



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



**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN**

**2<sup>nd</sup> February, 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 3<sup>rd</sup> January to 7<sup>th</sup> February, 2016 as below:

**Significant past weather for the preceding bi-weekly of Thoubal (29<sup>th</sup> to 1<sup>st</sup> February, 2016)**

The sky was mainly clear to partly cloudy. Rainfall of 0.2 mm was observed during the last four days. Maximum temperature range observed was 19.1– 22.0°C, range of minimum temperature observed was 2.3 – 10.5 °C, mean relative humidity observed in morning and afternoon were 91.0 % and 44 % respectively. The average wind speed range was 1.9 – 3.5 km/hr.

**Weather forecast for next five days of Thoubal (3<sup>rd</sup> to 7<sup>th</sup> February, 2016)**

Likely to have light rain during the next five days. The Sky will remain mainly clear to partly cloudy, with maximum temp. of 23.0 – 24.0 °C & minimum temp 5.0 – 6.0 °C. Relative humidity may reach upto 95 % (max RH) & 27 % (min RH). The average wind speed may be 3-4 km/ hr. The Wind direction may be South south-Easterly to South-west Westerly during next five days.

**Weather Forecast for next 5 days \* upto 0830 hours IST of 07th February 2016**  
Shallow to moderate fog very likely at isolated places over Manipur during next 2 days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rabi Maize</b>	Early vegetative		- Light irrigation may be given to keep soil moist if the soil is dry. - Thinning may be done in vegetative stage for mustard or pea intercropped with maize.
<b>Rapeseed/ Mustard</b>	Vegetative to flowering		- Apply foliar application of urea {5 pumps/ sangam @ 10g/ pump} or top dress with ½ N (@ 66kg Urea/ ha) just after irrigation. - If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
		Aphid	- Spray Monocrotophos @ 1.5 ml/lit of water to the infected patches only or use yellow plates filled with water.
<b>Field Pea/ Lentil</b>	Vegetative	Powdery Mildew	- Spray Bayleton ( Triaclemofon 25% WP) @ 7.5 g/ pump or Dinocap (Karathane 46% EC) @ 7.5ml/ pump.
		Aphid	- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid. - For organic control against aphid, sprays that consist of Azadirachtin/ neem oil or pyrethrin may be used.
<b>Horticulture Crops</b>			
<b>Onion</b>	Bulb formation	White rot	-The initial symptom of these diseases are yellowing and wilting of leaves followed by total collapse of the top and gradually destroy the bulb and root. -The pathogen survives for many years in the soil and more common in cool weather with low temperature. -Crop rotation is the best.
		Bulb rot	-The soil born pathogen affects the onion bulb in the root area later covered with whitish mycelium. -symptom is yellowing and withering of the foliage. -Apply Benlate (0.025%) in the soil. -For powdery mildew Didomil MZ-72 w.p @ 2 ml/litre of water should be used for other soil borne diseases.
<b>Turmeric</b>	Harvesting		-Already mature plants whose leaves are more than 70 % dried may be harvested. -Harvested rhizome should be spread in the shed for at least 4- 5 days and screen for seed purposes. -Curing process should be started within one week of harvest.
<b>French bean</b>			-land preparation for sowing of French bean may be started.
<b>Potato</b>	Vegetative	Early blight	-Repeat spraying of Mancozeb @ 2 gm/litre of water if not sprayed.
<b>Cucurbits</b>	Nursery		- Nurseries of bitter gourd, cucumber, sponge gourd, bottle gourd, pumpkin, etc. may be done under polyhouse.



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<b>Tomato</b>	Transplanting		- Proper field preparation for transplanting of 4 leaf stage should be done. -Due consideration for removal of potentially infected material such as vines and stubbles for early blight should be done while ploughing.
	Flowering		- prophylactic measures against tomato fruit borer should be done.
<b>Animal Sciences</b>			
<b>Name of the animal</b>	<b>Growth stage</b>	<b>Disease/ infestation</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Care & management	- To protect birds of all age groups from inclement weather e.g. frost, snowfall etc., 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.
		Coccidiosis	- After routine preventive and prophylaxis medication for the said disease, if still there is any defaecation of reddish colour faeces, somnolence, drooping of wings, offed etc., Amprolium agent can be used in feed and water. Add vitamin k, vit. A and electrolytes etc. also add mineral mixture in the feeds and water.
<b>Sheep/ Goat</b>	All age groups excepts the young ones	PPR (Peste Des Petits Ruminants)	- If the animals have not yet been vaccinated, give vaccine now for PPR (Peste Des Petits Ruminants).
		Enterotoxemia	- If the Lambs and Kids in particular should be given the vaccination 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.
<b>Pig</b>	All age groups excepts the young ones	Care & management for newly born one	-Artificial lighting and heating to the piglets. -Provide adequate bedding materials.
		Deworming	-Give Morantel citrate tablet @ 15 mg/kg 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.
<b>Cattle</b>	All age groups excepts the young ones	B.Q./ H.S/FMD	-If the animals have not yet been vaccinated, give vaccine, now for Black Quarter, Haemorrhagic septicaemia, Foot & mouth Disease.
		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.
		Fodder cultivation	-Irrigate the crops like Berseem Clover every 20-30 days. -At every 20-22 days for Oat.
<b>Fishery:</b>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
<b>Carp culture</b>	Fries/ fingerlings/ brooders	Pond and water	Remove aquatic weeds. Maintain minimum depth of 1.5 – 2.0 m. Apply 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. - harvesting of fish may be done in area where water availability is low.

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



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**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN**

**2<sup>nd</sup> February, 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 3<sup>rd</sup> January to 7<sup>th</sup> February, 2016 as below:

**Significant past weather for the preceding bi-weekly of Ukhrul (29<sup>th</sup> to 1<sup>st</sup> February, 2016)**

The sky was mainly clear to partly cloudy. Rainfall of 0.2 mm was observed during the last four days. Maximum temperature range observed was 19.1– 22.0°C, range of minimum temperature observed was 2.3 – 10.5 °C, mean relative humidity observed in morning and afternoon were 91.0 % and 44 % respectively. The average wind speed range was 1.9 – 3.5 km/hr.

