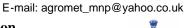
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ICAR Research Complex for N.E.H. Region Manipur Centre, Lamphelpat, Imphal - 795 004





# "Gramin Krishi Mausam Seva"

## MANIPUR BULLETIN 11<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 12<sup>th</sup> to 16<sup>th</sup> March, 2016 as below:

Significant past weather for the preceding bi-weekly of	Weather forecast for next five days of Tamenglong
Significant past weather for the preceding bi-weekly of	
Imphal - West (8 <sup>th</sup> to 10 <sup>th</sup> March, 2016)	(12 <sup>th</sup> to 16 <sup>th</sup> March, <b>2016</b> )
The sky was mainly cloudy to partly clear. The Rainfall 17.3 mm was	There may be light rain during the next five days. The Sky will remain
recorded during past three days. Maximum temperature range observed	mainly cloudy to partly clear, with maximum temp. of $27.0 - 31.0$ °C &
was 26.9 – 27.9 °C, range of minimum temperature observed was 11.6 –	minimum temp. 10.0 - 12.0 °C. Relative humidity may reach upto 95%
15.1 °C, mean relative humidity observed in morning and afternoon were	(max RH) & 24 % (min RH). The average wind speed may be 2-4 km/hr.
93.00 % and 48.67 % respectively. The average wind speed range was 6.4	Wind direction may be South south Easterly to South south Westerly
– 8.9 km/hr.	during the next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops		•	
Pre-kharif Rice	Nursery to transplanting		<ul> <li>Prepare nursery bed of 700 m<sup>2</sup> area, apply well decomposed FYM/ compost @ 1 t/ 700 m<sup>2</sup> at final leveling. Seed rate is 40-60 kg for a hectare. Recommended varieties are RC Maniphou 4, 5 and 12.</li> <li>Apply 65 kg Urea, 250 kg SSP and 45kg MOP per ha as basal dose at the time of final leveling before transplanting. Row planting of 35-40 days old seedlings may be done at a spacing of 25x10cm using beaded rope.</li> </ul>
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	•		
French bean	Land preparation		<ul> <li>-Land preparation for sowing of French bean should be started.</li> <li>-Quality seed should be collected.</li> <li>-Seed treatment against soil born diseases is advised preferably Trichoderma harzianum @ 10gm/kg seed is recommended.</li> <li>-Seed rate for dwarf variety are 50-60 kg/ha at 10X30 cm spacing and 30-40 kg at 30X45 cm spacing for pole type.</li> </ul>
Okra/bhindi	Land preparation		-land preparation for sowing of Bhindi should be started.
Tomato	Top dressing and earthing up		-40-45 days old tomato should be top dressed with 25 kg urea followed by earthing up.
Cucurbits (bottle gourd, sponge gourd, pumpkin, water melon, etc.)	Offseason		<ul> <li>-Prepare field into fine tilt and exposed to the sun for 7-10 days to avoid multiplication of mycelium for powdery mildew.</li> <li>- Spray Bayleton (Triademofon 25% WP) @ 7.5 g/ pump (15litre capacity) or Ntivo (Tebuconazole 50% + Trifloxystrobin 25% W. G) at the same dose.</li> <li>- Transplant seedlings of 4-stage leaves at warm temperature.</li> </ul>
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. 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> </ul>



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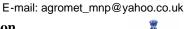


# "Gramin Krishi Mausam Seva"

			- 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.
Animal Sciences	I		
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>
		Ranikhet Diseases	<ul> <li>Birds must be vaccinated as per recommended schedule mentioned below as the probability of occurrence of the disease is high during March- April months.</li> <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> <li>3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).</li> <li>After that at every two months interval.</li> </ul>
Sheep/ Goat	All age groups excepts the	PPR (Peste Des Petits Ruminants)	- If the animals have not yet been vaccinated, give vaccine now for PPR (Peste Des Petits Ruminants).
	young ones	Enterotoxemia	- If the Lambs and Kids in particular should be given 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 excepts the young ones	Care & management for newly born one	-Artificial lighting and heating to the piglets. -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 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 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	<ul><li>-Maize should be sown for use as green fodder.</li><li>-Napier/Guinea grass may be transplanted.</li><li>-Silage can be prepared.</li></ul>
		Puerperal Fever in Pregnant animals	
		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/ brooders	Pond and water	-Maintain minimum depth of 1.5 – 2.0 m by filling fresh and clean water. -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	<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>

