

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



"Gramin Krishi Mausam Seva"

MANIPUR BULLETIN 5th April, 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 6th to 10th April, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West $(1^{st}$ to 4^{th} April, 2016)

The sky was variable sky to overcast. The Rainfall of 32.3 mm was recorded during past four days. Maximum temperature range observed was 21.3-28.3 °C, range of minimum temperature observed was 10.2-16.5 °C, mean relative humidity observed in morning and afternoon were 997 % and 56.0 % respectively. The average wind speed range was 2.7 to 4.8 km/hr.

Weather forecast for next five days of Senapati

(6th to 10th April, **2016**)

There may be rain during the next five days. Sky will remain fair to mainly cloudy, with maximum temp. of $27.0-30.0\,^{\circ}\text{C}\,$ & minimum temp. $15.0-17.0\,^{\circ}\text{C}.$ Relative humidity may reach upto 95% (max RH) & 34% (min RH). The average wind speed may be 2-3 km/hr. Wind direction may be South Westerly to Westerly during the next five days.

Weather Outlook for subsequent 2 days from 10th to 12th April, 2016 Rain/thunderstorm at many places very likely over northeastern states Weather Warning during next 5 days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops	•		
Early kharif rice	Main field preparation to transplanting		 - At the time of final leveling, apply 97 kg Urea, 87Kg DAP and 45 Kg MOP per ha. - Seedlings may be uprooted at 30-45 days after sowing for transplanting. Seedlings may be transplanted immediately after uprooting to avoid transplanting shock. - Row planting of 2-3 seedlings per hill at 25x10 cm using beaded rope may be done. - To enhance the establishment of transplanted seedlings, water depth of 2-3cm should be maintained in the field after transplanting then it may be increased gradually.
Field Pea/ Lentil	Flowering	Powdery Mildew Aphid	 - Spray Bayleton (Triademofon 25%WP) @ 7.5 g/ pump (15litre capacity) or Dinocap (Karathane 46% EC) @ 7.5ml/ pump. - 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.
Horticulture Crops			1 - 17
Tomato	Fruit borer		-Prophylactic measure to protect from Early blight of Tomato is recommended. D. M-45 (Mencozeb) @ 2gm/l may be sprayed.
Water melon			-In early stage the beds and ridges should be free from weeds. In the later stage the vine will automatically cover the space in between the plants. Hence, weeding cum top dressing is recommended
Allium odorosum			-Plantation of <i>Allium odorosum</i> (Maroi nakuppi)High density planting (1-0-12 nos. of rhizome) per hill is recommended for high yield at a spacing of 6" X 6"Coriander seed may also be sown in between the Allium Species as an intercrop.
Fruit plants (Banana, Lime, Lemon, Orange, Kiwi, etc.)	Procurement of planting material		-Jungle cutting and preparation of pit for planting/transplanting of these fruit plants should be started. Pit preparation should be done at least 1 month ahead of planting. -Procure quality planting material
Ginger/Turmeric	Land preparation		 -Land preparation for plantation of Ginger/turmeric may be started. -Upland areas are more suitable for the crop. -Ginger rhizome seeds affected by rhizome rot should be discarded.
Potato	For seed		- 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. - remove off type plants showing mottling, mosaic, wrinkle and leaf rolling symptom. - Cut the haulm at ground level in Jan/Feb, in the valley. Ensure no regrowth of the stem. - Harvest the crop when the skin of the tuber has become firm.



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				- Harvest should be done on sunny day only. Heap the produce in the shade fo curing of skin and left undisturbed for 15-20 days.
Animal Sciences	, <u> </u>		L	
Name of the animal	Growth stage	Disease	/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care &	management	 To protect birds of all age groups from inclement weather, there should adequate arrangements for artificial lighting and heating. Needed to increase energy giving ingredients of feed (i.e. Maize, Whea Bajra etc.) and can be added 5% more.
		Ranikhe	t Diseases	Birds must be vaccinated as per recommended schedule mentioned below as probability of occurrence of the disease is high during March- April months. 1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. 2. R ₂ B vaccine of 8-9 weeks of age group birds (layers). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers). After that at every two months interval.
Sheep/ Goat	All age groups excepts the	PPR (Pe	este Des Petits Rumina	ts) - If the animals have not yet been vaccinated, give vaccine now for PPR (Pes Des Petits Ruminants).
	young ones	Enteroto		 If the Lambs and Kids in particular should be given the caccination to preve Enterotoxaemia.
		Ectopar		 - 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. 1 litre of water) can also be used.
Pig	All age groups excepts the	Care & one	management for newly	-Artificial lighting and heating to the pigletsProvide adequate bedding materials.
	young ones	Deworn	ning	-Give Morantel citrate tablet @ 15 mg/kg of body weight.
		Ectopar		- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ectoparasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. 1 litre of water) can also be used.
		Hog Ch	olera	-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	Ectopar	asitism	 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. 1 litre of water) can also be used.
		Johnes of	lisease & Sterility	Immediate proper treatment for the disease should be provided.
	Fodde		crops	 -Maize should be sown for use as green fodder. -Napier/Guinea grass may be transplanted. -Silage can be prepared.
		Puerper	al Fever in Pregnant an	
		Decreas	e in milk production	-The milk & urine samples must be sent for testing.
	Breedable age group		ed 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:	T.a.			
Type of Farming	Stage		Management	Agro-metrological advisories
Carp culture	Fries/ fingerlings/	brooders	Pond and water	-Maintain minimum depth of 1.5 – 2.0 m by filling fresh and clean waterApply Agri-Lime in brooder pond at small quantity at an interval of 30 days regularly.
			Feed	Provide feed 1-2 times @ 2 % body weight per day.
			Fish	 - Male and female brooders should be stock in separate ponds for early breeding programs for Common Carp. - Harvesting of fish may be done in area where water availability is low.