**Weather forecast for next five days of Ukhrul (3<sup>rd</sup> to 7<sup>th</sup> February, 2016)**

Likely to have light rain during the next five days. The Sky will remain mainly clear to partly cloudy, with maximum temp. of 22.0 – 24.0 °C & minimum temp 5.0 – 6.0 °C. Relative humidity may reach upto 95 % (max RH) & 29 % (min RH). The average wind speed may be 2-4 km/ hr. The Wind direction may be South Westerly to North-west Westerly during next five days.

**Weather Forecast for next 5 days \* upto 0830 hours IST of 07th February 2016**  
Shallow to moderate fog very likely at isolated places over Manipur during next 2 days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rabi Maize</b>	Early vegetative		- Light irrigation may be given to keep soil moist if the soil is dry. - Thinning may be done in vegetative stage for mustard or pea intercropped with maize.
<b>Rapeseed/ Mustard</b>	Vegetative to flowering		- Apply foliar application of urea {5 pumps/ sangam @ 10g/ pump} or top dress with ½ N (@ 66kg Urea/ ha) just after irrigation. - If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
		Aphid	- Spray Monocrotophos @ 1.5 ml/lit of water to the infected patches only or use yellow plates filled with water.
<b>Field Pea/ Lentil</b>	Vegetative	Powdery Mildew	- Spray Bayleton ( Triaclemofon 25% WP) @ 7.5 g/ pump or Dinocap (Karathane 46% EC) @ 7.5ml/ pump.
		Aphid	- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid. - For organic control against aphid, sprays that consist of Azadirachtin/ neem oil or pyrethrin may be used.
<b>Horticulture Crops</b>			
<b>Onion</b>	Bulb formation	White rot	-The initial symptom of these diseases are yellowing and wilting of leaves followed by total collapse of the top and gradually destroy the bulb and root. -The pathogen survives for many years in the soil and more common in cool weather with low temperature. -Crop rotation is the best.
		Bulb rot	-The soil born pathogen affects the onion bulb in the root area later covered with whitish mycelium. -symptom is yellowing and withering of the foliage. -Apply Benlate (0.025%) in the soil. -For powdery mildew Didomil MZ-72 w.p @ 2 ml/litre of water should be used for other soil borne diseases.
<b>Turmeric</b>	Harvesting		-Already mature plants whose leaves are more than 70 % dried may be harvested. -Harvested rhizome should be spread in the shed for at least 4- 5 days and screen for seed purposes. -Curing process should be started within one week of harvest.
<b>French bean</b>			-land preparation for sowing of French bean may be started.
<b>Potato</b>	Vegetative	Early blight	-Repeat spraying of Mancozeb @ 2 gm/litre of water if not sprayed.
<b>Cucurbits</b>	Nursery		- Nurseries of bitter gourd, cucumber, sponge gourd, bottle gourd, pumpkin, etc. may be done under polyhouse.



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<b>Tomato</b>	Transplanting		- Proper field preparation for transplanting of 4 leaf stage should be done. -Due consideration for removal of potentially infected material such as vines and stubbles for early blight should be done while ploughing.
	Flowering		- prophylactic measures against tomato fruit borer should be done.
<b>Animal Sciences</b>			
<b>Name of the animal</b>	<b>Growth stage</b>	<b>Disease/ infestation</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Care & management	- To protect birds of all age groups from inclement weather e.g. frost, snowfall etc., 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.
		Coccidiosis	- After routine preventive and prophylaxis medication for the said disease, if still there is any defaecation of reddish colour faeces, somnolence, drooping of wings, offed etc., Amprolium agent can be used in feed and water. Add vitamin k, vit. A and electrolytes etc. also add mineral mixture in the feeds and water.
<b>Sheep/ Goat</b>	All age groups excepts the young ones	PPR (Peste Des Petits Ruminants)	- If the animals have not yet been vaccinated, give vaccine now for PPR (Peste Des Petits Ruminants).
		Enterotoxemia	- If the Lambs and Kids in particular should be given the vaccination 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.
<b>Pig</b>	All age groups excepts the young ones	Care & management for newly born one	-Artificial lighting and heating to the piglets. -Provide adequate bedding materials.
		Deworming	-Give Morantel citrate tablet @ 15 mg/kg 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.
<b>Cattle</b>	All age groups excepts the young ones	B.Q./ H.S/FMD	-If the animals have not yet been vaccinated, give vaccine, now for Black Quarter, Haemorrhagic septicaemia, Foot & mouth Disease.
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		Fodder cultivation	-Irrigate the crops like Berseem Clover every 20-30 days. -At every 20-22 days for Oat.
<b>Fishery:</b>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
<b>Carp culture</b>	Fries/ fingerlings/ brooders	Pond and water	Remove aquatic weeds. Maintain minimum depth of 1.5 – 2.0 m. Apply 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. - harvesting of fish may be done in area where water availability is low.

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**MANIPUR BULLETIN**

**2<sup>nd</sup> February, 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 3<sup>rd</sup> January to 7<sup>th</sup> February, 2016 as below:

**Significant past weather for the preceding bi-weekly of Bishnupur (29<sup>th</sup> to 1<sup>st</sup> February, 2016)**

The sky was mainly clear to partly cloudy. Rainfall of 0.2 mm was observed during the last four days. Maximum temperature range observed was 19.1– 22.0°C, range of minimum temperature observed was 2.3 – 10.5 °C, mean relative humidity observed in morning and afternoon were 91.0 % and 44 % respectively. The average wind speed range was 1.9 – 3.5 km/hr.

**Weather forecast for next five days of Bishnupur (3<sup>rd</sup> to 7<sup>th</sup> February, 2016)**

Likely to have light rain during the next five days. The Sky will remain mainly clear to partly cloudy, with maximum temp. of 22.0 – 24.0 °C & minimum temp 6.0 – 7.0 °C. Relative humidity may reach upto 97 % (max RH) & 27 % (min RH). The average wind speed may be 2-4 km/ hr. The Wind direction may be South Easterly to South South- westerly during next five days.