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# "Gramin Krishi Mausam Seva"

## MANIPUR BULLETIN 11<sup>th</sup> March, 2016

#### Thoubal

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Significant past weather for the preceding bi-weekly of	Weather forecast for next five days of Thoubal
Imphal - West (8 <sup>th</sup> to 10 <sup>th</sup> March, 2016)	$(12^{\text{th}} \text{ to } 16^{\text{th}} \text{ March, 2016})$
The sky was mainly cloudy to partly clear. The Rainfall 17.3 mm was	There may be light rain during the next five days. The Sky will remain
recorded during past three days. Maximum temperature range observed	mainly cloudy to partly clear, with maximum temp. of $27.0 - 31.0$ °C &
was 26.9 – 27.9 °C, range of minimum temperature observed was 11.6 –	minimum temp. 13.0 - 14.0 °C. Relative humidity may reach upto 85%
15.1 °C, mean relative humidity observed in morning and afternoon were	(max RH) & 21% (min RH). The average wind speed may be 4-6 km/hr.
93.00 % and 48.67 % respectively. The average wind speed range was 6.4	Wind direction may be South west Westerly to North Westerly during the
– 8.9 km/hr.	next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops	•	•	
Pre-kharif Rice	Nursery to transplanting		<ul> <li>Prepare nursery bed of 700 m<sup>2</sup> area, apply well decomposed FYM/ compost @ 1 t/ 700 m<sup>2</sup> at final leveling. Seed rate is 40-60 kg for a hectare. Recommended varieties are RC Maniphou 4, 5 and 12.</li> <li>Apply 65 kg Urea, 250 kg SSP and 45kg MOP per ha as basal dose at the time of final leveling before transplanting. Row planting of 35-40 days old seedlings may be done at a spacing of 25x10cm using beaded rope.</li> </ul>
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			
French bean	Land preparation		<ul> <li>-Land preparation for sowing of French bean should be started.</li> <li>-Quality seed should be collected.</li> <li>-Seed treatment against soil born diseases is advised preferably Trichoderma harzianum @ 10gm/kg seed is recommended.</li> <li>-Seed rate for dwarf variety are 50-60 kg/ha at 10X30 cm spacing and 30-40 kg at 30X45 cm spacing for pole type.</li> </ul>
Okra/bhindi	Land preparation		-land preparation for sowing of Bhindi should be started.
Tomato	Top dressing and earthing up		-40-45 days old tomato should be top dressed with 25 kg urea followed by earthing up.
Cucurbits (bottle gourd, sponge gourd, pumpkin, water melon, etc.)	Offseason		<ul> <li>-Prepare field into fine tilt and exposed to the sun for 7-10 days to avoid multiplication of mycelium for powdery mildew.</li> <li>- Spray Bayleton (Triademofon 25% WP) @ 7.5 g/ pump (15litre capacity) or Ntivo (Tebuconazole 50% + Trifloxystrobin 25% W. G) at the same dose.</li> <li>- Transplant seedlings of 4-stage leaves at warm temperature.</li> </ul>
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. 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> </ul>



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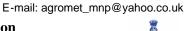


# "Gramin Krishi Mausam Seva"

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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>
		Ranikhet Diseases	<ul> <li>Birds must be vaccinated as per recommended schedule mentioned below as the probability of occurrence of the disease is high during March- April months.</li> <li>I. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds.</li> <li>R<sub>2</sub>B vaccine of 8-9 weeks of age group birds (layers).</li> <li>Killed ND virus vaccine of 16-18 weeks of age group birds (layers).</li> <li>After that at every two months interval.</li> </ul>
Sheep/ Goat	All age groups excepts the	PPR (Peste Des Petits Ruminants)	- If the animals have not yet been vaccinated, give vaccine now for PPR (Peste Des Petits Ruminants).
	young ones	Enterotoxemia	- If the Lambs and Kids in particular should be given 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 excepts the young ones	Care & management for newly born one	-Artificial lighting and heating to the piglets. -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 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.
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		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	
		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:	1		
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 water. -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	<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>

