ul> <li>Sufficient water should be made available for proper vegetative growth as it will result in poor bulb formation.</li> <li>If availability of water is a problem mulching material free from fungal diseases may also be used.</li> <li>Neck portion in plant should not be covered with soil</li> </ul>
Potato	For seed		<ul> <li>- Try to minimize aphid population, if it is more than 2/100 compound leaves.</li> <li>Spray Imidachlorpid (Confidor) @ 4gm/litre of water. 100gm/250 litre of water is sufficient for 1 sangam. Repeat the spray at 10-15 days.</li> <li>- remove off type plants showing mottling, mosaic, wrinkle and leaf rolling symptom.</li> <li>- Cut the haulm at ground level in Jan/Feb, in the valley. Ensure no regrowth of the stem.</li> <li>- Harvest the crop when the skin of the tuber has become firm.</li> <li>- Harvest should be done on sunny day only. Heap the produce in the shade for curing of skin and left undisturbed for 15-20 days.</li> </ul>
Tomato	Transplanting		-Transplant seedlings of 4 leaves after proper field preparation.
	Flowering		-Taking prophylactic measures against tomato fruit borer.
Animal Sciences	I		1
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	<ul> <li>To protect birds of all age groups from inclement weather, there should be adequate arrangements for artificial lighting and heating.</li> <li>Needed to increase energy giving ingredients of feed (i.e. Maize, Wheat, Bajra</li> </ul>

Ranikhet Diseases

etc.) and can be added 5% more.

Birds must be vaccinated as per recommended schedule mentioned below as the probability of occurrence of the disease is high during March- April months.



# ICAR Research Complex for N.E.H. Region Manipur Centre, Lamphelpat, Imphal - 795 004



# "Gramin Krishi Mausam Seva"

			1. F-1 Strain may be first administered within 7 days of age and second dose may
1			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).
			After that at every two months interval.
Sheep/ Goat	All age groups	PPR (Peste Des Petits	- If the animals have not yet been vaccinated, give vaccine now for PPR (Peste
	excepts the	Ruminants)	Des Petits Ruminants).
	young ones	Enterotoxemia	- If the Lambs and Kids in particular should be gien the caccination to prevent
			Enterotoxaemia.
		Ectoparasitism	- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon
			Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-
			parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in
			1 litre of water) can also be used.
Pig	All age groups	Care & management for	-Artificial lighting and heating to the piglets.
	excepts the	newly born one	-Provide adequate bedding materials.
	young ones	-	-
		Deworming	-Give Morantel citrate tablet @ 15 mg/kg of body weight.
		Ectoparasitism	- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon
			Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-
			parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in
			1 litre of water) can also be used.
		Hog Cholera	-Vaccination against swine fever must be carried out.
Cattle	All age groups	B.Q./ H.S/FMD	-If the animals have not yet been vaccinated, give vaccine, now for
	excepts the		Black Quarter, Haemorrhagic septicaemia, Foot & mouth Disease.
	young ones	Ectoparasitism	- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon
			Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-
			parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in
			1 litre of water) can also be used.
		Johnes disease & Sterility	Immediate proper treatment for the disease should be provided.
		Fodder crops	-Maize should be sown for use as green fodder.
		_	-Napier/Guinea grass may be transplanted.
			-Silage can be prepared.
		Puerperal Fever in Pregnant animals	-50-60 gram of mineral mixture every day.
		Decrease in milk production	-The milk & urine samples must be sent for testing.
1	Breedable age	Controlled breeding	-control breeding programme for animals should continue in the month of
	group	8	February so the all participating animals become pregnant during this month.
	Milch cow		-To prevent mastitis they should be milked completely.
Fishery:			· · · · · · · · · · · · · · · · · · ·
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Fries/ fingerlings/	Pond and water	-Maintain minimum depth of $1.5 - 2.0$ m by filling fresh and clean water.
	brooders		-Apply Agri-Lime in brooder pond at small quantity at an interval of 30 days
			regularly.
		Feed	
		Feed Fish	Provide feed 1-2 times @ 2 % body weight per day.
		Feed Fish	



## ICAR Research Complex for N.E.H. Region Manipur Centre, Lamphelpat, Imphal - 795 004



#### "Gramin Krishi Mausam Seva"

## MANIPUR BULLETIN 4<sup>th</sup> March, 2016

#### 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 5<sup>th</sup> to 9<sup>th</sup> March, 2016 as below:

## Significant past weather for the preceding bi-weekly of Imphal - West (1st to 3rd March, 2016)

The sky was mainly Clear to partly cloudy. No Rainfall was recorded during past three days. Maximum temperature range observed was 27.1 – 28.0 °C, range of minimum temperature observed was 7.6 - 9.5 °C, mean relative humidity observed in morning and afternoon were 90.34 % and 37.34 % respectively. The average wind speed range was 4.2 - 4.5 km/hr.

#### Weather forecast for next five days of Senapati (5<sup>th</sup> to 9<sup>th</sup> March, **2016**)

There may be no rain during the next five days. The Sky will remain mainly clear to partly cloudy, with maximum temp. of 26.0 – 28.0 °C & minimum temp. 9.0 – 12.0 °C. Relative humidity may reach upto 93% (max RH) & 24 % (min RH). The average wind speed may be 2-4 km/hr. The Wind direction may be Easterly to South west Westerly during the next five days.

Birds must be vaccinated as per recommended schedule mentioned below as the probability of occurrence of the disease is high during March- April months.

Weather Outlook for subsequent 2 days from 08th March to 10th March 2016

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops	1	•	
Rapeseed/ Mustard	Flowering		- If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
Field Pea/ Lentil	Vegetative	Powdery Mildew	- Spray Bayleton (Triademofon 25%WP) @ 7.5 g/ pump (15litre capacity) or Dinocap (Karathane 46% EC) @ 7.5ml/ pump.
		Aphid	<ul> <li>- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid.</li> <li>- For organic control against aphid, sprays that consist of Azadirachtin/ neem oil or pyrethrin may be used.</li> </ul>
Horticulture Crops			
Cucurbits (bottle gourd, sponge gourd, pumpkin, water melon, etc.)	Offseason		-Prepare field into fine tilt and exposed to the sun for 7-10 days to avoid multiplication of mycelium for powdery mildew.  - Spray Bayleton (Triademofon 25%WP) @ 7.5 g/pump (15litre capacity) or Ntivo (Tebuconazole 50% + Trifloxystrobin 25% W. G) at the same dose.  - Transplant seedlings of 4-stage leaves at warm temperature.
Onion	Vegetative		<ul> <li>Sufficient water should be made available for proper vegetative growth as it will result in poor bulb formation.</li> <li>If availability of water is a problem mulching material free from fungal diseases may also be used.</li> <li>Neck portion in plant should not be covered with soil</li> </ul>
Potato	For seed		<ul> <li>Try to minimize aphid population, if it is more than 2/100 compound leaves.</li> <li>Spray Imidachlorpid (Confidor) @ 4gm/litre of water. 100gm/250 litre of water is sufficient for 1 sangam. Repeat the spray at 10-15 days.</li> <li>remove off type plants showing mottling, mosaic, wrinkle and leaf rolling symptom.</li> <li>Cut the haulm at ground level in Jan/Feb, in the valley. Ensure no regrowth of the stem.</li> <li>Harvest the crop when the skin of the tuber has become firm.</li> <li>Harvest should be done on sunny day only. Heap the produce in the shade for curing of skin and left undisturbed for 15-20 days.</li> </ul>
Tomato	Transplanting		-Transplant seedlings of 4 leaves after proper field preparation.
	Flowering		-Taking prophylactic measures against tomato fruit borer.
Animal Sciences	1		
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	<ul> <li>To protect birds of all age groups from inclement weather, there should be adequate arrangements for artificial lighting and heating.</li> <li>Needed to increase energy giving ingredients of feed (i.e. Maize, Wheat, Bajra etc.) and can be added 5% more.</li> </ul>