**Weather Forecast for next 5 days \* upto 0830 hours IST of 07th February 2016**  
Shallow to moderate fog very likely at isolated places over Manipur during next 2 days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rabi Maize</b>	Early vegetative		- Light irrigation may be given to keep soil moist if the soil is dry. - Thinning may be done in vegetative stage for mustard or pea intercropped with maize.
<b>Rapeseed/ Mustard</b>	Vegetative to flowering		- Apply foliar application of urea {5 pumps/ sangam @ 10g/ pump} or top dress with ½ N (@ 66kg Urea/ ha) just after irrigation. - If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
		Aphid	- Spray Monocrotophos @ 1.5 ml/lit of water to the infected patches only or use yellow plates filled with water.
<b>Field Pea/ Lentil</b>	Vegetative	Powdery Mildew	- Spray Bayleton ( Triaclemofon 25% WP) @ 7.5 g/ pump or Dinocap (Karathane 46% EC) @ 7.5ml/ pump.
		Aphid	- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid. - For organic control against aphid, sprays that consist of Azadirachtin/ neem oil or pyrethrin may be used.
<b>Horticulture Crops</b>			
<b>Onion</b>	Bulb formation	White rot	-The initial symptom of these diseases are yellowing and wilting of leaves followed by total collapse of the top and gradually destroy the bulb and root. -The pathogen survives for many years in the soil and more common in cool weather with low temperature. -Crop rotation is the best.
		Bulb rot	-The soil born pathogen affects the onion bulb in the root area later covered with whitish mycelium. -symptom is yellowing and withering of the foliage. -Apply Benlate (0.025%) in the soil. -For powdery mildew Didomil MZ-72 w.p @ 2 ml/litre of water should be used for other soil borne diseases.
<b>Turmeric</b>	Harvesting		-Already mature plants whose leaves are more than 70 % dried may be harvested. -Harvested rhizome should be spread in the shed for at least 4- 5 days and screen for seed purposes. -Curing process should be started within one week of harvest.
<b>French bean</b>			-land preparation for sowing of French bean may be started.
<b>Potato</b>	Vegetative	Early blight	-Repeat spraying of Mancozeb @ 2 gm/litre of water if not sprayed.
<b>Cucurbits</b>	Nursery		- Nurseries of bitter gourd, cucumber, sponge gourd, bottle gourd, pumpkin, etc. may be done under polyhouse.



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	Flowering		- prophylactic measures against tomato fruit borer should be done.
<b>Animal Sciences</b>			
<b>Name of the animal</b>	<b>Growth stage</b>	<b>Disease/ infestation</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Care & management	- To protect birds of all age groups from inclement weather e.g. frost, snowfall etc., 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.
		Coccidiosis	- After routine preventive and prophylaxis medication for the said disease, if still there is any defaecation of reddish colour faeces, somnolence, drooping of wings, offed etc., Amprolium agent can be used in feed and water. Add vitamin k, vit. A and electrolytes etc. also add mineral mixture in the feeds and water.
<b>Sheep/ Goat</b>	All age groups excepts the young ones	PPR (Peste Des Petits Ruminants)	- If the animals have not yet been vaccinated, give vaccine now for PPR (Peste Des Petits Ruminants).
		Enterotoxemia	- If the Lambs and Kids in particular should be given the vaccination 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.
<b>Pig</b>	All age groups excepts the young ones	Care & management for newly born one	-Artificial lighting and heating to the piglets. -Provide adequate bedding materials.
		Deworming	-Give Morantel citrate tablet @ 15 mg/kg body weight.
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<b>Cattle</b>	All age groups excepts the young ones	B.Q./ H.S/FMD	-If the animals have not yet been vaccinated, give vaccine, now for Black Quarter, Haemorrhagic septicaemia, Foot & mouth Disease.
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		Fodder cultivation	-Irrigate the crops like Berseem Clover every 20-30 days. -At every 20-22 days for Oat.
<b>Fishery:</b>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
<b>Carp culture</b>	Fries/ fingerlings/ brooders	Pond and water	Remove aquatic weeds. Maintain minimum depth of 1.5 – 2.0 m. Apply 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. - harvesting of fish may be done in area where water availability is low.

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



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**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN**

**2<sup>nd</sup> February, 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 3<sup>rd</sup> January to 7<sup>th</sup> February, 2016 as below:

**Significant past weather for the preceding bi-weekly of Chandel (29<sup>th</sup> to 1<sup>st</sup> February, 2016)**

The sky was mainly clear to partly cloudy. Rainfall of 0.2 mm was observed during the last four days. Maximum temperature range observed was 19.1– 22.0°C, range of minimum temperature observed was 2.3 – 10.5 °C, mean relative humidity observed in morning and afternoon were 91.0 % and 44 % respectively. The average wind speed range was 1.9 – 3.5 km/hr.

**Weather forecast for next five days of Chandel (3<sup>rd</sup> to 7<sup>th</sup> February, 2016)**

Likely to have light rain during the next five days. The Sky will remain mainly clear to partly cloudy, with maximum temp. of 20.0 – 21.0 °C & minimum temp 6.0 – 7.0 °C. Relative humidity may reach upto 94 % (max RH) & 32 % (min RH). The average wind speed may be 2-4 km/ hr. The Wind direction may be South west-Westerly to North west-westerly during next five days.