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15.1 °C, mean relative humidity observed in morning and afternoon were	(max RH) & 22% (min RH). The average wind speed may be 3-4 km/hr.
93.00 % and 48.67 % respectively. The average wind speed range was 6.4	Wind direction may be South Westerly to North Westerly during the next
– 8.9 km/hr.	five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops		•	
Pre-kharif Rice	Nursery to transplanting		<ul> <li>Prepare nursery bed of 700 m<sup>2</sup> area, apply well decomposed FYM/ compost @ 1 t/ 700 m<sup>2</sup> at final leveling. Seed rate is 40-60 kg for a hectare. Recommended varieties are RC Maniphou 4, 5 and 12.</li> <li>Apply 65 kg Urea, 250 kg SSP and 45kg MOP per ha as basal dose at the time of final leveling before transplanting. Row planting of 35-40 days old seedlings may be done at a spacing of 25x10cm using beaded rope.</li> <li>If flowering has started, then four bee boxes may be kept for one hectare crop</li> </ul>
Rapeseed/ Mustard	Flowering		area. Avoid spray of insecticides in such area.
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Okra/bhindi	Land preparation		-land preparation for sowing of Bhindi should be started.
Tomato	Top dressing and earthing up		-40-45 days old tomato should be top dressed with 25 kg urea followed by earthing up.
Cucurbits (bottle gourd, sponge gourd, pumpkin, water melon, etc.)	Offseason		<ul> <li>-Prepare field into fine tilt and exposed to the sun for 7-10 days to avoid multiplication of mycelium for powdery mildew.</li> <li>- Spray Bayleton (Triademofon 25% WP) @ 7.5 g/ pump (15litre capacity) or Ntivo (Tebuconazole 50% + Trifloxystrobin 25% W. G) at the same dose.</li> <li>- Transplant seedlings of 4-stage leaves at warm temperature.</li> </ul>
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> </ul>



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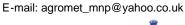


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Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	<ul> <li>To protect birds of all age groups from inclement weather, there should be adequate arrangements 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>
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Sheep/ Goat	All age groups excepts the	PPR (Peste Des Petits Ruminants)	- If the animals have not yet been vaccinated, give vaccine now for PPR (Peste Des Petits Ruminants).
	young ones	Enterotoxemia	- If the Lambs and Kids in particular should be given 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 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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		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.
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		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.
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		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:	1		
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 water. -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	<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>

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



# "Gramin Krishi Mausam Seva"

#### MANIPUR BULLETIN 11<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 12<sup>th</sup> to 16<sup>th</sup> March, 2016 as below:

Significant past weather for the preceding bi-weekly of	Weather forecast for next five days of Bishnupur
Imphal - West (8 <sup>th</sup> to 10 <sup>th</sup> March, 2016)	$(12^{\text{th}} \text{ to } 16^{\text{th}} \text{ March}, 2016)$
The sky was mainly cloudy to partly clear. The Rainfall 17.3 mm was	There may be light rain during the next five days. The Sky will remain
recorded during past three days. Maximum temperature range observed	mainly cloudy to partly clear, with maximum temp. of $28.0 - 31.0$ °C &
was 26.9 – 27.9 °C, range of minimum temperature observed was 11.6 –	minimum temp. 12.0 – 14.0 °C. Relative humidity may reach upto 88%
15.1 °C, mean relative humidity observed in morning and afternoon were	(max RH) & 22 % (min RH). The average wind speed may be 4-6 km/hr.
93.00 % and 48.67 % respectively. The average wind speed range was 6.4	Wind direction may be South south Westerly to South west Westerly
– 8.9 km/hr.	during the next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops	1	L	
Pre-kharif Rice	Nursery to transplanting		<ul> <li>Prepare nursery bed of 700 m<sup>2</sup> area, apply well decomposed FYM/ compost @ 1 t/ 700 m<sup>2</sup> at final leveling. Seed rate is 40-60 kg for a hectare. Recommended varieties are RC Maniphou 4, 5 and 12.</li> <li>Apply 65 kg Urea, 250 kg SSP and 45kg MOP per ha as basal dose at the time of final leveling before transplanting. Row planting of 35-40 days old seedlings may be done at a spacing of 25x10cm using beaded rope.</li> </ul>
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			
French bean	Land preparation		<ul> <li>-Land preparation for sowing of French bean should be started.</li> <li>-Quality seed should be collected.</li> <li>-Seed treatment against soil born diseases is advised preferably Trichoderma harzianum @ 10gm/kg seed is recommended.</li> <li>-Seed rate for dwarf variety are 50-60 kg/ha at 10X30 cm spacing and 30-40 kg at 30X45 cm spacing for pole type.</li> </ul>
Okra/bhindi	Land preparation		-land preparation for sowing of Bhindi should be started.
Tomato	Top dressing and earthing up		-40-45 days old tomato should be top dressed with 25 kg urea followed by earthing up.
Cucurbits (bottle gourd, sponge gourd, pumpkin, water melon, etc.)	Offseason		<ul> <li>-Prepare field into fine tilt and exposed to the sun for 7-10 days to avoid multiplication of mycelium for powdery mildew.</li> <li>- Spray Bayleton (Triademofon 25% WP) @ 7.5 g/ pump (15litre capacity) or Ntivo (Tebuconazole 50% + Trifloxystrobin 25% W. G) at the same dose.</li> <li>- Transplant seedlings of 4-stage leaves at warm temperature.</li> </ul>
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> </ul>