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MANIPUR BULLETIN 5th April, 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 6th to 10th April, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West $(1^{st}\ to\ 4^{th}\ April,\ 2016)$

The sky was variable sky to overcast. The Rainfall of 32.3 mm was recorded during past four days. Maximum temperature range observed was 21.3–28.3 $^{\circ}$ C, range of minimum temperature observed was 10.2 – 16.5 $^{\circ}$ C, mean relative humidity observed in morning and afternoon were 997 % and 56.0 % respectively. The average wind speed range was 2.7 to 4.8 km/hr.

Weather forecast for next five days of Tamenglong $(6^{th} \text{ to } 10^{th} \text{ April}, 2016)$

There may be rain during the next five days. Sky will remain fair to mainly cloudy, with maximum temp. of $29.0-31.0\,^{\circ}\text{C}\,$ & minimum temp. $15.0-17.0\,^{\circ}\text{C}\,$. Relative humidity may reach upto 97% (max RH) & 41% (min RH). The average wind speed may be 2-3 km/hr. Wind direction may be South south Westerly to South west Westerly during the next five days.

Weather Outlook for subsequent 2 days from 10th to 12th April, 2016 Rain/thunderstorm at many places very likely over northeastern states Weather Warning during next 5 days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops	-		
Early kharif rice	Main field preparation to transplanting		 - At the time of final leveling, apply 97 kg Urea, 87Kg DAP and 45 Kg MOP per ha. - Seedlings may be uprooted at 30-45 days after sowing for transplanting. Seedlings may be transplanted immediately after uprooting to avoid transplanting shock. - Row planting of 2-3 seedlings per hill at 25x10 cm using beaded rope may be done. - To enhance the establishment of transplanted seedlings, water depth of 2-3cm should be maintained in the field after transplanting then it may be increased gradually.
Field Pea/ Lentil	Flowering	Powdery Mildew Aphid	 Spray Bayleton (Triademofon 25%WP) @ 7.5 g/ pump (15litre capacity) or Dinocap (Karathane 46% EC) @ 7.5ml/ pump. 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.
Horticulture Crops	· I		- FJ
Tomato	Fruit borer		-Prophylactic measure to protect from Early blight of Tomato is recommended. D. M-45 (Mencozeb) @ 2gm/l may be sprayed.
Water melon			-In early stage the beds and ridges should be free from weeds. In the later stage the vine will automatically cover the space in between the plants. Hence, weeding cum top dressing is recommended
Allium odorosum			-Plantation of <i>Allium odorosum</i> (Maroi nakuppi)High density planting (1-0-12 nos. of rhizome) per hill is recommended for high yield at a spacing of 6" X 6"Coriander seed may also be sown in between the Allium Species as an intercrop.
Fruit plants (Banana, Lime, Lemon, Orange, Kiwi, etc.)	Procurement of planting material		-Jungle cutting and preparation of pit for planting/transplanting of these fruit plants should be started. Pit preparation should be done atleast 1 month ahead of planting. -Procure quality planting material
Ginger/Turmeric	Land preparation		-Land preparation for plantation of Ginger/turmeric may be startedUpland areas are more suitable for the cropGinger rhizome seeds affected by rhizome rot should be discarded.
Potato	For seed		- 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. - remove off type plants showing mottling, mosaic, wrinkle and leaf rolling symptom. - Cut the haulm at ground level in Jan/Feb, in the valley. Ensure no regrowth of the stem. - Harvest the crop when the skin of the tuber has become firm.



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					larvest should be done on sunny day only. Heap the produce in the shade for ring of skin and left undisturbed for 15-20 days.
Animal Sciences					·
Name of the animal	Growth stage	Disease	infestatio	on	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups		managemei	nt	 To protect birds of all age groups from inclement weather, there should be adequate arrangements for artificial lighting and heating. Needed to increase energy giving ingredients of feed (i.e. Maize, Wheat, Bajra etc.) and can be added 5% more.
		Ranikhe	Diseases		Birds must be vaccinated as per recommended schedule mentioned below as the probability of occurrence of the disease is high during March- April months. 1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. 2. R ₂ B vaccine of 8-9 weeks of age group birds (layers). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers). After that at every two months interval.
Sheep/ Goat	All age groups excepts the	·		its Ruminants)	- If the animals have not yet been vaccinated, give vaccine now for PPR (Peste Des Petits Ruminants).
	young ones	Enteroto			- 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 ectoparasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used.
Pig	All age groups excepts the	Care & management for newly born one			-Artificial lighting and heating to the pigletsProvide adequate bedding materials.
	young ones	Deworming			-Give Morantel citrate tablet @ 15 mg/kg of body weight.
		Ectoparasitism			- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ectoparasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used.
		Hog Cholera			-Vaccination against swine fever must be carried out.
Cattle	All age groups excepts the	B.Q./ H.	S/FMD		-If the animals have not yet been vaccinated, give vaccine, now for Black Quarter, Haemorrhagic septicaemia, Foot & mouth Disease.
	young ones	Ectoparasitism Johnes disease & Sterility			- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ectoparasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used.
					Immediate proper treatment for the disease should be provided.
		Fodder c	crops al Fever in Pregnant animals		-Maize should be sown for use as green fodderNapier/Guinea grass may be transplantedSilage can be prepared.
		Puerpera			-50-60 gram of mineral mixture every day.
		Decrease	in milk pro	oduction	-The milk & urine samples must be sent for testing.
	Breedable age group		ed 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		Managem	J	ro-metrological advisories
Carp culture	Fries/ fingerlings.	/ brooders	Pond and v	-A _I	aintain minimum depth of $1.5 - 2.0$ m by filling fresh and clean water. pply Agri-Lime in brooder pond at small quantity at an interval of 30 days ularly.
		<u> </u>	Feed		ovide feed 1-2 times @ 2 % body weight per day.
			Fish	pro	Iale and female brooders should be stock in separate ponds for early breeding grams for Common Carp. arvesting of fish may be done in area where water availability is low.