**Weather Forecast for next 5 days \* upto 0830 hours IST of 07th February 2016**  
Shallow to moderate fog very likely at isolated places over Manipur during next 2 days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rabi Maize</b>	Early vegetative		- Light irrigation may be given to keep soil moist if the soil is dry. - Thinning may be done in vegetative stage for mustard or pea intercropped with maize.
<b>Rapeseed/ Mustard</b>	Vegetative to flowering		- Apply foliar application of urea {5 pumps/ sangam @ 10g/ pump} or top dress with ½ N (@ 66kg Urea/ ha) just after irrigation. - If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
		Aphid	- Spray Monocrotophos @ 1.5 ml/lit of water to the infected patches only or use yellow plates filled with water.
<b>Field Pea/ Lentil</b>	Vegetative	Powdery Mildew	- Spray Bayleton ( Triaclemofon 25% WP) @ 7.5 g/ pump or Dinocap (Karathane 46% EC) @ 7.5ml/ pump.
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<b>Horticulture Crops</b>			
<b>Onion</b>	Bulb formation	White rot	-The initial symptom of these diseases are yellowing and wilting of leaves followed by total collapse of the top and gradually destroy the bulb and root. -The pathogen survives for many years in the soil and more common in cool weather with low temperature. -Crop rotation is the best.
		Bulb rot	-The soil born pathogen affects the onion bulb in the root area later covered with whitish mycelium. -symptom is yellowing and withering of the foliage. -Apply Benlate (0.025%) in the soil. -For powdery mildew Didomil MZ-72 w.p @ 2 ml/litre of water should be used for other soil borne diseases.
<b>Turmeric</b>	Harvesting		-Already mature plants whose leaves are more than 70 % dried may be harvested. -Harvested rhizome should be spread in the shed for at least 4- 5 days and screen for seed purposes. -Curing process should be started within one week of harvest.
<b>French bean</b>			-land preparation for sowing of French bean may be started.
<b>Potato</b>	Vegetative	Early blight	-Repeat spraying of Mancozeb @ 2 gm/litre of water if not sprayed.
<b>Cucurbits</b>	Nursery		- Nurseries of bitter gourd, cucumber, sponge gourd, bottle gourd, pumpkin, etc. may be done under polyhouse.



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



**“Gramin Krishi Mausam Seva”**

<b>Tomato</b>	Transplanting		- Proper field preparation for transplanting of 4 leaf stage should be done. -Due consideration for removal of potentially infected material such as vines and stubbles for early blight should be done while ploughing.
	Flowering		- prophylactic measures against tomato fruit borer should be done.
<b>Animal Sciences</b>			
<b>Name of the animal</b>	<b>Growth stage</b>	<b>Disease/ infestation</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Care & management	- To protect birds of all age groups from inclement weather e.g. frost, snowfall etc., 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.
		Coccidiosis	- After routine preventive and prophylaxis medication for the said disease, if still there is any defaecation of reddish colour faeces, somnolence, drooping of wings, offed etc., Amprolium agent can be used in feed and water. Add vitamin k, vit. A and electrolytes etc. also add mineral mixture in the feeds and water.
<b>Sheep/ Goat</b>	All age groups excepts the young ones	PPR (Peste Des Petits Ruminants)	- If the animals have not yet been vaccinated, give vaccine now for PPR (Peste Des Petits Ruminants).
		Enterotoxemia	- If the Lambs and Kids in particular should be given the vaccination 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.
<b>Pig</b>	All age groups excepts the young ones	Care & management for newly born one	-Artificial lighting and heating to the piglets. -Provide adequate bedding materials.
		Deworming	-Give Morantel citrate tablet @ 15 mg/kg 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.
<b>Cattle</b>	All age groups excepts the young ones	B.Q./ H.S/FMD	-If the animals have not yet been vaccinated, give vaccine, now for Black Quarter, Haemorrhagic septicaemia, Foot & mouth Disease.
		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.
		Fodder cultivation	-Irrigate the crops like Berseem Clover every 20-30 days. -At every 20-22 days for Oat.
<b>Fishery:</b>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
<b>Carp culture</b>	Fries/ fingerlings/ brooders	Pond and water	Remove aquatic weeds. Maintain minimum depth of 1.5 – 2.0 m. Apply 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. - harvesting of fish may be done in area where water availability is low.

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



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



**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN**

**2<sup>nd</sup> February, 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 3<sup>rd</sup> January to 7<sup>th</sup> February, 2016 as below:

**Significant past weather for the preceding bi-weekly of Churachandpur (29<sup>th</sup> to 1<sup>st</sup> February, 2016)**

The sky was mainly clear to partly cloudy. Rainfall of 0.2 mm was observed during the last four days. Maximum temperature range observed was 19.1– 22.0°C, range of minimum temperature observed was 2.3 – 10.5 °C, mean relative humidity observed in morning and afternoon were 91.0 % and 44 % respectively. The average wind speed range was 1.9 – 3.5 km/hr.

**Weather forecast for next five days of Churachandpur (3<sup>rd</sup> to 7<sup>th</sup> February, 2016)**

Likely to have light rain during the next five days. The Sky will remain mainly clear to partly cloudy, with maximum temp. of 21.0 – 22.0 °C & minimum temp 6.0 – 8.0 °C. Relative humidity may reach upto 97 % (max RH) & 26 % (min RH). The average wind speed may be 3-4 km/ hr. The Wind direction may be South Easterly to South south-Easterly during next five days.

**Weather Forecast for next 5 days \* upto 0830 hours IST of 07th February 2016**  
Shallow to moderate fog very likely at isolated places over Manipur during next 2 days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rabi Maize</b>	Early vegetative		- Light irrigation may be given to keep soil moist if the soil is dry. - Thinning may be done in vegetative stage for mustard or pea intercropped with maize.
<b>Rapeseed/ Mustard</b>	Vegetative to flowering		- Apply foliar application of urea {5 pumps/ sangam @ 10g/ pump} or top dress with ½ N (@ 66kg Urea/ ha) just after irrigation. - If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
		Aphid	- Spray Monocrotophos @ 1.5 ml/lit of water to the infected patches only or use yellow plates filled with water.
<b>Field Pea/ Lentil</b>	Vegetative	Powdery Mildew	- Spray Bayleton ( Triaclemofon 25% WP) @ 7.5 g/ pump or Dinocap (Karathane 46% EC) @ 7.5ml/ pump.
		Aphid	- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid. - For organic control against aphid, sprays that consist of Azadirachtin/ neem oil or pyrethrin may be used.
<b>Horticulture Crops</b>			
<b>Onion</b>	Bulb formation	White rot	-The initial symptom of these diseases are yellowing and wilting of leaves followed by total collapse of the top and gradually destroy the bulb and root. -The pathogen survives for many years in the soil and more common in cool weather with low temperature. -Crop rotation is the best.
		Bulb rot	-The soil born pathogen affects the onion bulb in the root area later covered with whitish mycelium. -symptom is yellowing and withering of the foliage. -Apply Benlate (0.025%) in the soil. -For powdery mildew Didomil MZ-72 w.p @ 2 ml/litre of water should be used for other soil borne diseases.
<b>Turmeric</b>	Harvesting		-Already mature plants whose leaves are more than 70 % dried may be harvested. -Harvested rhizome should be spread in the shed for at least 4- 5 days and screen for seed purposes. -Curing process should be started within one week of harvest.
<b>French bean</b>			-land preparation for sowing of French bean may be started.
<b>Potato</b>	Vegetative	Early blight	-Repeat spraying of Mancozeb @ 2 gm/litre of water if not sprayed.
<b>Cucurbits</b>	Nursery		- Nurseries of bitter gourd, cucumber, sponge gourd, bottle gourd, pumpkin, etc. may be done under polyhouse.