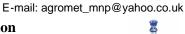


# "Gramin Krishi Mausam Seva"

			- 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.
Animal Sciences	L	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>
		Ranikhet Diseases	<ul> <li>Birds must be vaccinated as per recommended schedule mentioned below as the probability of occurrence of the disease is high during March- April months.</li> <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> <li>3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).</li> <li>After that at every two months interval.</li> </ul>
Sheep/ Goat	All age groups excepts the	PPR (Peste Des Petits Ruminants)	- If the animals have not yet been vaccinated, give vaccine now for PPR (Peste Des Petits Ruminants).
	young ones	Enterotoxemia	- If the Lambs and Kids in particular should be given 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 excepts the	Care & management for newly born one	-Artificial lighting and heating to the piglets. -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 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 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	
		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/ brooders	Pond and water	-Maintain minimum depth of 1.5 – 2.0 m by filling fresh and clean water. -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	<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>

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# "Gramin Krishi Mausam Seva"

### MANIPUR BULLETIN 11<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 12<sup>th</sup> to 16<sup>th</sup> March, 2016 as below:

Significant past weather for the preceding bi-weekly of	Weather forecast for next five days of Chandel
Imphal - West (8 <sup>th</sup> to 10 <sup>th</sup> March, 2016)	(12 <sup>th</sup> to 16 <sup>th</sup> March, <b>2016</b> )
The sky was mainly cloudy to partly clear. The Rainfall 17.3 mm was	There may be light rain during the next five days. The Sky will remain
recorded during past three days. Maximum temperature range observed	mainly cloudy to partly clear, with maximum temp. of $27.0 - 31.0$ °C &
was 26.9 – 27.9 °C, range of minimum temperature observed was 11.6 –	minimum temp. 13.0 - 14.0 °C. Relative humidity may reach upto 72%
15.1 °C, mean relative humidity observed in morning and afternoon were	(max RH) & 22 % (min RH). The average wind speed may be 4-6 km/hr.
93.00 % and 48.67 % respectively. The average wind speed range was 6.4	Wind direction may be South south Westerly to North Westerly during the
– 8.9 km/hr.	next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops		•	
Pre-kharif Rice	Nursery to transplanting		<ul> <li>Prepare nursery bed of 700 m<sup>2</sup> area, apply well decomposed FYM/ compost @ 1 t/ 700 m<sup>2</sup> at final leveling. Seed rate is 40-60 kg for a hectare. Recommended varieties are RC Maniphou 4, 5 and 12.</li> <li>Apply 65 kg Urea, 250 kg SSP and 45kg MOP per ha as basal dose at the time of final leveling before transplanting. Row planting of 35-40 days old seedlings may be done at a spacing of 25x10cm using beaded rope.</li> </ul>
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		•	
French bean	Land preparation		<ul> <li>-Land preparation for sowing of French bean should be started.</li> <li>-Quality seed should be collected.</li> <li>-Seed treatment against soil born diseases is advised preferably Trichoderma harzianum @ 10gm/kg seed is recommended.</li> <li>-Seed rate for dwarf variety are 50-60 kg/ha at 10X30 cm spacing and 30-40 kg at 30X45 cm spacing for pole type.</li> </ul>
Okra/bhindi	Land preparation		-land preparation for sowing of Bhindi should be started.
Tomato	Top dressing and earthing up		-40-45 days old tomato should be top dressed with 25 kg urea followed by earthing up.
Cucurbits (bottle gourd, sponge gourd, pumpkin, water melon, etc.)	Offseason		<ul> <li>-Prepare field into fine tilt and exposed to the sun for 7-10 days to avoid multiplication of mycelium for powdery mildew.</li> <li>- Spray Bayleton (Triademofon 25% WP) @ 7.5 g/ pump (15litre capacity) or Ntivo (Tebuconazole 50% + Trifloxystrobin 25% W. G) at the same dose.</li> <li>- Transplant seedlings of 4-stage leaves at warm temperature.</li> </ul>
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> </ul>