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Thoubal

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Weather forecast for next five days of Thoubal

(6th to 10th April, **2016**)

There may be rain during the next five days. Sky will remain fair to mainly cloudy, with maximum temp. of $28.0-32.0\,^{\circ}\text{C}\,$ & minimum temp. $15.0-17.0\,^{\circ}\text{C}.$ Relative humidity may reach upto 94% (max RH) & 32% (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be South west Westerly to Westerly during the next five days.

Weather Outlook for subsequent 2 days from 10th to 12th April, 2016 Rain/thunderstorm at many places very likely over northeastern states Weather Warning during next 5 days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops	•	•	
Early kharif rice	Main field preparation to transplanting		 - At the time of final leveling, apply 97 kg Urea, 87Kg DAP and 45 Kg MOP per ha. - Seedlings may be uprooted at 30-45 days after sowing for transplanting. Seedlings may be transplanted immediately after uprooting to avoid transplanting shock. - Row planting of 2-3 seedlings per hill at 25x10 cm using beaded rope may be done. - To enhance the establishment of transplanted seedlings, water depth of 2-3cm should be maintained in the field after transplanting then it may be increased gradually.
Field Pea/ Lentil	Flowering	Powdery Mildew Aphid	 - Spray Bayleton (Triademofon 25%WP) @ 7.5 g/ pump (15litre capacity) or Dinocap (Karathane 46% EC) @ 7.5ml/ pump. - 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.
Horticulture Crops			1 - 17
Tomato	Fruit borer		-Prophylactic measure to protect from Early blight of Tomato is recommended. D. M-45 (Mencozeb) @ 2gm/l may be sprayed.
Water melon			-In early stage the beds and ridges should be free from weeds. In the later stage the vine will automatically cover the space in between the plants. Hence, weeding cum top dressing is recommended
Allium odorosum			-Plantation of <i>Allium odorosum</i> (Maroi nakuppi)High density planting (1-0-12 nos. of rhizome) per hill is recommended for high yield at a spacing of 6" X 6"Coriander seed may also be sown in between the Allium Species as an intercrop.
Fruit plants (Banana, Lime, Lemon, Orange, Kiwi, etc.)	Procurement of planting material		-Jungle cutting and preparation of pit for planting/transplanting of these fruit plants should be started. Pit preparation should be done atleast 1 month ahead of planting. -Procure quality planting material
Ginger/Turmeric	Land preparation		 -Land preparation for plantation of Ginger/turmeric may be started. -Upland areas are more suitable for the crop. -Ginger rhizome seeds affected by rhizome rot should be discarded.
Potato	For seed		- 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. - remove off type plants showing mottling, mosaic, wrinkle and leaf rolling symptom. - Cut the haulm at ground level in Jan/Feb, in the valley. Ensure no regrowth of the stem. - Harvest the crop when the skin of the tuber has become firm.



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				- Harvest should be done on sunny day only. Heap the produce in the shade fo curing of skin and left undisturbed for 15-20 days.
Animal Sciences	, <u> </u>		L	
Name of the animal	Growth stage	Disease	/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care &	management	 To protect birds of all age groups from inclement weather, there should adequate arrangements for artificial lighting and heating. Needed to increase energy giving ingredients of feed (i.e. Maize, Whea Bajra etc.) and can be added 5% more.
		Ranikhe	t Diseases	Birds must be vaccinated as per recommended schedule mentioned below as probability of occurrence of the disease is high during March- April months. 1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. 2. R ₂ B vaccine of 8-9 weeks of age group birds (layers). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers). After that at every two months interval.
Sheep/ Goat	All age groups excepts the	PPR (Pe	este Des Petits Rumina	ts) - If the animals have not yet been vaccinated, give vaccine now for PPR (Pes Des Petits Ruminants).
	young ones	Enteroto		 If the Lambs and Kids in particular should be given the caccination to preve Enterotoxaemia.
		Ectopar		 - 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. 1 litre of water) can also be used.
Pig	All age groups excepts the	Care & one	management for newly	-Artificial lighting and heating to the pigletsProvide adequate bedding materials.
	young ones	Deworn	ning	-Give Morantel citrate tablet @ 15 mg/kg of body weight.
		Ectopar		- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ectoparasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. 1 litre of water) can also be used.
		Hog Ch	olera	-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	Ectopar	asitism	 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. 1 litre of water) can also be used.
		Johnes of	lisease & Sterility	Immediate proper treatment for the disease should be provided.
	Fodde		crops	 -Maize should be sown for use as green fodder. -Napier/Guinea grass may be transplanted. -Silage can be prepared.
		Puerper	al Fever in Pregnant an	
		Decreas	e in milk production	-The milk & urine samples must be sent for testing.
	Breedable age group		ed 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:	T.a.			
Type of Farming	Stage		Management	Agro-metrological advisories
Carp culture	Fries/ fingerlings/	brooders	Pond and water	-Maintain minimum depth of 1.5 – 2.0 m by filling fresh and clean waterApply Agri-Lime in brooder pond at small quantity at an interval of 30 days regularly.
			Feed	Provide feed 1-2 times @ 2 % body weight per day.
			Fish	 - Male and female brooders should be stock in separate ponds for early breeding programs for Common Carp. - Harvesting of fish may be done in area where water availability is low.



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Weather forecast for next five days of Ukhrul

(6th to 10th April, **2016**)

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Weather Outlook for subsequent 2 days from 10th to 12th April, 2016 Rain/thunderstorm at many places very likely over northeastern states Weather Warning during next 5 days

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Water melon			-In early stage the beds and ridges should be free from weeds. In the later stage the vine will automatically cover the space in between the plants. Hence, weeding cum top dressing is recommended
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Fruit plants (Banana, Lime, Lemon, Orange, Kiwi, etc.)	Procurement of planting material		-Jungle cutting and preparation of pit for planting/transplanting of these fruit plants should be started. Pit preparation should be done atleast 1 month ahead of planting. -Procure quality planting material
Ginger/Turmeric	Land preparation		 -Land preparation for plantation of Ginger/turmeric may be started. -Upland areas are more suitable for the crop. -Ginger rhizome seeds affected by rhizome rot should be discarded.
Potato	For seed		- 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. - remove off type plants showing mottling, mosaic, wrinkle and leaf rolling symptom. - Cut the haulm at ground level in Jan/Feb, in the valley. Ensure no regrowth of the stem. - Harvest the crop when the skin of the tuber has become firm.