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



**“Gramin Krishi Mausam Seva”**

<b>Tomato</b>	Transplanting		- Proper field preparation for transplanting of 4 leaf stage should be done. -Due consideration for removal of potentially infected material such as vines and stubbles for early blight should be done while ploughing.
	Flowering		- prophylactic measures against tomato fruit borer should be done.
<b>Animal Sciences</b>			
<b>Name of the animal</b>	<b>Growth stage</b>	<b>Disease/ infestation</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Care & management	- To protect birds of all age groups from inclement weather e.g. frost, snowfall etc., 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.
		Coccidiosis	- After routine preventive and prophylaxis medication for the said disease, if still there is any defaecation of reddish colour faeces, somnolence, drooping of wings, offed etc., Amprolium agent can be used in feed and water. Add vitamin k, vit. A and electrolytes etc. also add mineral mixture in the feeds and water.
<b>Sheep/ Goat</b>	All age groups excepts the young ones	PPR (Peste Des Petits Ruminants)	- If the animals have not yet been vaccinated, give vaccine now for PPR (Peste Des Petits Ruminants).
		Enterotoxemia	- If the Lambs and Kids in particular should be given the vaccination 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.
<b>Pig</b>	All age groups excepts the young ones	Care & management for newly born one	-Artificial lighting and heating to the piglets. -Provide adequate bedding materials.
		Deworming	-Give Morantel citrate tablet @ 15 mg/kg 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.
<b>Cattle</b>	All age groups excepts the young ones	B.Q./ H.S/FMD	-If the animals have not yet been vaccinated, give vaccine, now for Black Quarter, Haemorrhagic septicaemia, Foot & mouth Disease.
		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.
		Fodder cultivation	-Irrigate the crops like Berseem Clover every 20-30 days. -At every 20-22 days for Oat.
<b>Fishery:</b>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
<b>Carp culture</b>	Fries/ fingerlings/ brooders	Pond and water	Remove aquatic weeds. Maintain minimum depth of 1.5 – 2.0 m. Apply 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. - harvesting of fish may be done in area where water availability is low.

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



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



**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN**

**2<sup>nd</sup> February, 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 3<sup>rd</sup> January to 7<sup>th</sup> February, 2016 as below:

**Significant past weather for the preceding bi-weekly of Imphal - East (29<sup>th</sup> to 1<sup>st</sup> February, 2016)**

The sky was mainly clear to partly cloudy. Rainfall of 0.2 mm was observed during the last four days. Maximum temperature range observed was 19.1– 22.0°C, range of minimum temperature observed was 2.3 – 10.5 °C, mean relative humidity observed in morning and afternoon were 91.0 % and 44 % respectively. The average wind speed range was 1.9 – 3.5 km/hr.

**Weather forecast for next five days of Imphal-East (3<sup>rd</sup> to 7<sup>th</sup> February, 2016)**

Likely to have light rain during the next five days. The Sky will remain mainly clear to partly cloudy, with maximum temp. of 22.0 – 24.0 °C & minimum temp 9.0 – 10.0 °C. Relative humidity may reach upto 99 % (max RH) & 21 % (min RH). The average wind speed may be 2-4 km/ hr. The Wind direction may be South East Easterly to South westerly during next five days.

**Weather Forecast for next 5 days \* upto 0830 hours IST of 07th February 2016**  
Shallow to moderate fog very likely at isolated places over Manipur during next 2 days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rabi Maize</b>	Early vegetative		- Light irrigation may be given to keep soil moist if the soil is dry. - Thinning may be done in vegetative stage for mustard or pea intercropped with maize.
<b>Rapeseed/ Mustard</b>	Vegetative to flowering		- Apply foliar application of urea {5 pumps/ sangam @ 10g/ pump} or top dress with ½ N (@ 66kg Urea/ ha) just after irrigation. - If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
		Aphid	- Spray Monocrotophos @ 1.5 ml/lit of water to the infected patches only or use yellow plates filled with water.
<b>Field Pea/ Lentil</b>	Vegetative	Powdery Mildew	- Spray Bayleton ( Triaclemofon 25% WP) @ 7.5 g/ pump or Dinocap (Karathane 46% EC) @ 7.5ml/ pump.
		Aphid	- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid. - For organic control against aphid, sprays that consist of Azadirachtin/ neem oil or pyrethrin may be used.
<b>Horticulture Crops</b>			
<b>Onion</b>	Bulb formation	White rot	-The initial symptom of these diseases are yellowing and wilting of leaves followed by total collapse of the top and gradually destroy the bulb and root. -The pathogen survives for many years in the soil and more common in cool weather with low temperature. -Crop rotation is the best.
		Bulb rot	-The soil born pathogen affects the onion bulb in the root area later covered with whitish mycelium. -symptom is yellowing and withering of the foliage. -Apply Benlate (0.025%) in the soil. -For powdery mildew Didomil MZ-72 w.p @ 2 ml/litre of water should be used for other soil borne diseases.
<b>Turmeric</b>	Harvesting		-Already mature plants whose leaves are more than 70 % dried may be harvested. -Harvested rhizome should be spread in the shed for at least 4- 5 days and screen for seed purposes. -Curing process should be started within one week of harvest.
<b>French bean</b>			-land preparation for sowing of French bean may be started.
<b>Potato</b>	Vegetative	Early blight	-Repeat spraying of Mancozeb @ 2 gm/litre of water if not sprayed.
<b>Cucurbits</b>	Nursery		- Nurseries of bitter gourd, cucumber, sponge gourd, bottle gourd, pumpkin, etc. may be done under polyhouse.