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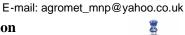


# "Gramin Krishi Mausam Seva"

			- 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.
Animal Sciences	I		
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
-	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>
		Ranikhet Diseases	<ul> <li>Birds must be vaccinated as per recommended schedule mentioned below as the probability of occurrence of the disease is high during March- April months.</li> <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> <li>3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).</li> <li>After that at every two months interval.</li> </ul>
Sheep/ Goat	All age groups excepts the	PPR (Peste Des Petits Ruminants)	- If the animals have not yet been vaccinated, give vaccine now for PPR (Peste Des Petits Ruminants).
	young ones	Enterotoxemia	- If the Lambs and Kids in particular should be given 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 excepts the young ones	Care & management for newly born one	-Artificial lighting and heating to the piglets. -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 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 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	
		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:			
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 water. -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	<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>

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



# "Gramin Krishi Mausam Seva"

### MANIPUR BULLETIN 11<sup>th</sup> March, 2016

#### Churachandpur

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Significant past weather for the preceding bi-weekly of	Weather forecast for next five days of Churachandpur
Imphal - West (8 <sup>th</sup> to 10 <sup>th</sup> March, 2016)	(12 <sup>th</sup> to 16 <sup>th</sup> March, <b>2016</b> )
The sky was mainly cloudy to partly clear. The Rainfall 17.3 mm was	There may be light rain during the next five days. The Sky will remain
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was 26.9 – 27.9 °C, range of minimum temperature observed was 11.6 –	minimum temp. 13.0 - 16.0 °C. Relative humidity may reach upto 91%
15.1 °C, mean relative humidity observed in morning and afternoon were	(max RH) & 23 % (min RH). The average wind speed may be 4-5 km/hr.
93.00 % and 48.67 % respectively. The average wind speed range was 6.4	Wind direction may be Southerly to Southerly during the next five days.
- 8.9 km/hr.	

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops	•	•	
Pre-kharif Rice	Nursery to transplanting		<ul> <li>Prepare nursery bed of 700 m<sup>2</sup> area, apply well decomposed FYM/ compost @ 1 t/ 700 m<sup>2</sup> at final leveling. Seed rate is 40-60 kg for a hectare. Recommended varieties are RC Maniphou 4, 5 and 12.</li> <li>Apply 65 kg Urea, 250 kg SSP and 45kg MOP per ha as basal dose at the time of final leveling before transplanting. Row planting of 35-40 days old seedlings may be done at a spacing of 25x10cm using beaded rope.</li> </ul>
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>
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French bean	Land preparation		<ul> <li>-Land preparation for sowing of French bean should be started.</li> <li>-Quality seed should be collected.</li> <li>-Seed treatment against soil born diseases is advised preferably Trichoderma harzianum @ 10gm/kg seed is recommended.</li> <li>-Seed rate for dwarf variety are 50-60 kg/ha at 10X30 cm spacing and 30-40 kg at 30X45 cm spacing for pole type.</li> </ul>
Okra/bhindi	Land preparation		-land preparation for sowing of Bhindi should be started.
Tomato	Top dressing and earthing up		-40-45 days old tomato should be top dressed with 25 kg urea followed by earthing up.
Cucurbits (bottle gourd, sponge gourd, pumpkin, water melon, etc.)	Offseason		<ul> <li>-Prepare field into fine tilt and exposed to the sun for 7-10 days to avoid multiplication of mycelium for powdery mildew.</li> <li>- Spray Bayleton (Triademofon 25% WP) @ 7.5 g/ pump (15litre capacity) or Ntivo (Tebuconazole 50% + Trifloxystrobin 25% W. G) at the same dose.</li> <li>- Transplant seedlings of 4-stage leaves at warm temperature.</li> </ul>
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. 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> </ul>