# ICAR Research Complex for N.E.H. Region Manipur Centre, Lamphelpat, Imphal - 795 004



# "Gramin Krishi Mausam Seva"

			1. F-1 Strain may be first administered within 7 days of age and second dose may
			be given at 30days for all birds.
I			2. R <sub>2</sub> B vaccine of 8-9 weeks of age group birds (layers).
I			3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).
İ			After that at every two months interval.
Sheep/ Goat	All age groups	PPR (Peste Des Petits	- If the animals have not yet been vaccinated, give vaccine now for PPR (Peste
_	excepts the	Ruminants)	Des Petits Ruminants).
İ	young ones	Enterotoxemia	- If the Lambs and Kids in particular should be gien the caccination to prevent
I			Enterotoxaemia.
I		Ectoparasitism	- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon
l			Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-
			parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in
			1 litre of water) can also be used.
Pig	All age groups	Care & management for	-Artificial lighting and heating to the piglets.
I	excepts the	newly born one	-Provide adequate bedding materials.
r	young ones	Deworming	-Give Morantel citrate tablet @ 15 mg/kg of body weight.
		Ectoparasitism	- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon
1		Ectoparasitisiii	Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-
			parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in
İ			1 litre of water) can also be used.
		TT C1 1	
C 1/4		Hog Cholera	-Vaccination against swine fever must be carried out.
Cattle	All age groups	B.Q./ H.S/FMD	-If the animals have not yet been vaccinated, give vaccine, now for
I	excepts the	T (	Black Quarter, Haemorrhagic septicaemia, Foot & mouth Disease.
I	young ones	Ectoparasitism	- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon
I			Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto- parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in
I			1 litre of water) can also be used.
l		Johnes disease & Sterility	Immediate proper treatment for the disease should be provided.
		Johnes disease & Stermey	infinediate proper treatment for the disease should be provided.
- 		Fodder crops	-Maize should be sown for use as green fodder.
l			-Napier/Guinea grass may be transplanted.
<u>.                                    </u>			-Silage can be prepared.
		Puerperal Fever in	-50-60 gram of mineral mixture every day.
<u> </u>		Pregnant animals	
		Decrease in milk production	-The milk & urine samples must be sent for testing.
	Breedable age	Controlled breeding	-control breeding programme for animals should continue in the month of
	group		February so the all participating animals become pregnant during this month.
l	Milch cow	Mastitis	-To prevent mastitis they should be milked completely.
Fishery:			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Fries/ fingerlings/	Pond and water	-Maintain minimum depth of $1.5 - 2.0$ m by filling fresh and clean water.
I	brooders		-Apply Agri-Lime in brooder pond at small quantity at an interval of 30 days
I			regularly.
		Feed	Provide feed 1-2 times @ 2 % body weight per day.
l		Fish	- Male and female brooders should be stock in separate ponds for early breeding
		Fish	<ul> <li>Male and female brooders should be stock in separate ponds for early breeding programs for Common Carp.</li> <li>Harvesting of fish may be done in area where water availability is low.</li> </ul>



## ICAR Research Complex for N.E.H. Region Manipur Centre, Lamphelpat, Imphal - 795 004



### "Gramin Krishi Mausam Seva"

## MANIPUR BULLETIN 4<sup>th</sup> March, 2016

#### **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 5<sup>th</sup> to 9<sup>th</sup> March, 2016 as below:

## Significant past weather for the preceding bi-weekly of Imphal - West (1st to 3rd March, 2016)

The sky was mainly Clear to partly cloudy. No Rainfall was recorded during past three days. Maximum temperature range observed was 27.1 – 28.0 °C, range of minimum temperature observed was 7.6 - 9.5 °C, mean relative humidity observed in morning and afternoon were 90.34 % and 37.34 % respectively. The average wind speed range was 4.2 - 4.5 km/hr.

#### Weather forecast for next five days of Tamenglong (5<sup>th</sup> to 9<sup>th</sup> March, **2016**)

There may be no rain during the next five days. The Sky will remain mainly clear to partly cloudy, with maximum temp. of 27.0 – 29.0 °C & minimum temp. 10.0 – 13.0 °C. Relative humidity may reach upto 88% (max RH) & 25 % (min RH). The average wind speed may be 2-4 km/hr. The Wind direction may be Easterly to South south Easterly during the next five days.

Birds must be vaccinated as per recommended schedule mentioned below as the probability of occurrence of the disease is high during March- April months.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops	I.	I.	
Rapeseed/ Mustard	Flowering		- If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
Field Pea/ Lentil	Vegetative	Powdery Mildew	- Spray Bayleton (Triademofon 25%WP) @ 7.5 g/ pump (15litre capacity) or Dinocap (Karathane 46% EC) @ 7.5ml/ pump.
		Aphid	<ul> <li>- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid.</li> <li>- For organic control against aphid, sprays that consist of Azadirachtin/ neem oil or pyrethrin may be used.</li> </ul>
Horticulture Crops	•		
Cucurbits (bottle gourd, sponge gourd, pumpkin, water melon, etc.)	Offseason		-Prepare field into fine tilt and exposed to the sun for 7-10 days to avoid multiplication of mycelium for powdery mildew.  - Spray Bayleton (Triademofon 25%WP) @ 7.5 g/ pump (15litre capacity) or Ntivo (Tebuconazole 50% + Trifloxystrobin 25% W. G) at the same dose.  - Transplant seedlings of 4-stage leaves at warm temperature.
Onion	Vegetative		<ul> <li>Sufficient water should be made available for proper vegetative growth as it will result in poor bulb formation.</li> <li>If availability of water is a problem mulching material free from fungal diseases may also be used.</li> <li>Neck portion in plant should not be covered with soil</li> </ul>
Potato	For seed		<ul> <li>- Try to minimize aphid population, if it is more than 2/100 compound leaves.</li> <li>Spray Imidachlorpid (Confidor) @ 4gm/litre of water. 100gm/250 litre of water is sufficient for 1 sangam. Repeat the spray at 10-15 days.</li> <li>- remove off type plants showing mottling, mosaic, wrinkle and leaf rolling symptom.</li> <li>- Cut the haulm at ground level in Jan/Feb, in the valley. Ensure no regrowth of the stem.</li> <li>- Harvest the crop when the skin of the tuber has become firm.</li> <li>- Harvest should be done on sunny day only. Heap the produce in the shade for curing of skin and left undisturbed for 15-20 days.</li> </ul>
Tomato	Transplanting		-Transplant seedlings of 4 leaves after proper field preparation.
	Flowering		-Taking prophylactic measures against tomato fruit borer.
Animal Sciences	1	L	
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	<ul> <li>To protect birds of all age groups from inclement weather, there should be adequate arrangements for artificial lighting and heating.</li> <li>Needed to increase energy giving ingredients of feed (i.e. Maize, Wheat, Bajra etc.) and can be added 5% more.</li> </ul>