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



**“Gramin Krishi Mausam Seva”**

<b>Tomato</b>	Transplanting		- Proper field preparation for transplanting of 4 leaf stage should be done. -Due consideration for removal of potentially infected material such as vines and stubbles for early blight should be done while ploughing.
	Flowering		- prophylactic measures against tomato fruit borer should be done.
<b>Animal Sciences</b>			
<b>Name of the animal</b>	<b>Growth stage</b>	<b>Disease/ infestation</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Care & management	- To protect birds of all age groups from inclement weather e.g. frost, snowfall etc., 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.
		Coccidiosis	- After routine preventive and prophylaxis medication for the said disease, if still there is any defaecation of reddish colour faeces, somnolence, drooping of wings, offed etc., Amprolium agent can be used in feed and water. Add vitamin k, vit. A and electrolytes etc. also add mineral mixture in the feeds and water.
<b>Sheep/ Goat</b>	All age groups excepts the young ones	PPR (Peste Des Petits Ruminants)	- If the animals have not yet been vaccinated, give vaccine now for PPR (Peste Des Petits Ruminants).
		Enterotoxemia	- If the Lambs and Kids in particular should be given the vaccination 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.
<b>Pig</b>	All age groups excepts the young ones	Care & management for newly born one	-Artificial lighting and heating to the piglets. -Provide adequate bedding materials.
		Deworming	-Give Morantel citrate tablet @ 15 mg/kg 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.
<b>Cattle</b>	All age groups excepts the young ones	B.Q./ H.S/FMD	-If the animals have not yet been vaccinated, give vaccine, now for Black Quarter, Haemorrhagic septicaemia, Foot & mouth Disease.
		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.
		Fodder cultivation	-Irrigate the crops like Berseem Clover every 20-30 days. -At every 20-22 days for Oat.
<b>Fishery:</b>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
<b>Carp culture</b>	Fries/ fingerlings/ brooders	Pond and water	Remove aquatic weeds. Maintain minimum depth of 1.5 – 2.0 m. Apply 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. - harvesting of fish may be done in area where water availability is low.

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



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



**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN**

**2<sup>nd</sup> February, 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 3<sup>rd</sup> January to 7<sup>th</sup> February, 2016 as below:

<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (29<sup>th</sup> to 1<sup>st</sup> February, 2016)</b></p> <p>The sky was mainly clear to partly cloudy. Rainfall of 0.2 mm was observed during the last four days. Maximum temperature range observed was 19.1– 22.0°C, range of minimum temperature observed was 2.3 – 10.5 °C, mean relative humidity observed in morning and afternoon were 91.0 % and 44 % respectively. The average wind speed range was 1.9 – 3.5 km/hr.</p>	<p><b>Weather forecast for next five days of Imphal-West (3<sup>rd</sup> to 7<sup>th</sup> February, 2016)</b></p> <p>Likely to have light rain during the next five days. The Sky will remain mainly clear to partly cloudy, with maximum temp. of 22.0 – 24.0 °C &amp; minimum temp.7.0 – 9.0 °C. Relative humidity may reach upto 99 % (max RH) &amp; 24 % (min RH). The average wind speed may be 2-4 km/ hr. The Wind direction may be North east Easterly to South westerly during next five days.</p>
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**Weather Forecast for next 5 days \* upto 0830 hours IST of 07th February 2016**  
Shallow to moderate fog very likely at isolated places over Manipur during next 2 days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rabi Maize</b>	Early vegetative		- Light irrigation may be given to keep soil moist if the soil is dry. - Thinning may be done in vegetative stage for mustard or pea intercropped with maize.
<b>Rapeseed/ Mustard</b>	Vegetative to flowering		- Apply foliar application of urea {5 pumps/ sangam @ 10g/ pump} or top dress with ½ N (@ 66kg Urea/ ha) just after irrigation. - If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
		Aphid	- Spray Monocrotophos @ 1.5 ml/lit of water to the infected patches only or use yellow plates filled with water.
<b>Field Pea/ Lentil</b>	Vegetative	Powdery Mildew	- Spray Bayleton ( Triaclemofon 25% WP) @ 7.5 g/ pump or Dinocap (Karathane 46% EC) @ 7.5ml/ pump.
		Aphid	- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid. - For organic control against aphid, sprays that consist of Azadirachtin/ neem oil or pyrethrin may be used.
<b>Horticulture Crops</b>			
<b>Onion</b>	Bulb formation	White rot	-The initial symptom of these diseases are yellowing and wilting of leaves followed by total collapse of the top and gradually destroy the bulb and root. -The pathogen survives for many years in the soil and more common in cool weather with low temperature. -Crop rotation is the best.
		Bulb rot	-The soil born pathogen affects the onion bulb in the root area later covered with whitish mycelium. -symptom is yellowing and withering of the foliage. -Apply Benlate (0.025%) in the soil. -For powdery mildew Didomil MZ-72 w.p @ 2 ml/litre of water should be used for other soil borne diseases.
<b>Turmeric</b>	Harvesting		-Already mature plants whose leaves are more than 70 % dried may be harvested. -Harvested rhizome should be spread in the shed for at least 4- 5 days and screen for seed purposes. -Curing process should be started within one week of harvest.
<b>French bean</b>			-land preparation for sowing of French bean may be started.
<b>Potato</b>	Vegetative	Early blight	-Repeat spraying of Mancozeb @ 2 gm/litre of water if not sprayed.
<b>Cucurbits</b>	Nursery		- Nurseries of bitter gourd, cucumber, sponge gourd, bottle gourd, pumpkin, etc. may be done under polyhouse.