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



					larvest should be done on sunny day only. Heap the produce in the shade for ring of skin and left undisturbed for 15-20 days.
Animal Sciences					·
Name of the animal	Growth stage	Disease	infestatio	on	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups		managemei	nt	 To protect birds of all age groups from inclement weather, there should be adequate arrangements for artificial lighting and heating. Needed to increase energy giving ingredients of feed (i.e. Maize, Wheat, Bajra etc.) and can be added 5% more.
		Ranikhe	Diseases		Birds must be vaccinated as per recommended schedule mentioned below as the probability of occurrence of the disease is high during March- April months. 1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. 2. R ₂ B vaccine of 8-9 weeks of age group birds (layers). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers). After that at every two months interval.
Sheep/ Goat	All age groups excepts the	·		its Ruminants)	- If the animals have not yet been vaccinated, give vaccine now for PPR (Peste Des Petits Ruminants).
	young ones	Enteroto			- 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 ectoparasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used.
Pig	All age groups excepts the	Care & management for newly born one			-Artificial lighting and heating to the pigletsProvide adequate bedding materials.
	young ones	Deworming			-Give Morantel citrate tablet @ 15 mg/kg of body weight.
		Ectoparasitism			- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ectoparasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used.
		Hog Cholera			-Vaccination against swine fever must be carried out.
Cattle	All age groups excepts the	B.Q./ H.	S/FMD		-If the animals have not yet been vaccinated, give vaccine, now for Black Quarter, Haemorrhagic septicaemia, Foot & mouth Disease.
	young ones	Ectoparasitism Johnes disease & Sterility			- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ectoparasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used.
					Immediate proper treatment for the disease should be provided.
		Fodder c	crops al Fever in Pregnant animals		-Maize should be sown for use as green fodderNapier/Guinea grass may be transplantedSilage can be prepared.
		Puerpera			-50-60 gram of mineral mixture every day.
		Decrease	in milk pro	oduction	-The milk & urine samples must be sent for testing.
	Breedable age group		ed 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		Managem	J	ro-metrological advisories
Carp culture	Fries/ fingerlings.	/ brooders	Pond and v	-A _I	aintain minimum depth of $1.5 - 2.0$ m by filling fresh and clean water. pply Agri-Lime in brooder pond at small quantity at an interval of 30 days ularly.
		<u> </u>	Feed		ovide feed 1-2 times @ 2 % body weight per day.
			Fish	pro	Iale and female brooders should be stock in separate ponds for early breeding grams for Common Carp. arvesting of fish may be done in area where water availability is low.



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



"Gramin Krishi Mausam Seva"

MANIPUR BULLETIN 5th April, 2016

Bishnupur

IAAS, TCAR-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 6th to 10th April, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West $(1^{st}$ to 4^{th} April, 2016)

The sky was variable sky to overcast. The Rainfall of 32.3 mm was recorded during past four days. Maximum temperature range observed was 21.3-28.3 °C, range of minimum temperature observed was 10.2-16.5 °C, mean relative humidity observed in morning and afternoon were 997 % and 56.0 % respectively. The average wind speed range was 2.7 to 4.8 km/hr.

Weather forecast for next five days of Bishnupur $(6^{th} \text{ to } 10^{th} \text{ April}, 2016)$

There may be rain during the next five days. Sky will remain fair to mainly cloudy, with maximum temp. of $28.0-31.0\,^{\circ}\text{C}\,$ & minimum temp. $16.0-18.0\,^{\circ}\text{C}\,$. Relative humidity may reach upto 93% (max RH) & 36% (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be South Westerly to South west Westerly during the next five days.

Weather Outlook for subsequent 2 days from 10th to 12th April, 2016 Rain/thunderstorm at many places very likely over northeastern states Weather Warning during next 5 days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops	•		
Early kharif rice	Main field preparation to transplanting		 - At the time of final leveling, apply 97 kg Urea, 87Kg DAP and 45 Kg MOP per ha. - Seedlings may be uprooted at 30-45 days after sowing for transplanting. Seedlings may be transplanted immediately after uprooting to avoid transplanting shock. - Row planting of 2-3 seedlings per hill at 25x10 cm using beaded rope may be done. - To enhance the establishment of transplanted seedlings, water depth of 2-3cm should be maintained in the field after transplanting then it may be increased gradually.
Field Pea/ Lentil	Flowering	Powdery Mildew Aphid	 - Spray Bayleton (Triademofon 25%WP) @ 7.5 g/ pump (15litre capacity) or Dinocap (Karathane 46% EC) @ 7.5ml/ pump. - 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.
Horticulture Crops	•		
Tomato	Fruit borer		-Prophylactic measure to protect from Early blight of Tomato is recommended. D. M-45 (Mencozeb) @ 2gm/l may be sprayed.
Water melon			-In early stage the beds and ridges should be free from weeds. In the later stage the vine will automatically cover the space in between the plants. Hence, weeding cum top dressing is recommended
Allium odorosum			-Plantation of <i>Allium odorosum</i> (Maroi nakuppi)High density planting (1-0-12 nos. of rhizome) per hill is recommended for high yield at a spacing of 6" X 6"Coriander seed may also be sown in between the Allium Species as an intercrop.
Fruit plants (Banana, Lime, Lemon, Orange, Kiwi, etc.)	Procurement of planting material		-Jungle cutting and preparation of pit for planting/transplanting of these fruit plants should be started. Pit preparation should be done atleast 1 month ahead of planting. -Procure quality planting material
Ginger/Turmeric	Land preparation		 -Land preparation for plantation of Ginger/turmeric may be started. -Upland areas are more suitable for the crop. -Ginger rhizome seeds affected by rhizome rot should be discarded.
Potato	For seed		- 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. - remove off type plants showing mottling, mosaic, wrinkle and leaf rolling symptom. - Cut the haulm at ground level in Jan/Feb, in the valley. Ensure no regrowth of the stem. - Harvest the crop when the skin of the tuber has become firm.