# ICAR Research Complex for N.E.H. Region Manipur Centre, Lamphelpat, Imphal - 795 004



# "Gramin Krishi Mausam Seva"

			1. F-1 Strain may be first administered within 7 days of age and second dose may
1			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).
			After that at every two months interval.
Sheep/ Goat	All age groups	PPR (Peste Des Petits	- If the animals have not yet been vaccinated, give vaccine now for PPR (Peste
	excepts the	Ruminants)	Des Petits Ruminants).
	young ones	Enterotoxemia	- If the Lambs and Kids in particular should be gien the caccination to prevent
			Enterotoxaemia.
		Ectoparasitism	- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon
			Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-
			parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in
			1 litre of water) can also be used.
Pig	All age groups	Care & management for	-Artificial lighting and heating to the piglets.
	excepts the	newly born one	-Provide adequate bedding materials.
	young ones	-	-
		Deworming	-Give Morantel citrate tablet @ 15 mg/kg of body weight.
		Ectoparasitism	- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon
			Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-
			parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in
			1 litre of water) can also be used.
		Hog Cholera	-Vaccination against swine fever must be carried out.
Cattle	All age groups	B.Q./ H.S/FMD	-If the animals have not yet been vaccinated, give vaccine, now for
	excepts the		Black Quarter, Haemorrhagic septicaemia, Foot & mouth Disease.
	young ones	Ectoparasitism	- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon
			Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-
			parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in
			1 litre of water) can also be used.
		Johnes disease & Sterility	Immediate proper treatment for the disease should be provided.
		Fodder crops	-Maize should be sown for use as green fodder.
		_	-Napier/Guinea grass may be transplanted.
			-Silage can be prepared.
		Puerperal Fever in Pregnant animals	-50-60 gram of mineral mixture every day.
		Decrease in milk production	-The milk & urine samples must be sent for testing.
1	Breedable age	Controlled breeding	-control breeding programme for animals should continue in the month of
	group	8	February so the all participating animals become pregnant during this month.
	Milch cow		-To prevent mastitis they should be milked completely.
Fishery:			· · · · · · · · · · · · · · · · · · ·
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Fries/ fingerlings/	Pond and water	-Maintain minimum depth of $1.5 - 2.0$ m by filling fresh and clean water.
	brooders		-Apply Agri-Lime in brooder pond at small quantity at an interval of 30 days
			regularly.
		Feed	
		Feed Fish	Provide feed 1-2 times @ 2 % body weight per day.
		Feed Fish	



## ICAR Research Complex for N.E.H. Region Manipur Centre, Lamphelpat, Imphal - 795 004



### "Gramin Krishi Mausam Seva"

## MANIPUR BULLETIN 4<sup>th</sup> March, 2016

#### **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 5<sup>th</sup> to 9<sup>th</sup> March, 2016 as below:

### Significant past weather for the preceding bi-weekly of Imphal - West (1st to 3rd March, 2016)

The sky was mainly Clear to partly cloudy. No Rainfall was recorded during past three days. Maximum temperature range observed was 27.1 – 28.0 °C, range of minimum temperature observed was 7.6 - 9.5 °C, mean relative humidity observed in morning and afternoon were 90.34 % and 37.34 % respectively. The average wind speed range was 4.2 - 4.5 km/hr.

#### Weather forecast for next five days of Thoubal (5<sup>th</sup> to 9<sup>th</sup> March, **2016**)

There may be no rain during the next five days. The Sky will remain mainly clear to partly cloudy, with maximum temp. of 27.0 – 29.0 °C & minimum temp. 12.0 - 13.0 °C. Relative humidity may reach upto 89% (max RH) & 26 % (min RH). The average wind speed may be 4-6 km/hr. The Wind direction may be South south Easterly to Westerly during the next five days.

Birds must be vaccinated as per recommended schedule mentioned below as the probability of occurrence of the disease is high during March- April months.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops		I.	
Rapeseed/ Mustard	Flowering		- If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
Field Pea/ Lentil	Vegetative	Powdery Mildew	- Spray Bayleton (Triademofon 25%WP) @ 7.5 g/ pump (15litre capacity) or Dinocap (Karathane 46% EC) @ 7.5ml/ pump.
		Aphid	<ul> <li>- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid.</li> <li>- For organic control against aphid, sprays that consist of Azadirachtin/ neem oil or pyrethrin may be used.</li> </ul>
Horticulture Crops			
Cucurbits (bottle gourd, sponge gourd, pumpkin, water melon, etc.)	Offseason		-Prepare field into fine tilt and exposed to the sun for 7-10 days to avoid multiplication of mycelium for powdery mildew.  - Spray Bayleton (Triademofon 25%WP) @ 7.5 g/ pump (15litre capacity) or Ntivo (Tebuconazole 50% + Trifloxystrobin 25% W. G) at the same dose.  - Transplant seedlings of 4-stage leaves at warm temperature.
Onion	Vegetative		<ul> <li>Sufficient water should be made available for proper vegetative growth as it will result in poor bulb formation.</li> <li>If availability of water is a problem mulching material free from fungal diseases may also be used.</li> <li>Neck portion in plant should not be covered with soil</li> </ul>
Potato	For seed		<ul> <li>Try to minimize aphid population, if it is more than 2/100 compound leaves.</li> <li>Spray Imidachlorpid (Confidor) @ 4gm/litre of water. 100gm/250 litre of water is sufficient for 1 sangam. Repeat the spray at 10-15 days.</li> <li>remove off type plants showing mottling, mosaic, wrinkle and leaf rolling symptom.</li> <li>Cut the haulm at ground level in Jan/Feb, in the valley. Ensure no regrowth of the stem.</li> <li>Harvest the crop when the skin of the tuber has become firm.</li> <li>Harvest should be done on sunny day only. Heap the produce in the shade for curing of skin and left undisturbed for 15-20 days.</li> </ul>
Tomato	Transplanting		-Transplant seedlings of 4 leaves after proper field preparation.
	Flowering		-Taking prophylactic measures against tomato fruit borer.
Animal Sciences	1	L	
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	<ul> <li>To protect birds of all age groups from inclement weather, there should be adequate arrangements for artificial lighting and heating.</li> <li>Needed to increase energy giving ingredients of feed (i.e. Maize, Wheat, Bajra etc.) and can be added 5% more.</li> </ul>