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



**“Gramin Krishi Mausam Seva”**

<b>Tomato</b>	Transplanting		- Proper field preparation for transplanting of 4 leaf stage should be done. -Due consideration for removal of potentially infected material such as vines and stubbles for early blight should be done while ploughing.
	Flowering		- prophylactic measures against tomato fruit borer should be done.
<b>Animal Sciences</b>			
<b>Name of the animal</b>	<b>Growth stage</b>	<b>Disease/ infestation</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Care & management	- To protect birds of all age groups from inclement weather e.g. frost, snowfall etc., 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.
		Coccidiosis	- After routine preventive and prophylaxis medication for the said disease, if still there is any defaecation of reddish colour faeces, somnolence, drooping of wings, offed etc., Amprolium agent can be used in feed and water. Add vitamin k, vit. A and electrolytes etc. also add mineral mixture in the feeds and water.
<b>Sheep/ Goat</b>	All age groups excepts the young ones	PPR (Peste Des Petits Ruminants)	- If the animals have not yet been vaccinated, give vaccine now for PPR (Peste Des Petits Ruminants).
		Enterotoxemia	- If the Lambs and Kids in particular should be given the vaccination 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.
<b>Pig</b>	All age groups excepts the young ones	Care & management for newly born one	-Artificial lighting and heating to the piglets. -Provide adequate bedding materials.
		Deworming	-Give Morantel citrate tablet @ 15 mg/kg 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.
<b>Cattle</b>	All age groups excepts the young ones	B.Q./ H.S/FMD	-If the animals have not yet been vaccinated, give vaccine, now for Black Quarter, Haemorrhagic septicaemia, Foot & mouth Disease.
		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.
		Fodder cultivation	-Irrigate the crops like Berseem Clover every 20-30 days. -At every 20-22 days for Oat.
<b>Fishery:</b>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
<b>Carp culture</b>	Fries/ fingerlings/ brooders	Pond and water	Remove aquatic weeds. Maintain minimum depth of 1.5 – 2.0 m. Apply 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. - harvesting of fish may be done in area where water availability is low.

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



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



**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN**

**2<sup>nd</sup> February, 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 3<sup>rd</sup> January to 7<sup>th</sup> February, 2016 as below:

**Significant past weather for the preceding bi-weekly of Senapati (29<sup>th</sup> to 1<sup>st</sup> February, 2016)**

The sky was mainly clear to partly cloudy. Rainfall of 0.2 mm was observed during the last four days. Maximum temperature range observed was 19.1– 22.0°C, range of minimum temperature observed was 2.3 – 10.5 °C, mean relative humidity observed in morning and afternoon were 91.0 % and 44 % respectively. The average wind speed range was 1.9 – 3.5 km/hr.

**Weather forecast for next five days of Senapati (3<sup>rd</sup> to 7<sup>th</sup> February, 2016)**

Likely to have light rain during the next five days. The Sky will remain mainly clear to partly cloudy, with maximum temp. of 21.0 – 24.0 °C & minimum temp 4.0 – 5.0 °C. Relative humidity may reach upto 97 % (max RH) & 25 % (min RH). The average wind speed may be 2-4 km/ hr. The Wind direction may be Easterly to South Westerly during next five days.

**Weather Forecast for next 5 days \* upto 0830 hours IST of 07th February 2016**  
Shallow to moderate fog very likely at isolated places over Manipur during next 2 days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rabi Maize</b>	Early vegetative		- Light irrigation may be given to keep soil moist if the soil is dry. - Thinning may be done in vegetative stage for mustard or pea intercropped with maize.
<b>Rapeseed/ Mustard</b>	Vegetative to flowering		- Apply foliar application of urea {5 pumps/ sangam @ 10g/ pump} or top dress with ½ N (@ 66kg Urea/ ha) just after irrigation. - If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
		Aphid	- Spray Monocrotophos @ 1.5 ml/lit of water to the infected patches only or use yellow plates filled with water.
<b>Field Pea/ Lentil</b>	Vegetative	Powdery Mildew	- Spray Bayleton ( Triaclemofon 25% WP) @ 7.5 g/ pump or Dinocap (Karathane 46% EC) @ 7.5ml/ pump.
		Aphid	- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid. - For organic control against aphid, sprays that consist of Azadirachtin/ neem oil or pyrethrin may be used.
<b>Horticulture Crops</b>			
<b>Onion</b>	Bulb formation	White rot	-The initial symptom of these diseases are yellowing and wilting of leaves followed by total collapse of the top and gradually destroy the bulb and root. -The pathogen survives for many years in the soil and more common in cool weather with low temperature. -Crop rotation is the best.
		Bulb rot	-The soil born pathogen affects the onion bulb in the root area later covered with whitish mycelium. -symptom is yellowing and withering of the foliage. -Apply Benlate (0.025%) in the soil. -For powdery mildew Didomil MZ-72 w.p @ 2 ml/litre of water should be used for other soil borne diseases.
<b>Turmeric</b>	Harvesting		-Already mature plants whose leaves are more than 70 % dried may be harvested. -Harvested rhizome should be spread in the shed for at least 4- 5 days and screen for seed purposes. -Curing process should be started within one week of harvest.
<b>French bean</b>			-land preparation for sowing of French bean may be started.
<b>Potato</b>	Vegetative	Early blight	-Repeat spraying of Mancozeb @ 2 gm/litre of water if not sprayed.
<b>Cucurbits</b>	Nursery		- Nurseries of bitter gourd, cucumber, sponge gourd, bottle gourd, pumpkin, etc. may be done under polyhouse.