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				- 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	e/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care &	management	 To protect birds of all age groups from inclement weather, there should be adequate arrangements for artificial lighting and heating. Needed to increase energy giving ingredients of feed (i.e. Maize, Wheat, Bajra etc.) and can be added 5% more.
		Ranikhe	et Diseases	Birds must be vaccinated as per recommended schedule mentioned below as the probability of occurrence of the disease is high during March- April months. 1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. 2. R ₂ B vaccine of 8-9 weeks of age group birds (layers). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers). After that at every two months interval.
Sheep/ Goat	All age groups excepts the		este Des Petits Ruminant	ts) - If the animals have not yet been vaccinated, give vaccine now for PPR (Peste Des Petits Ruminants).
	young ones	Enteroto		- If the Lambs and Kids in particular should be given the caccination to prevent Enterotoxaemia.
		Ectopar		- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ectoparasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used.
Pig	All age groups excepts the	Care & one	management for newly b	born -Artificial lighting and heating to the pigletsProvide adequate bedding materials.
	young ones	Deworn	ning	-Give Morantel citrate tablet @ 15 mg/kg of body weight.
		Ectopar	asitism	- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ectoparasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used.
		Hog Ch	olera	-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	Ectopar	asitism	- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ectoparasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used.
		Johnes of	disease & Sterility	Immediate proper treatment for the disease should be provided.
	Fodde		crops	-Maize should be sown for use as green fodder.-Napier/Guinea grass may be transplanted.-Silage can be prepared.
		Puerper	al Fever in Pregnant anir	
		Decreas	e in milk production	-The milk & urine samples must be sent for testing.
	Breedable age group	Control	led 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:	T ~		T = -	
Type of Farming	Stage		Management	Agro-metrological advisories
Carp culture	Fries/ fingerlings/	brooders	Pond and water	-Maintain minimum depth of $1.5 - 2.0$ m by filling fresh and clean waterApply Agri-Lime in brooder pond at small quantity at an interval of 30 days regularly.
			Feed	Provide feed 1-2 times @ 2 % body weight per day.
			Fish	Male and female brooders should be stock in separate ponds for early breeding programs for Common Carp. Howevering of fish may be done in error where water availability is law.
	1			- Harvesting of fish may be done in area where water availability is low.



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



"Gramin Krishi Mausam Seva"

MANIPUR BULLETIN 5th April, 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 6th to 10th April, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West $(1^{st}\ to\ 4^{th}\ April,\ 2016)$

The sky was variable sky to overcast. The Rainfall of 32.3 mm was recorded during past four days. Maximum temperature range observed was 21.3-28.3 °C, range of minimum temperature observed was 10.2-16.5 °C, mean relative humidity observed in morning and afternoon were 997 % and 56.0 % respectively. The average wind speed range was 2.7 to 4.8 km/hr.

Weather forecast for next five days of Chandel

(6th to 10th April, **2016**)

There may be rain during the next five days. Sky will remain fair to mainly cloudy, with maximum temp. of $30.0-31.0\,^{\circ}\text{C}$ & minimum temp. $15.0-16.0\,^{\circ}\text{C}$. Relative humidity may reach upto 90% (max RH) & 28% (min RH). The average wind speed may be 3-4 km/hr. Wind direction may be Westerly to North west Westerly during the next five days.

Weather Outlook for subsequent 2 days from 10th to 12th April, 2016 Rain/thunderstorm at many places very likely over northeastern states Weather Warning during next 5 days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops	4	-	1
Early kharif rice	Main field preparation to transplanting		 - At the time of final leveling, apply 97 kg Urea, 87Kg DAP and 45 Kg MOP per ha. - Seedlings may be uprooted at 30-45 days after sowing for transplanting. Seedlings may be transplanted immediately after uprooting to avoid transplanting shock. - Row planting of 2-3 seedlings per hill at 25x10 cm using beaded rope may be done. - To enhance the establishment of transplanted seedlings, water depth of 2-3cm should be maintained in the field after transplanting then it may be increased gradually.
Field Pea/ Lentil	Flowering	Powdery Mildew Aphid	 - Spray Bayleton (Triademofon 25%WP) @ 7.5 g/ pump (15litre capacity) or Dinocap (Karathane 46% EC) @ 7.5ml/ pump. - 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.
Horticulture Crops	•		
Tomato	Fruit borer		-Prophylactic measure to protect from Early blight of Tomato is recommended. D. M-45 (Mencozeb) @ 2gm/l may be sprayed.
Water melon			-In early stage the beds and ridges should be free from weeds. In the later stage the vine will automatically cover the space in between the plants. Hence, weeding cum top dressing is recommended
Allium odorosum			-Plantation of <i>Allium odorosum</i> (Maroi nakuppi)High density planting (1-0-12 nos. of rhizome) per hill is recommended for high yield at a spacing of 6" X 6"Coriander seed may also be sown in between the Allium Species as an intercrop.
Fruit plants (Banana, Lime, Lemon, Orange, Kiwi, etc.)	Procurement of planting material		-Jungle cutting and preparation of pit for planting/transplanting of these fruit plants should be started. Pit preparation should be done atleast 1 month ahead of planting. -Procure quality planting material
Ginger/Turmeric	Land preparation	1	 -Land preparation for plantation of Ginger/turmeric may be started. -Upland areas are more suitable for the crop. -Ginger rhizome seeds affected by rhizome rot should be discarded.
Potato	For seed		 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. remove off type plants showing mottling, mosaic, wrinkle and leaf rolling symptom. Cut the haulm at ground level in Jan/Feb, in the valley. Ensure no regrowth of the stem. Harvest the crop when the skin of the tuber has become firm.