# "Gramin Krishi Mausam Seva"

			- 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.
Animal Sciences Name of the animal	C now th store	Disease/ infestation	A gra mataonalogical advisation
	8		Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck) All age groups	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>
		Ranikhet Diseases	<ul> <li>Birds must be vaccinated as per recommended schedule mentioned below as the probability of occurrence of the disease is high during March- April months.</li> <li>I. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds.</li> <li>R<sub>2</sub>B vaccine of 8-9 weeks of age group birds (layers).</li> <li>Killed ND virus vaccine of 16-18 weeks of age group birds (layers).</li> <li>After that at every two months interval.</li> </ul>
Sheep/ Goat	All age groups excepts the	PPR (Peste Des Petits Ruminants)	- If the animals have not yet been vaccinated, give vaccine now for PPR (Peste Des Petits Ruminants).
	young ones	Enterotoxemia	- If the Lambs and Kids in particular should be given 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 excepts the	Care & management for newly born one	-Artificial lighting and heating to the piglets. -Provide adequate bedding materials.
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		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 ecto- parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used.
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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.
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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 water. -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	<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 11<sup>th</sup> March, 2016

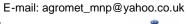
## Imphal West

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 12<sup>th</sup> to 16<sup>th</sup> March, 2016 as below:

Significant past weather for the preceding bi-weekly of	Weather forecast for next five days of Imphal West
Imphal - West (8 <sup>th</sup> to 10 <sup>th</sup> March, 2016)	(12 <sup>th</sup> to 16 <sup>th</sup> March, <b>2016</b> )
The sky was mainly cloudy to partly clear. The Rainfall 17.3 mm was	There may be light rain during the next five days. The Sky will remain
recorded during past three days. Maximum temperature range observed	mainly cloudy to partly clear, with maximum temp. of $27.0 - 30.0$ °C &
was 26.9 – 27.9 °C, range of minimum temperature observed was 11.6 –	minimum temp. 15.0 – 16.0 °C. Relative humidity may reach upto 96%
15.1 °C, mean relative humidity observed in morning and afternoon were	(max RH) & 20 % (min RH). The average wind speed may be 2-3 km/hr.
93.00 % and 48.67 % respectively. The average wind speed range was 6.4	Wind direction may be South Westerly to North north Westerly during the
– 8.9 km/hr.	next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Pre-kharif Rice	Nursery to transplanting		<ul> <li>Prepare nursery bed of 700 m<sup>2</sup> area, apply well decomposed FYM/ compost @ 1 t/ 700 m<sup>2</sup> at final leveling. Seed rate is 40-60 kg for a hectare. Recommended varieties are RC Maniphou 4, 5 and 12.</li> <li>Apply 65 kg Urea, 250 kg SSP and 45kg MOP per ha as basal dose at the time of final leveling before transplanting. Row planting of 35-40 days old seedlings may be done at a spacing of 25x10cm using beaded rope.</li> </ul>
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			
French bean	Land preparation		<ul> <li>-Land preparation for sowing of French bean should be started.</li> <li>-Quality seed should be collected.</li> <li>-Seed treatment against soil born diseases is advised preferably Trichoderma harzianum @ 10gm/kg seed is recommended.</li> <li>-Seed rate for dwarf variety are 50-60 kg/ha at 10X30 cm spacing and 30-40 kg at 30X45 cm spacing for pole type.</li> </ul>
Okra/bhindi	Land preparation		-land preparation for sowing of Bhindi should be started.
Tomato	Top dressing and earthing up		-40-45 days old tomato should be top dressed with 25 kg urea followed by earthing up.
Cucurbits (bottle gourd, sponge gourd, pumpkin, water melon, etc.)	Offseason		<ul> <li>-Prepare field into fine tilt and exposed to the sun for 7-10 days to avoid multiplication of mycelium for powdery mildew.</li> <li>- Spray Bayleton (Triademofon 25% WP) @ 7.5 g/ pump (15litre capacity) or Ntivo (Tebuconazole 50% + Trifloxystrobin 25% W. G) at the same dose.</li> <li>- Transplant seedlings of 4-stage leaves at warm temperature.</li> </ul>
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>





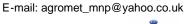


# "Gramin Krishi Mausam Seva"

Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry All age groups (Chicken/ Turkey/ Duck)	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>	
	Ranikhet Diseases	<ul> <li>Birds must be vaccinated as per recommended schedule mentioned below as the probability of occurrence of the disease is high during March- April months.</li> <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> <li>3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).</li> <li>After that at every two months interval.</li> </ul>	
Sheep/ Goat	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 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 excepts the young ones	Care & management for newly born one	-Artificial lighting and heating to the piglets. -Provide adequate bedding materials.
	young ones	Deworming	-Give Morantel citrate tablet @ 15 mg/kg of body weight.
	Ectoparasitism	<ul> <li>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.</li> </ul>	
		Hog Cholera	-Vaccination against swine fever must be carried out.
Cattle 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.
		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/ brooders	Pond and water	-Maintain minimum depth of $1.5 - 2.0$ m by filling fresh and clean water. -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	<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>