## ICAR Research Complex for N.E.H. Region Manipur Centre, Lamphelpat, Imphal - 795 004



## "Gramin Krishi Mausam Seva"

			1. F-1 Strain may be first administered within 7 days of age and second dose may
İ			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).
			After that at every two months interval.
Sheep/ Goat	All age groups	PPR (Peste Des Petits	- If the animals have not yet been vaccinated, give vaccine now for PPR (Peste
	excepts the	Ruminants)	Des Petits Ruminants).
	young ones	Enterotoxemia	- If the Lambs and Kids in particular should be gien the caccination to prevent
			Enterotoxaemia.
ı		Ectoparasitism	- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon
		•	Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-
			parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in
			1 litre of water) can also be used.
Pig	All age groups	Care & management for	-Artificial lighting and heating to the piglets.
ı	excepts the	newly born one	-Provide adequate bedding materials.
	young ones	Deworming	-Give Morantel citrate tablet @ 15 mg/kg of body weight.
		Ectoparasitism	- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon
		Ectoparasitism	Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-
			parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in
I			1 litre of water) can also be used.
		TT C1 1	,
G 10		Hog Cholera	-Vaccination against swine fever must be carried out.
Cattle	All age groups	B.Q./ H.S/FMD	-If the animals have not yet been vaccinated, give vaccine, now for
	excepts the		Black Quarter, Haemorrhagic septicaemia, Foot & mouth Disease.
I	young ones	Ectoparasitism	- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon
İ			Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-
İ			parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in
		Johnes disease & Sterility	1 litre of water) can also be used.  Immediate proper treatment for the disease should be provided.
1		Joines disease & Stermty	infinediate proper treatment for the disease should be provided.
		Fodder crops	-Maize should be sown for use as green fodder.
ı		_	-Napier/Guinea grass may be transplanted.
·			-Silage can be prepared.
		Puerperal Fever in	-50-60 gram of mineral mixture every day.
		Pregnant animals	
		Decrease in milk production	-The milk & urine samples must be sent for testing.
ĺ	Breedable age	Controlled breeding	-control breeding programme for animals should continue in the month of
I	group		February so the all participating animals become pregnant during this month.
	Milch cow	Mastitis	-To prevent mastitis they should be milked completely.
Fishery:		<u></u>	
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Fries/ fingerlings/	Pond and water	-Maintain minimum depth of $1.5 - 2.0$ m by filling fresh and clean water.
İ	brooders		-Apply Agri-Lime in brooder pond at small quantity at an interval of 30 days
İ			regularly.
		Feed	Provide feed 1-2 times @ 2 % body weight per day.
		Fish	- Male and female brooders should be stock in separate ponds for early breeding
İ			programs for Common Carp.
<u>i</u>			- Harvesting of fish may be done in area where water availability is low.
•	<u>-                                    </u>	·	



## ICAR Research Complex for N.E.H. Region Manipur Centre, Lamphelpat, Imphal - 795 004



#### "Gramin Krishi Mausam Seva"

## MANIPUR BULLETIN 4<sup>th</sup> March, 2016

#### 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 5<sup>th</sup> to 9<sup>th</sup> March, 2016 as below:

## Significant past weather for the preceding bi-weekly of Imphal - West (1st to 3rd March, 2016)

The sky was mainly Clear to partly cloudy. No Rainfall was recorded during past three days. Maximum temperature range observed was 27.1 – 28.0 °C, range of minimum temperature observed was 7.6 - 9.5 °C, mean relative humidity observed in morning and afternoon were 90.34 % and 37.34 % respectively. The average wind speed range was 4.2 - 4.5 km/hr.

#### Weather forecast for next five days of Ukhrul (5<sup>th</sup> to 9<sup>th</sup> March, **2016**)

Likely to have light rain during the next five days. The Sky will remain mainly clear to partly cloudy, with maximum temp. of 28.0 -30.0 °C & minimum temp. 12.0 – 13.0 °C. Relative humidity may reach upto 81% (max RH) & 27 % (min RH). The average wind speed may be 4- 5 km/hr. The Wind direction may be South Westerly to North west Westerly during the next five days.

Birds must be vaccinated as per recommended schedule mentioned below as the probability of occurrence of the disease is high during March- April months.

Weather Outlook for subsequent 2 days from 08th March to 10th March 2016

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops	1	1	
Rapeseed/ Mustard	Flowering		- If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
Field Pea/ Lentil	Vegetative	Powdery Mildew	- Spray Bayleton (Triademofon 25%WP) @ 7.5 g/ pump (15litre capacity) or Dinocap (Karathane 46% EC) @ 7.5ml/ pump.
		Aphid	<ul> <li>- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid.</li> <li>- For organic control against aphid, sprays that consist of Azadirachtin/ neem oil or pyrethrin may be used.</li> </ul>
Horticulture Crops			
Cucurbits (bottle gourd, sponge gourd, pumpkin, water melon, etc.)	Offseason		-Prepare field into fine tilt and exposed to the sun for 7-10 days to avoid multiplication of mycelium for powdery mildew.  - Spray Bayleton (Triademofon 25%WP) @ 7.5 g/pump (15litre capacity) or Ntivo (Tebuconazole 50% + Trifloxystrobin 25% W. G) at the same dose.  - Transplant seedlings of 4-stage leaves at warm temperature.
Onion	Vegetative		<ul> <li>- Sufficient water should be made available for proper vegetative growth as it will result in poor bulb formation.</li> <li>- If availability of water is a problem mulching material free from fungal diseases may also be used.</li> <li>- Neck portion in plant should not be covered with soil</li> </ul>
Potato	For seed		<ul> <li>Try to minimize aphid population, if it is more than 2/100 compound leaves.</li> <li>Spray Imidachlorpid (Confidor) @ 4gm/litre of water. 100gm/250 litre of water is sufficient for 1 sangam. Repeat the spray at 10-15 days.</li> <li>remove off type plants showing mottling, mosaic, wrinkle and leaf rolling symptom.</li> <li>Cut the haulm at ground level in Jan/Feb, in the valley. Ensure no regrowth of the stem.</li> <li>Harvest the crop when the skin of the tuber has become firm.</li> <li>Harvest should be done on sunny day only. Heap the produce in the shade for curing of skin and left undisturbed for 15-20 days.</li> </ul>
Tomato	Transplanting		-Transplant seedlings of 4 leaves after proper field preparation.
	Flowering		-Taking prophylactic measures against tomato fruit borer.
Animal Sciences	L		
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	- To protect birds of all age groups from inclement weather, there should be adequate arrangements for artificial lighting and heating Needed to increase energy giving ingredients of feed (i.e. Maize, Wheat, Bajra etc.) and can be added 5% more.