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				- Harvest should be done on sunny day only. Heap the produce in the shad curing of skin and left undisturbed for 15-20 days.	le for
Animal Sciences				-	
Name of the animal	Growth stage	Disease	e/ infestation	Agro-meteorological advisories	
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care &	management	 To protect birds of all age groups from inclement weather, there she adequate arrangements for artificial lighting and heating. Needed to increase energy giving ingredients of feed (i.e. Maize, V Bajra etc.) and can be added 5% more. 	
		Ranikh	et Diseases	Birds must be vaccinated as per recommended schedule mentioned below probability of occurrence of the disease is high during March- April mor 1. F-1 Strain may be first administered within 7 days of age and second of may be given at 30days for all birds. 2. R ₂ B vaccine of 8-9 weeks of age group birds (layers). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers). After that at every two months interval.	nths.
Sheep/ Goat	All age groups excepts the	PPR (Pe	este Des Petits Ruminan	 If the animals have not yet been vaccinated, give vaccine now for PPR Des Petits Ruminants). 	
	young ones	Enterote		 If the Lambs and Kids in particular should be given the caccination to p Enterotoxaemia. 	
		Ectopar		 Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Le Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 1 litre of water) can also be used.)-
Pig	All age groups		management for newly		
	excepts the young ones	one Deworn	ning.	-Provide adequate bedding materialsGive Morantel citrate tablet @ 15 mg/kg of body weight.	
	young ones	Ectopar		- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Le Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 1 litre of water) can also be used.)-
		Hog Ch	olera	-Vaccination against swine fever must be carried out.	
Cattle	All age groups excepts the		.S/FMD	-If the animals have not yet been vaccinated, give vaccine, now for Black Quarter, Haemorrhagic septicaemia, Foot & mouth Disease.	
	young ones	Ectopar	asitism	 Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Le Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 1 litre of water) can also be used.)-
		Johnes	lisease & 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. 	
		Puerper	al Fever in Pregnant ani		
		Decreas	e in milk production	-The milk & urine samples must be sent for testing.	
	Breedable age group		led breeding	-control breeding programme for animals should continue in the month of February so the all participating animals become pregnant during this mo	
	Milch cow	Mastitis		-To prevent mastitis they should be milked completely.	
Fishery:	T				
Type of Farming	Stage		Management	Agro-metrological advisories	
Carp culture	Fries/ fingerlings/	brooders	Pond and water	-Maintain minimum depth of 1.5 – 2.0 m by filling fresh and clean waterApply Agri-Lime in brooder pond at small quantity at an interval of 30 days regularly.	
			Feed	Provide feed 1-2 times @ 2 % body weight per day.	
			Fish	 Male and female brooders should be stock in separate ponds for early breedi programs for Common Carp. Harvesting of fish may be done in area where water availability is low. 	ng



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



"Gramin Krishi Mausam Seva"

MANIPUR BULLETIN 5th April, 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 6th to 10th April, 2016 as below:

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The sky was variable sky to overcast. The Rainfall of 32.3 mm was recorded during past four days. Maximum temperature range observed was 21.3–28.3 $^{\circ}$ C, range of minimum temperature observed was 10.2 – 16.5 $^{\circ}$ C, mean relative humidity observed in morning and afternoon were 997 % and 56.0 % respectively. The average wind speed range was 2.7 to 4.8 km/hr.

Weather forecast for next five days of Churachandpur $(6^{th} \text{ to } 10^{th} \text{ April}, 2016)$

There may be rain during the next five days. Sky will remain fair to mainly cloudy, with maximum temp. of $30.0-32.0\,^{\circ}\text{C}$ & minimum temp. $17.0-18.0\,^{\circ}\text{C}$. Relative humidity may reach upto 97% (max RH) & 37% (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be Southerly to South south Westerly during the next five days.

Weather Outlook for subsequent 2 days from 10th to 12th April, 2016 Rain/thunderstorm at many places very likely over northeastern states Weather Warning during next 5 days

Name of the crop	Stage Pest and disease		Agro-meteorological advisories		
Field Crops	- II				
Early kharif rice	Main field preparation to transplanting		 - At the time of final leveling, apply 97 kg Urea, 87Kg DAP and 45 Kg MOP per ha. - Seedlings may be uprooted at 30-45 days after sowing for transplanting. Seedlings may be transplanted immediately after uprooting to avoid transplanting shock. - Row planting of 2-3 seedlings per hill at 25x10 cm using beaded rope may be done. - To enhance the establishment of transplanted seedlings, water depth of 2-3cm should be maintained in the field after transplanting then it may be increased gradually. 		
Field Pea/ Lentil	Flowering Powdery Mildew Aphid		 Spray Bayleton (Triademofon 25%WP) @ 7.5 g/ pump (15litre capacity) or Dinocap (Karathane 46% EC) @ 7.5ml/ pump. 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. 		
Horticulture Crops	•				
Tomato	Fruit borer		-Prophylactic measure to protect from Early blight of Tomato is recommended. D. M-45 (Mencozeb) @ 2gm/l may be sprayed.		
Water melon			-In early stage the beds and ridges should be free from weeds. In the later stage the vine will automatically cover the space in between the plants. Hence, weeding cum top dressing is recommended		
Allium odorosum			-Plantation of <i>Allium odorosum</i> (Maroi nakuppi)High density planting (1-0-12 nos. of rhizome) per hill is recommended for high yield at a spacing of 6" X 6"Coriander seed may also be sown in between the Allium Species as an intercrop.		
Fruit plants (Banana, Lime, Lemon, Orange, Kiwi, etc.)	Procurement of planting material		-Jungle cutting and preparation of pit for planting/transplanting of these fruit plants should be started. Pit preparation should be done atleast 1 month ahead of planting. -Procure quality planting material		
Ginger/Turmeric	Land preparation		 -Land preparation for plantation of Ginger/turmeric may be started. -Upland areas are more suitable for the crop. -Ginger rhizome seeds affected by rhizome rot should be discarded. 		
Potato	For seed		 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. remove off type plants showing mottling, mosaic, wrinkle and leaf rolling symptom. Cut the haulm at ground level in Jan/Feb, in the valley. Ensure no regrowth of the stem. Harvest the crop when the skin of the tuber has become firm. 		