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





# "Gramin Krishi Mausam Seva"

## MANIPUR BULLETIN 11<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 12<sup>th</sup> to 16<sup>th</sup> March, 2016 as below:

Significant past weather for the preceding bi-weekly of	Weather forecast for next five days of Imphal-East
Imphal - West (8 <sup>th</sup> to 10 <sup>th</sup> March, 2016)	(12 <sup>th</sup> to 16 <sup>th</sup> March, <b>2016</b> )
The sky was mainly cloudy to partly clear. The Rainfall 17.3 mm was	There may be light rain during the next five days. The Sky will remain
recorded during past three days. Maximum temperature range observed	mainly cloudy to partly clear, with maximum temp. of $27.0 - 30.0$ °C &
was 26.9 – 27.9 °C, range of minimum temperature observed was 11.6 –	minimum temp. 15.0 – 16.0 °C. Relative humidity may reach upto 96%
15.1 °C, mean relative humidity observed in morning and afternoon were	(max RH) & 20 % (min RH). The average wind speed may be 2-3 km/hr.
93.00 % and 48.67 % respectively. The average wind speed range was 6.4	Wind direction may be South Westerly to North north Westerly during the
– 8.9 km/hr.	next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops		•	
Pre-kharif Rice	Nursery to transplanting		<ul> <li>Prepare nursery bed of 700 m<sup>2</sup> area, apply well decomposed FYM/ compost @ 1 t/ 700 m<sup>2</sup> at final leveling. Seed rate is 40-60 kg for a hectare. Recommended varieties are RC Maniphou 4, 5 and 12.</li> <li>Apply 65 kg Urea, 250 kg SSP and 45kg MOP per ha as basal dose at the time of final leveling before transplanting. Row planting of 35-40 days old seedlings may be done at a spacing of 25x10cm using beaded rope.</li> </ul>
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		•	
French bean	Land preparation		<ul> <li>-Land preparation for sowing of French bean should be started.</li> <li>-Quality seed should be collected.</li> <li>-Seed treatment against soil born diseases is advised preferably Trichoderma harzianum @ 10gm/kg seed is recommended.</li> <li>-Seed rate for dwarf variety are 50-60 kg/ha at 10X30 cm spacing and 30-40 kg at 30X45 cm spacing for pole type.</li> </ul>
Okra/bhindi	Land preparation		-land preparation for sowing of Bhindi should be started.
Tomato	Top dressing and earthing up		-40-45 days old tomato should be top dressed with 25 kg urea followed by earthing up.
Cucurbits (bottle gourd, sponge gourd, pumpkin, water melon, etc.)	Offseason		<ul> <li>-Prepare field into fine tilt and exposed to the sun for 7-10 days to avoid multiplication of mycelium for powdery mildew.</li> <li>- Spray Bayleton (Triademofon 25% WP) @ 7.5 g/ pump (15litre capacity) or Ntivo (Tebuconazole 50% + Trifloxystrobin 25% W. G) at the same dose.</li> <li>- Transplant seedlings of 4-stage leaves at warm temperature.</li> </ul>
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> </ul>





# "Gramin Krishi Mausam Seva"

			- 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.
Animal Sciences	I		
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
	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>
		Ranikhet Diseases	<ul> <li>Birds must be vaccinated as per recommended schedule mentioned below as the probability of occurrence of the disease is high during March- April months.</li> <li>I. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds.</li> <li>R<sub>2</sub>B vaccine of 8-9 weeks of age group birds (layers).</li> <li>Killed ND virus vaccine of 16-18 weeks of age group birds (layers).</li> <li>After that at every two months interval.</li> </ul>
Sheep/ Goat	All age groups excepts the	PPR (Peste Des Petits Ruminants)	- If the animals have not yet been vaccinated, give vaccine now for PPR (Peste Des Petits Ruminants).
	young ones	Enterotoxemia	- If the Lambs and Kids in particular should be given 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 excepts the	Care & management for newly born one	-Artificial lighting and heating to the piglets. -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 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 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	
		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/ brooders	Pond and water	-Maintain minimum depth of 1.5 – 2.0 m by filling fresh and clean water. -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	<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