## ICAR Research Complex for N.E.H. Region Manipur Centre, Lamphelpat, Imphal - 795 004



## "Gramin Krishi Mausam Seva"

			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).
			After that at every two months interval.
Sheep/ Goat	All age groups	PPR (Peste Des Petits	- If the animals have not yet been vaccinated, give vaccine now for PPR (Peste
	excepts the	Ruminants)	Des Petits Ruminants).
	young ones	Enterotoxemia	- If the Lambs and Kids in particular should be gien the caccination to prevent
			Enterotoxaemia.
		Ectoparasitism	- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon
			Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-
			parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in
~~	A 11	~ ^	1 litre of water) can also be used.
Pig	All age groups	Care & management for	-Artificial lighting and heating to the piglets.
	excepts the young ones	newly born one	-Provide adequate bedding materials.
	young ones	Deworming	-Give Morantel citrate tablet @ 15 mg/kg of body weight.
		Ectoparasitism	- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon
		·	Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-
			parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in
			1 litre of water) can also be used.
		Hog Cholera	-Vaccination against swine fever must be carried out.
Cattle	All age groups	B.Q./ H.S/FMD	-If the animals have not yet been vaccinated, give vaccine, now for
	excepts the		Black Quarter, Haemorrhagic septicaemia, Foot & mouth Disease.
	young ones	Ectoparasitism	- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon
			Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-
			parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in
		T 1 Linguis & Ctarility	1 litre of water) can also be used.
		Johnes disease & Sterility	Immediate proper treatment for the disease should be provided.
		Fodder crops	-Maize should be sown for use as green fodder.
			-Napier/Guinea grass may be transplanted.
			-Silage can be prepared.
		Puerperal Fever in Pregnant animals	-50-60 gram of mineral mixture every day.
		Decrease in milk production	-The milk & urine samples must be sent for testing.
	Breedable age group	Controlled breeding	-control breeding programme for animals should continue in the month of February so the all participating animals become pregnant during this month.
	Milch cow	Mastitis	-To prevent mastitis they should be milked completely.
Fishery:			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Fries/ fingerlings/	8	-Maintain minimum depth of $1.5 - 2.0$ m by filling fresh and clean water.
	brooders		-Apply Agri-Lime in brooder pond at small quantity at an interval of 30 days
			regularly.
			Provide feed 1-2 times @ 2 % body weight per day.
			A
			- Male and female brooders should be stock in separate ponds for early breeding
			<ul> <li>Male and remale brooders should be stock in separate ponds for early breeding programs for Common Carp.</li> <li>Harvesting of fish may be done in area where water availability is low.</li> </ul>



## ICAR Research Complex for N.E.H. Region Manipur Centre, Lamphelpat, Imphal - 795 004



### "Gramin Krishi Mausam Seva"

## MANIPUR BULLETIN 4<sup>th</sup> March, 2016

#### 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 5<sup>th</sup> to 9<sup>th</sup> March, 2016 as below:

## Significant past weather for the preceding bi-weekly of Imphal - West (1st to 3rd March, 2016)

The sky was mainly Clear to partly cloudy. No Rainfall was recorded during past three days. Maximum temperature range observed was 27.1 – 28.0 °C, range of minimum temperature observed was 7.6 - 9.5 °C, mean relative humidity observed in morning and afternoon were 90.34 % and 37.34 % respectively. The average wind speed range was 4.2 - 4.5 km/hr.

#### Weather forecast for next five days of Bishnupur (5<sup>th</sup> to 9<sup>th</sup> March, **2016**)

There may be no rain during the next five days. The Sky will remain mainly clear to partly cloudy, with maximum temp. of 28.0 – 30.0 °C & minimum temp. 12.0 – 13.0 °C. Relative humidity may reach upto 86% (max RH) & 25 % (min RH). The average wind speed may be 3-4 km/hr. The Wind direction may be South Easterly to South Westerly during next five days.

Birds must be vaccinated as per recommended schedule mentioned below as the probability of occurrence of the disease is high during March- April months.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Rapeseed/ Mustard	Flowering		- If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
Field Pea/ Lentil	Vegetative	Powdery Mildew	- Spray Bayleton (Triademofon 25%WP) @ 7.5 g/ pump (15litre capacity) or Dinocap (Karathane 46% EC) @ 7.5ml/ pump.
		Aphid	<ul> <li>- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid.</li> <li>- For organic control against aphid, sprays that consist of Azadirachtin/ neem oil or pyrethrin may be used.</li> </ul>
Horticulture Crops	•		
Cucurbits (bottle gourd, sponge gourd, pumpkin, water melon, etc.)	Offseason		-Prepare field into fine tilt and exposed to the sun for 7-10 days to avoid multiplication of mycelium for powdery mildew.  - Spray Bayleton (Triademofon 25%WP) @ 7.5 g/ pump (15litre capacity) or Ntivo (Tebuconazole 50% + Trifloxystrobin 25% W. G) at the same dose.  - Transplant seedlings of 4-stage leaves at warm temperature.
Onion	Vegetative		<ul> <li>Sufficient water should be made available for proper vegetative growth as it will result in poor bulb formation.</li> <li>If availability of water is a problem mulching material free from fungal diseases may also be used.</li> <li>Neck portion in plant should not be covered with soil</li> </ul>
Potato	For seed		<ul> <li>- Try to minimize aphid population, if it is more than 2/100 compound leaves.</li> <li>Spray Imidachlorpid (Confidor) @ 4gm/litre of water. 100gm/250 litre of water is sufficient for 1 sangam. Repeat the spray at 10-15 days.</li> <li>- remove off type plants showing mottling, mosaic, wrinkle and leaf rolling symptom.</li> <li>- Cut the haulm at ground level in Jan/Feb, in the valley. Ensure no regrowth of the stem.</li> <li>- Harvest the crop when the skin of the tuber has become firm.</li> <li>- Harvest should be done on sunny day only. Heap the produce in the shade for curing of skin and left undisturbed for 15-20 days.</li> </ul>
Tomato	Transplanting		-Transplant seedlings of 4 leaves after proper field preparation.
	Flowering		-Taking prophylactic measures against tomato fruit borer.
Animal Sciences	1		1
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	<ul> <li>To protect birds of all age groups from inclement weather, there should be adequate arrangements for artificial lighting and heating.</li> <li>Needed to increase energy giving ingredients of feed (i.e. Maize, Wheat, Bajra etc.) and can be added 5% more.</li> </ul>
		I D 111 D:	1 = 1