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					arvest should be done on sunny day only. Heap the produce in the shade for ng of skin and left undisturbed for 15-20 days.		
Animal Sciences			•		·		
Name of the animal	Growth stage	Disease	Disease/ infestation		Agro-meteorological advisories		
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management		t	 To protect birds of all age groups from inclement weather, there should be adequate arrangements for artificial lighting and heating. Needed to increase energy giving ingredients of feed (i.e. Maize, Wheat, Bajra etc.) and can be added 5% more. 		
		Ranikhet Diseases			Birds must be vaccinated as per recommended schedule mentioned below as the probability of occurrence of the disease is high during March- April months. 1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. 2. R ₂ B vaccine of 8-9 weeks of age group birds (layers). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers). After that at every two months interval.		
Sheep/ Goat	All age groups excepts the	PPR (Peste Des Petits Ruminants)		s 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.		
		Ectopar			- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ectoparasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. 1 litre of water) can also be used.		
Pig	All age groups excepts the	Care & management for newly born one			-Artificial lighting and heating to the pigletsProvide adequate bedding materials.		
	young ones	Deworming			-Give Morantel citrate tablet @ 15 mg/kg of body weight.		
		Ectoparasitism			- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ectoparasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used.		
		Hog Cho	olera		-Vaccination against swine fever must be carried out.		
Cattle	All age groups excepts the	B.Q./ H.S/FMD			-If the animals have not yet been vaccinated, give vaccine, now for Black Quarter, Haemorrhagic septicaemia, Foot & mouth Disease.		
	young ones	Ectoparasitism			- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ectoparasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used.		
		Johnes disease & Sterility			Immediate proper treatment for the disease should be provided.		
		Fodder c	crops		 -Maize should be sown for use as green fodder. -Napier/Guinea grass may be transplanted. -Silage can be prepared. 		
		Puerperal Fever in Pregnant anii Decrease in milk production		regnant animals	-50-60 gram of mineral mixture every day.		
				duction	-The milk & urine samples must be sent for testing.		
	Breedable age Controlled breeding group			-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:				T			
Type of Farming	Stage	Manageme			o-metrological advisories		
Carp culture	Fries/ fingerlings/ brooders		Pond and w	-Ap	intain minimum depth of $1.5-2.0$ m by filling fresh and clean water. ply Agri-Lime in brooder pond at small quantity at an interval of 30 days larly.		
		<u> </u>	Feed		vide feed 1-2 times @ 2 % body weight per day.		
			Fish	prog	ale and female brooders should be stock in separate ponds for early breeding grams for Common Carp. Bryesting of fish may be done in area where water availability is low.		



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



"Gramin Krishi Mausam Seva"

MANIPUR BULLETIN 5th April, 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 6th to 10th April, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West $(1^{st}\ to\ 4^{th}\ April,\ 2016)$

The sky was variable sky to overcast. The Rainfall of 32.3 mm was recorded during past four days. Maximum temperature range observed was 21.3–28.3 $^{\circ}\text{C}$, range of minimum temperature observed was 10.2 – 16.5 $^{\circ}\text{C}$, mean relative humidity observed in morning and afternoon were 997 % and 56.0 % respectively. The average wind speed range was 2.7 to 4.8 km/hr.

Weather forecast for next five days of Imphal West $(6^{th} to 10^{th} April, 2016)$

There may be rain during the next five days. Sky will remain fair to variable sky, with maximum temp. of $27.0-31.0~^{\circ}\text{C}$ & minimum temp. $15.0-17.0~^{\circ}\text{C}$. Relative humidity may reach upto 98% (max RH) & 39% (min RH). The average wind speed may be 2-3 km/hr. Wind direction may be South Westerly to Westerly during the next five days.

Weather Outlook for subsequent 2 days from 10th to 12th April, 2016 Rain/thunderstorm at many places very likely over northeastern states Weather Warning during next 5 days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories	
Field Crops	•			
Early kharif rice	Main field preparation to transplanting		 - At the time of final leveling, apply 97 kg Urea, 87Kg DAP and 45 Kg MOP per ha. - Seedlings may be uprooted at 30-45 days after sowing for transplanting. Seedlings may be transplanted immediately after uprooting to avoid transplanting shock. - Row planting of 2-3 seedlings per hill at 25x10 cm using beaded rope may be done. - To enhance the establishment of transplanted seedlings, water depth of 2-3cm should be maintained in the field after transplanting then it may be increased gradually. 	
Field Pea/ Lentil	Flowering Powdery Mildew Aphid		 Spray Bayleton (Triademofon 25%WP) @ 7.5 g/ pump (15litre capacity) or Dinocap (Karathane 46% EC) @ 7.5ml/ pump. 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. 	
Horticulture Crops			1 - 17	
Tomato	Fruit borer		-Prophylactic measure to protect from Early blight of Tomato is recommended. D. M-45 (Mencozeb) @ 2gm/l may be sprayed.	
Water melon			-In early stage the beds and ridges should be free from weeds. In the later stage the vine will automatically cover the space in between the plants. Hence, weeding cum top dressing is recommended	
Allium odorosum			-Plantation of <i>Allium odorosum</i> (Maroi nakuppi)High density planting (1-0-12 nos. of rhizome) per hill is recommended for high yield at a spacing of 6" X 6"Coriander seed may also be sown in between the Allium Species as an intercrop.	
Fruit plants (Banana, Lime, Lemon, Orange, Kiwi, etc.)	Procurement of planting material		-Jungle cutting and preparation of pit for planting/transplanting of these fruit plants should be started. Pit preparation should be done at least 1 month ahead of planting. -Procure quality planting material	
Ginger/Turmeric	Land preparation		 -Land preparation for plantation of Ginger/turmeric may be started. -Upland areas are more suitable for the crop. -Ginger rhizome seeds affected by rhizome rot should be discarded. 	
Potato	For seed		- 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. - remove off type plants showing mottling, mosaic, wrinkle and leaf rolling symptom. - Cut the haulm at ground level in Jan/Feb, in the valley. Ensure no regrowth of the stem. - Harvest the crop when the skin of the tuber has become firm.	