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**“Gramin Krishi Mausam Seva”**

<b>Tomato</b>	Transplanting		- Proper field preparation for transplanting of 4 leaf stage should be done. -Due consideration for removal of potentially infected material such as vines and stubbles for early blight should be done while ploughing.
	Flowering		- prophylactic measures against tomato fruit borer should be done.
<b>Animal Sciences</b>			
<b>Name of the animal</b>	<b>Growth stage</b>	<b>Disease/ infestation</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Care & management	- To protect birds of all age groups from inclement weather e.g. frost, snowfall etc., 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.
		Coccidiosis	- After routine preventive and prophylaxis medication for the said disease, if still there is any defaecation of reddish colour faeces, somnolence, drooping of wings, offed etc., Amprolium agent can be used in feed and water. Add vitamin k, vit. A and electrolytes etc. also add mineral mixture in the feeds and water.
<b>Sheep/ Goat</b>	All age groups excepts the young ones	PPR (Peste Des Petits Ruminants)	- If the animals have not yet been vaccinated, give vaccine now for PPR (Peste Des Petits Ruminants).
		Enterotoxemia	- If the Lambs and Kids in particular should be given the vaccination 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.
<b>Pig</b>	All age groups excepts the young ones	Care & management for newly born one	-Artificial lighting and heating to the piglets. -Provide adequate bedding materials.
		Deworming	-Give Morantel citrate tablet @ 15 mg/kg 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.
<b>Cattle</b>	All age groups excepts the young ones	B.Q./ H.S/FMD	-If the animals have not yet been vaccinated, give vaccine, now for Black Quarter, Haemorrhagic septicaemia, Foot & mouth Disease.
		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.
		Fodder cultivation	-Irrigate the crops like Berseem Clover every 20-30 days. -At every 20-22 days for Oat.
<b>Fishery:</b>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
<b>Carp culture</b>	Fries/ fingerlings/ brooders	Pond and water	Remove aquatic weeds. Maintain minimum depth of 1.5 – 2.0 m. Apply 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. - harvesting of fish may be done in area where water availability is low.

(I. Meghachandra Singh)  
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**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN**

**2<sup>nd</sup> February, 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 3<sup>rd</sup> January to 7<sup>th</sup> February, 2016 as below:

**Significant past weather for the preceding bi-weekly of Tamenglong (29<sup>th</sup> to 1<sup>st</sup> February, 2016)**

The sky was mainly clear to partly cloudy. Rainfall of 0.2 mm was observed during the last four days. Maximum temperature range observed was 19.1– 22.0°C, range of minimum temperature observed was 2.3 – 10.5 °C, mean relative humidity observed in morning and afternoon were 91.0 % and 44 % respectively. The average wind speed range was 1.9 – 3.5 km/hr.

**Weather forecast for next five days of Tamenglong (3<sup>rd</sup> to 7<sup>th</sup> February, 2016)**

Likely to have light rain during the next five days. The Sky will remain mainly clear to partly cloudy, with maximum temp. of 22.0 – 23.0 °C & minimum temp 4.0 – 5.0 °C. Relative humidity may reach upto 95 % (max RH) & 25 % (min RH). The average wind speed may be 3-4 km/ hr. The Wind direction may be North east-Easterly to South Easterly during next five days.

**Weather Forecast for next 5 days \* upto 0830 hours IST of 07th February 2016**  
Shallow to moderate fog very likely at isolated places over Manipur during next 2 days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rabi Maize</b>	Early vegetative		- Light irrigation may be given to keep soil moist if the soil is dry. - Thinning may be done in vegetative stage for mustard or pea intercropped with maize.
<b>Rapeseed/ Mustard</b>	Vegetative to flowering		- Apply foliar application of urea {5 pumps/ sangam @ 10g/ pump} or top dress with ½ N (@ 66kg Urea/ ha) just after irrigation. - If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
		Aphid	- Spray Monocrotophos @ 1.5 ml/lit of water to the infected patches only or use yellow plates filled with water.
<b>Field Pea/ Lentil</b>	Vegetative	Powdery Mildew	- Spray Bayleton ( Triaclemofon 25% WP) @ 7.5 g/ pump or Dinocap (Karathane 46% EC) @ 7.5ml/ pump.
		Aphid	- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid. - For organic control against aphid, sprays that consist of Azadirachtin/ neem oil or pyrethrin may be used.
<b>Horticulture Crops</b>			
<b>Onion</b>	Bulb formation	White rot	-The initial symptom of these diseases are yellowing and wilting of leaves followed by total collapse of the top and gradually destroy the bulb and root. -The pathogen survives for many years in the soil and more common in cool weather with low temperature. -Crop rotation is the best.
		Bulb rot	-The soil born pathogen affects the onion bulb in the root area later covered with whitish mycelium. -symptom is yellowing and withering of the foliage. -Apply Benlate (0.025%) in the soil. -For powdery mildew Didomil MZ-72 w.p @ 2 ml/litre of water should be used for other soil borne diseases.
<b>Turmeric</b>	Harvesting		-Already mature plants whose leaves are more than 70 % dried may be harvested. -Harvested rhizome should be spread in the shed for at least 4- 5 days and screen for seed purposes. -Curing process should be started within one week of harvest.
<b>French bean</b>			-land preparation for sowing of French bean may be started.
<b>Potato</b>	Vegetative	Early blight	-Repeat spraying of Mancozeb @ 2 gm/litre of water if not sprayed.
<b>Cucurbits</b>	Nursery		- Nurseries of bitter gourd, cucumber, sponge gourd, bottle gourd, pumpkin, etc. may be done under polyhouse.



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<b>Tomato</b>	Transplanting		- Proper field preparation for transplanting of 4 leaf stage should be done. -Due consideration for removal of potentially infected material such as vines and stubbles for early blight should be done while ploughing.
	Flowering		- prophylactic measures against tomato fruit borer should be done.
<b>Animal Sciences</b>			
<b>Name of the animal</b>	<b>Growth stage</b>	<b>Disease/ infestation</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Care & management	- To protect birds of all age groups from inclement weather e.g. frost, snowfall etc., 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.
		Coccidiosis	- After routine preventive and prophylaxis medication for the said disease, if still there is any defaecation of reddish colour faeces, somnolence, drooping of wings, offed etc., Amprolium agent can be used in feed and water. Add vitamin k, vit. A and electrolytes etc. also add mineral mixture in the feeds and water.
<b>Sheep/ Goat</b>	All age groups excepts the young ones	PPR (Peste Des Petits Ruminants)	- If the animals have not yet been vaccinated, give vaccine now for PPR (Peste Des Petits Ruminants).
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		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.
<b>Pig</b>	All age groups excepts the young ones	Care & management for newly born one	-Artificial lighting and heating to the piglets. -Provide adequate bedding materials.
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<b>Fishery:</b>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
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