# ICAR Research Complex for N.E.H. Region Manipur Centre, Lamphelpat, Imphal - 795 004



## "Gramin Krishi Mausam Seva"

		_	
			<ul> <li>1. 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>2. R<sub>2</sub>B vaccine of 8-9 weeks of age group birds (layers).</li> </ul>
			3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).
			After that at every two months interval.
Sheep/ Goat	All age groups	PPR (Peste Des Petits	- If the animals have not yet been vaccinated, give vaccine now for PPR (Peste
	excepts the	Ruminants)	Des Petits Ruminants).
	young ones	Enterotoxemia	- If the Lambs and Kids in particular should be gien the caccination to prevent Enterotoxaemia.
		Ectoparasitism	- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon
		Ectoparasitisiii	Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto- parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used.
Pig	All age groups excepts the	Care & management for newly born one	-Artificial lighting and heating to the pigletsProvide adequate bedding materials.
	young ones	Deworming	-Give Morantel citrate tablet @ 15 mg/kg of body weight.
		Ectoparasitism	- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ectoparasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used.
		Hog Cholera	-Vaccination against swine fever must be carried out.
Cattle	All age groups excepts the	B.Q./ H.S/FMD	-If the animals have not yet been vaccinated, give vaccine, now for Black Quarter, Haemorrhagic septicaemia, Foot & mouth Disease.
	young ones	Ectoparasitism	- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ectoparasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used.
		Johnes disease & Sterility	Immediate proper treatment for the disease should be provided.
		Fodder crops	-Maize should be sown for use as green fodderNapier/Guinea grass may be transplantedSilage can be prepared.
		Puerperal Fever in Pregnant animals	-50-60 gram of mineral mixture every day.
		Decrease in milk production	-The milk & urine samples must be sent for testing.
	Breedable age group	Controlled breeding	-control breeding programme for animals should continue in the month of February so the all participating animals become pregnant during this month.
	Milch cow		-To prevent mastitis they should be milked completely.
Fishery:	<u>.</u>		
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Fries/ fingerlings/ brooders	Pond and water	-Maintain minimum depth of $1.5 - 2.0$ m by filling fresh and clean waterApply Agri-Lime in brooder pond at small quantity at an interval of 30 days regularly.
		Feed	Provide feed 1-2 times @ 2 % body weight per day.
		Fish	- Male and female brooders should be stock in separate ponds for early breeding programs for Common Carp.
			- Harvesting of fish may be done in area where water availability is low.



## ICAR Research Complex for N.E.H. Region Manipur Centre, Lamphelpat, Imphal - 795 004



#### "Gramin Krishi Mausam Seva"

## MANIPUR BULLETIN 4<sup>th</sup> March, 2016

#### 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 5<sup>th</sup> to 9<sup>th</sup> March, 2016 as below:

### Significant past weather for the preceding bi-weekly of Imphal - West (1st to 3rd March, 2016)

The sky was mainly Clear to partly cloudy. No Rainfall was recorded during past three days. Maximum temperature range observed was 27.1 – 28.0 °C, range of minimum temperature observed was 7.6 - 9.5 °C, mean relative humidity observed in morning and afternoon were 90.34 % and 37.34 % respectively. The average wind speed range was 4.2 - 4.5 km/hr.

#### Weather forecast for next five days of Chandel (5<sup>th</sup> to 9<sup>th</sup> March, **2016**)

Likely to have light rain during the next five days. The Sky will remain mainly clear to partly cloudy, with maximum temp. of 27.0 -29.0 °C & minimum temp. 12.0 – 13.0 °C. Relative humidity may reach upto 80% (max RH) & 27 % (min RH). The average wind speed may be 4-5 km/hr. The Wind direction may be South west Westerly to North west Westerly during the next five days.

Weather Outlook for subsequent 2 days from 08th March to 10th March 2016

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Rapeseed/ Mustard	Flowering		- If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
Field Pea/ Lentil	Vegetative	Powdery Mildew	- Spray Bayleton (Triademofon 25%WP) @ 7.5 g/ pump (15litre capacity) or Dinocap (Karathane 46% EC) @ 7.5ml/ pump.
		Aphid	<ul> <li>Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid.</li> <li>For organic control against aphid, sprays that consist of Azadirachtin/ neem oil or pyrethrin may be used.</li> </ul>
Horticulture Crops	<u> </u>		or pyrounin may or usous
Cucurbits (bottle gourd, sponge gourd, pumpkin, water melon, etc.)	Offseason		-Prepare field into fine tilt and exposed to the sun for 7-10 days to avoid multiplication of mycelium for powdery mildew.  - Spray Bayleton (Triademofon 25%WP) @ 7.5 g/pump (15litre capacity) or Ntivo (Tebuconazole 50% + Trifloxystrobin 25% W. G) at the same dose.  - Transplant seedlings of 4-stage leaves at warm temperature.
Onion	Vegetative		<ul> <li>Sufficient water should be made available for proper vegetative growth as it will result in poor bulb formation.</li> <li>If availability of water is a problem mulching material free from fungal diseases may also be used.</li> <li>Neck portion in plant should not be covered with soil</li> </ul>
Potato	For seed		<ul> <li>Try to minimize aphid population, if it is more than 2/100 compound leaves.</li> <li>Spray Imidachlorpid (Confidor) @ 4gm/litre of water. 100gm/250 litre of water is sufficient for 1 sangam. Repeat the spray at 10-15 days.</li> <li>remove off type plants showing mottling, mosaic, wrinkle and leaf rolling symptom.</li> <li>Cut the haulm at ground level in Jan/Feb, in the valley. Ensure no regrowth of the stem.</li> <li>Harvest the crop when the skin of the tuber has become firm.</li> <li>Harvest should be done on sunny day only. Heap the produce in the shade for curing of skin and left undisturbed for 15-20 days.</li> </ul>
Tomato	Transplanting		-Transplant seedlings of 4 leaves after proper field preparation.
	Flowering		-Taking prophylactic measures against tomato fruit borer.
Animal Sciences	1		
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	- To protect birds of all age groups from inclement weather, there should be adequate arrangements for artificial lighting and heating.  - Needed to increase energy giving ingredients of feed (i.e. Maize, Wheat, Bajra

Ranikhet Diseases

etc.) and can be added 5% more.

Birds must be vaccinated as per recommended schedule mentioned below as the probability of occurrence of the disease is high during March- April months.



# ICAR Research Complex for N.E.H. Region Manipur Centre, Lamphelpat, Imphal - 795 004



## "Gramin Krishi Mausam Seva"

			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).
			After that at every two months interval.
Sheep/ Goat	All age groups	PPR (Peste Des Petits	- If the animals have not yet been vaccinated, give vaccine now for PPR (Peste
	excepts the	Ruminants)	Des Petits Ruminants).
	young ones	Enterotoxemia	- If the Lambs and Kids in particular should be gien the caccination to prevent
	, , ,		Enterotoxaemia.
		Ectoparasitism	- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon
		1	Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-
			parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in
			1 litre of water) can also be used.
Pig	All age groups	Care & management for	-Artificial lighting and heating to the piglets.
	excepts the	newly born one	-Provide adequate bedding materials.
	young ones	-	
		Deworming	-Give Morantel citrate tablet @ 15 mg/kg of body weight.
		Ectoparasitism	- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon
			Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-
			parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in
			1 litre of water) can also be used.
		Hog Cholera	-Vaccination against swine fever must be carried out.
Cattle	All age groups	B.Q./ H.S/FMD	-If the animals have not yet been vaccinated, give vaccine, now for
	excepts the		Black Quarter, Haemorrhagic septicaemia, Foot & mouth Disease.
	young ones	Ectoparasitism	- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon
			Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-
			parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in
			1 litre of water) can also be used.
		Johnes disease & Sterility	Immediate proper treatment for the disease should be provided.
		Fodder crops	-Maize should be sown for use as green fodder.
			-Napier/Guinea grass may be transplanted.
			-Silage can be prepared.
		Puerperal Fever in Pregnant animals	-50-60 gram of mineral mixture every day.
		Decrease in milk	-The milk & urine samples must be sent for testing.
	D 111	production	
	Breedable age	Controlled breeding	-control breeding programme for animals should continue in the month of
	group	No. die	February so the all participating animals become pregnant during this month.
	Milch cow	Mastitis	-To prevent mastitis they should be milked completely.
Fishery:			
Type of Farming Stage		Management	Agro-metrological advisories
Carp culture	Fries/ fingerlings/ brooders	Pond and water	-Maintain minimum depth of 1.5 – 2.0 m by filling fresh and clean waterApply Agri-Lime in brooder pond at small quantity at an interval of 30 days
			regularly.
		Feed	Provide feed 1-2 times @ 2 % body weight per day.
		Fish	- Male and female brooders should be stock in separate ponds for early breeding
		Fish	<ul> <li>Male and female brooders should be stock in separate ponds for early breeding programs for Common Carp.</li> <li>Harvesting of fish may be done in area where water availability is low.</li> </ul>