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# "Gramin Krishi Mausam Seva"

# MANIPUR BULLETIN 11<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 12<sup>th</sup> to 16<sup>th</sup> March, 2016 as below:

Significant past weather for the preceding bi-weekly of	Weather forecast for next five days of Senapati
Imphal - West (8 <sup>th</sup> to 10 <sup>th</sup> March, 2016)	(12 <sup>th</sup> to 16 <sup>th</sup> March, <b>2016</b> )
The sky was mainly cloudy to partly clear. The Rainfall 17.3 mm was	There may be light rain during the next five days. The Sky will remain
recorded during past three days. Maximum temperature range observed	mainly cloudy to partly clear, with maximum temp. of $27.0 - 30.0$ °C &
was 26.9 – 27.9 °C, range of minimum temperature observed was 11.6 –	minimum temp. 9.0 - 11.0 °C. Relative humidity may reach upto 91%
15.1 °C, mean relative humidity observed in morning and afternoon were	(max RH) & 21 % (min RH). The average wind speed may be 2-3 km/hr.
93.00 % and 48.67 % respectively. The average wind speed range was 6.4	Wind direction may be South Westerly to North Westerly during the next
– 8.9 km/hr.	five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops	•		
Pre-kharif Rice	Nursery to transplanting		<ul> <li>Prepare nursery bed of 700 m<sup>2</sup> area, apply well decomposed FYM/ compost @ 1 t/ 700 m<sup>2</sup> at final leveling. Seed rate is 40-60 kg for a hectare. Recommended varieties are RC Maniphou 4, 5 and 12.</li> <li>Apply 65 kg Urea, 250 kg SSP and 45kg MOP per ha as basal dose at the time of final leveling before transplanting. Row planting of 35-40 days old seedlings may be done at a spacing of 25x10cm using beaded rope.</li> </ul>
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	•	•	
French bean	Land preparation		<ul> <li>-Land preparation for sowing of French bean should be started.</li> <li>-Quality seed should be collected.</li> <li>-Seed treatment against soil born diseases is advised preferably Trichoderma harzianum @ 10gm/kg seed is recommended.</li> <li>-Seed rate for dwarf variety are 50-60 kg/ha at 10X30 cm spacing and 30-40 kg at 30X45 cm spacing for pole type.</li> </ul>
Okra/bhindi	Land preparation		-land preparation for sowing of Bhindi should be started.
Tomato	Top dressing and earthing up		-40-45 days old tomato should be top dressed with 25 kg urea followed by earthing up.
Cucurbits (bottle gourd, sponge gourd, pumpkin, water melon, etc.)	Offseason		<ul> <li>-Prepare field into fine tilt and exposed to the sun for 7-10 days to avoid multiplication of mycelium for powdery mildew.</li> <li>- Spray Bayleton (Triademofon 25% WP) @ 7.5 g/ pump (15litre capacity) or Ntivo (Tebuconazole 50% + Trifloxystrobin 25% W. G) at the same dose.</li> <li>- Transplant seedlings of 4-stage leaves at warm temperature.</li> </ul>
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> </ul>





# "Gramin Krishi Mausam Seva"

			- 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.
Animal Sciences			
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>
		Ranikhet Diseases	<ul> <li>Birds must be vaccinated as per recommended schedule mentioned below as the probability of occurrence of the disease is high during March- April months.</li> <li>I. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds.</li> <li>R<sub>2</sub>B vaccine of 8-9 weeks of age group birds (layers).</li> <li>Killed ND virus vaccine of 16-18 weeks of age group birds (layers).</li> <li>After that at every two months interval.</li> </ul>
Sheep/ Goat	All age groups excepts the	PPR (Peste Des Petits Ruminants)	- If the animals have not yet been vaccinated, give vaccine now for PPR (Peste Des Petits Ruminants).
	young ones	Enterotoxemia	- If the Lambs and Kids in particular should be given 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 excepts the young ones	Care & management for newly born one	-Artificial lighting and heating to the piglets. -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 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 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	
		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
_	Fries/ fingerlings/ brooders	Pond and water	-Maintain minimum depth of $1.5 - 2.0$ m by filling fresh and clean water. -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	<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>