## ICAR Research Complex for N.E.H. Region Manipur Centre, Lamphelpat, Imphal - 795 004



### "Gramin Krishi Mausam Seva"

## MANIPUR BULLETIN 4<sup>th</sup> March, 2016

#### 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 5<sup>th</sup> to 9<sup>th</sup> March, 2016 as below:

## Significant past weather for the preceding bi-weekly of Imphal - West (1st to 3rd March, 2016)

The sky was mainly Clear to partly cloudy. No Rainfall was recorded during past three days. Maximum temperature range observed was 27.1 – 28.0 °C, range of minimum temperature observed was 7.6 - 9.5 °C, mean relative humidity observed in morning and afternoon were 90.34 % and 37.34 % respectively. The average wind speed range was 4.2 - 4.5 km/hr.

#### Weather forecast for next five days of Imphal-West (5<sup>th</sup> to 9<sup>th</sup> March, **2016**)

There may be no rain during the next five days. The Sky will remain mainly clear to partly cloudy, with maximum temp. of 27.0 – 29.0 °C & minimum temp. 11.0 – 13.0 °C. Relative humidity may reach upto 93% (max RH) & 24 % (min RH). The average wind speed may be 2-4 km/hr. The Wind direction may be North east Easterly to South south Westerly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops	1		
Rapeseed/ Mustard	Flowering		- If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
Field Pea/ Lentil	Vegetative	Powdery Mildew	- Spray Bayleton (Triademofon 25%WP) @ 7.5 g/ pump (15litre capacity) or Dinocap (Karathane 46% EC) @ 7.5ml/ pump.
		Aphid	<ul> <li>Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid.</li> <li>For organic control against aphid, sprays that consist of Azadirachtin/ neem oil or pyrethrin may be used.</li> </ul>
Horticulture Crops	•		
Cucurbits (bottle gourd, sponge gourd, pumpkin, water melon, etc.)	Offseason		-Prepare field into fine tilt and exposed to the sun for 7-10 days to avoid multiplication of mycelium for powdery mildew.  - Spray Bayleton (Triademofon 25%WP) @ 7.5 g/pump (15litre capacity) or Ntivo (Tebuconazole 50% + Trifloxystrobin 25% W. G) at the same dose.  - Transplant seedlings of 4-stage leaves at warm temperature.
Onion	Vegetative		<ul> <li>Sufficient water should be made available for proper vegetative growth as it will result in poor bulb formation.</li> <li>If availability of water is a problem mulching material free from fungal diseases may also be used.</li> <li>Neck portion in plant should not be covered with soil</li> </ul>
Potato	For seed		<ul> <li>Try to minimize aphid population, if it is more than 2/100 compound leaves.</li> <li>Spray Imidachlorpid (Confidor) @ 4gm/litre of water. 100gm/250 litre of water is sufficient for 1 sangam. Repeat the spray at 10-15 days.</li> <li>remove off type plants showing mottling, mosaic, wrinkle and leaf rolling symptom.</li> <li>Cut the haulm at ground level in Jan/Feb, in the valley. Ensure no regrowth of the stem.</li> <li>Harvest the crop when the skin of the tuber has become firm.</li> <li>Harvest should be done on sunny day only. Heap the produce in the shade for curing of skin and left undisturbed for 15-20 days.</li> </ul>
Tomato	Transplanting		-Transplant seedlings of 4 leaves after proper field preparation.
	Flowering		-Taking prophylactic measures against tomato fruit borer.
Animal Sciences	I		1
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	<ul> <li>To protect birds of all age groups from inclement weather, there should be adequate arrangements for artificial lighting and heating.</li> <li>Needed to increase energy giving ingredients of feed (i.e. Maize, Wheat, Bajra</li> </ul>

Ranikhet Diseases

etc.) and can be added 5% more.

Birds must be vaccinated as per recommended schedule mentioned below as the probability of occurrence of the disease is high during March- April months.



# ICAR Research Complex for N.E.H. Region Manipur Centre, Lamphelpat, Imphal - 795 004



## "Gramin Krishi Mausam Seva"

			1. F-1 Strain may be first administered within 7 days of age and second dose may
İ			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).
			After that at every two months interval.
Sheep/ Goat	All age groups	PPR (Peste Des Petits	- If the animals have not yet been vaccinated, give vaccine now for PPR (Peste
	excepts the	Ruminants)	Des Petits Ruminants).
	young ones	Enterotoxemia	- If the Lambs and Kids in particular should be gien the caccination to prevent
			Enterotoxaemia.
ı		Ectoparasitism	- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon
		•	Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-
			parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in
			1 litre of water) can also be used.
Pig	All age groups	Care & management for	-Artificial lighting and heating to the piglets.
ı	excepts the	newly born one	-Provide adequate bedding materials.
	young ones	Deworming	-Give Morantel citrate tablet @ 15 mg/kg of body weight.
		Ectoparasitism	- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon
		Ectoparasitism	Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-
			parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in
I			1 litre of water) can also be used.
		TT C1 1	,
G 10		Hog Cholera	-Vaccination against swine fever must be carried out.
Cattle	All age groups	B.Q./ H.S/FMD	-If the animals have not yet been vaccinated, give vaccine, now for
ı	excepts the	<b>D</b>	Black Quarter, Haemorrhagic septicaemia, Foot & mouth Disease.
I	young ones	Ectoparasitism	- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon
İ			Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-
İ			parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in
		Johnes disease & Sterility	1 litre of water) can also be used.  Immediate proper treatment for the disease should be provided.
1		Joines disease & Stermty	infinediate proper treatment for the disease should be provided.
·		Fodder crops	-Maize should be sown for use as green fodder.
ı		-	-Napier/Guinea grass may be transplanted.
·			-Silage can be prepared.
		Puerperal Fever in	-50-60 gram of mineral mixture every day.
		Pregnant animals	
		Decrease in milk production	-The milk & urine samples must be sent for testing.
ĺ	Breedable age	Controlled breeding	-control breeding programme for animals should continue in the month of
I	group		February so the all participating animals become pregnant during this month.
	Milch cow	Mastitis	-To prevent mastitis they should be milked completely.
Fishery:		<u>-</u>	
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Fries/ fingerlings/	Pond and water	-Maintain minimum depth of $1.5 - 2.0$ m by filling fresh and clean water.
İ	brooders		-Apply Agri-Lime in brooder pond at small quantity at an interval of 30 days
İ			regularly.
		Feed	Provide feed 1-2 times @ 2 % body weight per day.
		Fish	- Male and female brooders should be stock in separate ponds for early breeding
İ			programs for Common Carp.
			- Harvesting of fish may be done in area where water availability is low.
•	<u>-                                    </u>	·	



## ICAR Research Complex for N.E.H. Region Manipur Centre, Lamphelpat, Imphal - 795 004



#### "Gramin Krishi Mausam Seva"

## MANIPUR BULLETIN 4<sup>th</sup> March, 2016

#### 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 5<sup>th</sup> to 9<sup>th</sup> March, 2016 as below:

### Significant past weather for the preceding bi-weekly of Imphal - West (1st to 3rd March, 2016)

The sky was mainly Clear to partly cloudy. No Rainfall was recorded during past three days. Maximum temperature range observed was 27.1 – 28.0 °C, range of minimum temperature observed was 7.6 - 9.5 °C, mean relative humidity observed in morning and afternoon were 90.34 % and 37.34 % respectively. The average wind speed range was 4.2 - 4.5 km/hr.

#### Weather forecast for next five days of Churachandpur (5<sup>th</sup> to 9<sup>th</sup> March, **2016**)

Likely to have light rain during the next five days. The Sky will remain mainly clear to partly cloudy, with maximum temp. of 29.0 -31.0 °C & minimum temp. 14.0 – 15.0 °C. Relative humidity may reach upto 82% (max RH) & 25 % (min RH). The average wind speed may be 4-6 km/hr. The Wind direction may be South Easterly to Southerly during the next five days.

Birds must be vaccinated as per recommended schedule mentioned below as the probability of occurrence of the disease is high during March- April months.

Weather Outlook for subsequent 2 days from 08th March to 10th March 2016

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops	•	1	
Rapeseed/ Mustard	Flowering		- If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
Field Pea/ Lentil	Vegetative	Powdery Mildew	- Spray Bayleton (Triademofon 25%WP) @ 7.5 g/ pump (15litre capacity) or Dinocap (Karathane 46% EC) @ 7.5ml/ pump.
		Aphid	<ul> <li>- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid.</li> <li>- For organic control against aphid, sprays that consist of Azadirachtin/ neem oil or pyrethrin may be used.</li> </ul>
Horticulture Crops			
Cucurbits (bottle gourd, sponge gourd, pumpkin, water melon, etc.)	Offseason		-Prepare field into fine tilt and exposed to the sun for 7-10 days to avoid multiplication of mycelium for powdery mildew.  - Spray Bayleton (Triademofon 25%WP) @ 7.5 g/pump (15litre capacity) or Ntivo (Tebuconazole 50% + Trifloxystrobin 25% W. G) at the same dose.  - Transplant seedlings of 4-stage leaves at warm temperature.
Onion	Vegetative		<ul> <li>- Sufficient water should be made available for proper vegetative growth as it will result in poor bulb formation.</li> <li>- If availability of water is a problem mulching material free from fungal diseases may also be used.</li> <li>- Neck portion in plant should not be covered with soil</li> </ul>
Potato	For seed		<ul> <li>Try to minimize aphid population, if it is more than 2/100 compound leaves.</li> <li>Spray Imidachlorpid (Confidor) @ 4gm/litre of water. 100gm/250 litre of water is sufficient for 1 sangam. Repeat the spray at 10-15 days.</li> <li>remove off type plants showing mottling, mosaic, wrinkle and leaf rolling symptom.</li> <li>Cut the haulm at ground level in Jan/Feb, in the valley. Ensure no regrowth of the stem.</li> <li>Harvest the crop when the skin of the tuber has become firm.</li> <li>Harvest should be done on sunny day only. Heap the produce in the shade for curing of skin and left undisturbed for 15-20 days.</li> </ul>
Tomato	Transplanting		-Transplant seedlings of 4 leaves after proper field preparation.
	Flowering		-Taking prophylactic measures against tomato fruit borer.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	- To protect birds of all age groups from inclement weather, there should be adequate arrangements for artificial lighting and heating Needed to increase energy giving ingredients of feed (i.e. Maize, Wheat, Bajra etc.) and can be added 5% more.



# ICAR Research Complex for N.E.H. Region Manipur Centre, Lamphelpat, Imphal - 795 004



## "Gramin Krishi Mausam Seva"

			<del>-</del>
			<ul> <li>1. 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>2. R<sub>2</sub>B vaccine of 8-9 weeks of age group birds (layers).</li> </ul>
			3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).
			After that at every two months interval.
Sheep/ Goat	All age groups	PPR (Peste Des Petits	- If the animals have not yet been vaccinated, give vaccine now for PPR (Peste
	excepts the	Ruminants) Enterotoxemia	Des Petits Ruminants).  - If the Lambs and Kids in particular should be gien the caccination to prevent
	young ones	Enterotoxenna	Enterotoxaemia.
		Ectoparasitism	- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ectoparasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used.
Pig	All age groups excepts the	Care & management for newly born one	-Artificial lighting and heating to the pigletsProvide adequate bedding materials.
	young ones	Deworming	-Give Morantel citrate tablet @ 15 mg/kg of body weight.
		Ectoparasitism	- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ectoparasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used.
		Hog Cholera	-Vaccination against swine fever must be carried out.
Cattle	All age groups excepts the	B.Q./ H.S/FMD	-If the animals have not yet been vaccinated, give vaccine, now for Black Quarter, Haemorrhagic septicaemia, Foot & mouth Disease.
	young ones	Ectoparasitism	- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ectoparasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used.
		Johnes disease & Sterility	Immediate proper treatment for the disease should be provided.
		Fodder crops	-Maize should be sown for use as green fodderNapier/Guinea grass may be transplantedSilage can be prepared.
		Puerperal Fever in Pregnant animals	-50-60 gram of mineral mixture every day.
		Decrease in milk production	-The milk & urine samples must be sent for testing.
Breedable age group Milch cow		Controlled breeding	-control breeding programme for animals should continue in the month of February so the all participating animals become pregnant during this month.
		Mastitis	-To prevent mastitis they should be milked completely.
Fishery:	<u>.</u>		
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Fries/ fingerlings/ brooders	Pond and water	-Maintain minimum depth of $1.5 - 2.0$ m by filling fresh and clean waterApply Agri-Lime in brooder pond at small quantity at an interval of 30 days regularly.
		Feed	Provide feed 1-2 times @ 2 % body weight per day.
		Fish	- Male and female brooders should be stock in separate ponds for early breeding programs for Common Carp.  Howevering of fish may be done in error where water availability is low.
<u> </u>			- Harvesting of fish may be done in area where water availability is low.