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				Harvest should be done on sunny day only. Hea uring of skin and left undisturbed for 15-20 days		
Animal Sciences			l.			
Name of the animal	Growth stage	Disease	/ infestation	Agro-meteorological	advisories	
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management		 To protect birds of all age groups from inclement weather, there should be adequate arrangements for artificial lighting and heating. Needed to increase energy giving ingredients of feed (i.e. Maize, Wheat, Bajra etc.) and can be added 5% more. 		
		Ranikhet Diseases		Birds must be vaccinated as per recommended probability of occurrence of the disease is high 1. F-1 Strain may be first administered within may be given at 30days for all birds. 2. R ₂ B vaccine of 8-9 weeks of age group birds. 3. Killed ND virus vaccine of 16-18 weeks of a After that at every two months interval.	during March- April months. 7 days of age and second dose s (layers).	
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	Enteroto		- If the Lambs and Kids in particular should be Enterotoxaemia.		
		Ectopar		- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ectoparasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used.		
Pig	All age groups excepts the	Care & one	management for newly	-Artificial lighting and heating to the pigletsProvide adequate bedding materials.		
	young ones	Deworn	ning	-Give Morantel citrate tablet @ 15 mg/kg of body weight.		
		Ectopar		- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ectoparasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used.		
		Hog Ch	olera	-Vaccination against swine fever must be carri	ed out.	
Cattle	All age groups excepts the	B.Q./ H		-If the animals have not yet been vaccinated, give vaccine, now for Black Quarter, Haemorrhagic septicaemia, Foot & mouth Disease.		
	young ones	Ectopar	asitism	- Keep the sheds clean. Hang Bouquets of Basi Grass (Cymbopogon citrates) in the animals sh parasites. Neem oil based disinfectants can be 1 litre of water) can also be used.	il (Ocimum sactum) or Lemon eds to keep away the ecto- sprayed. Butox solution (2 C.C. in	
		Johnes of	lisease & Sterility	Immediate proper treatment for the disease sho	ould be provided.	
		Fodder	crops	-Maize should be sown for use as green fodder -Napier/Guinea grass may be transplanted.		
		Puerperal Fever in Pregnant animal Decrease in milk production		-Silage can be prepared50-60 gram of mineral mixture every day.		
				-The milk & urine samples must be sent for tes	sting.	
	Breedable age group Controlled breeding		-control breeding programme for animals should continue in the month February so the all participating animals become pregnant during this m			
	Milch cow	Mastitis		-To prevent mastitis they should be milked cor	npletely.	
Fishery:	1					
Type of Farming	Stage	Managem		Agro-metrological advisories		
Carp culture	Fries/ fingerlings/ brooders		Pond and water	Maintain minimum depth of 1.5 – 2.0 m by filling fapply Agri-Lime in brooder pond at small quantity gularly.		
			Feed	rovide feed 1-2 times @ 2 % body weight per day.		
			Fish	 Male and female brooders should be stock in separate ponds for early bree programs for Common Carp. Harvesting of fish may be done in area where water availability is low. 		



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



"Gramin Krishi Mausam Seva"

MANIPUR BULLETIN 5th April, 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 6th to 10th April, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West $(1^{st}\ to\ 4^{th}\ April,\ 2016)$

The sky was variable sky to overcast. The Rainfall of 32.3 mm was recorded during past four days. Maximum temperature range observed was 21.3–28.3 $^{\circ}\text{C}$, range of minimum temperature observed was 10.2 – 16.5 $^{\circ}\text{C}$, mean relative humidity observed in morning and afternoon were 997 % and 56.0 % respectively. The average wind speed range was 2.7 to 4.8 km/hr.

Weather forecast for next five days of Imphal East $(6^{th} \text{ to } 10^{th} \text{ April}, 2016)$

There may be rain during the next five days. Sky will remain fair to mainly cloudy, with maximum temp. of $27.0-30.0\,^{\circ}\text{C}$ & minimum temp. $15.0-17.0\,^{\circ}\text{C}$. Relative humidity may reach upto 98% (max RH) & 36% (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be South west Westerly to Westerly during the next five days.

Weather Outlook for subsequent 2 days from 10th to 12th April, 2016 Rain/thunderstorm at many places very likely over northeastern states Weather Warning during next 5 days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories	
Field Crops	-	1		
Early kharif rice	Main field preparation to transplanting		 - At the time of final leveling, apply 97 kg Urea, 87Kg DAP and 45 Kg MOP per ha. - Seedlings may be uprooted at 30-45 days after sowing for transplanting. Seedlings may be transplanted immediately after uprooting to avoid transplanting shock. - Row planting of 2-3 seedlings per hill at 25x10 cm using beaded rope may be done. - To enhance the establishment of transplanted seedlings, water depth of 2-3cm should be maintained in the field after transplanting then it may be increased gradually. 	
Field Pea/ Lentil	Flowering Powdery Mildew Aphid		 Spray Bayleton (Triademofon 25%WP) @ 7.5 g/ pump (15litre capacity) or Dinocap (Karathane 46% EC) @ 7.5ml/ pump. 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. 	
Horticulture Crops	· I		- - - - - - - - - -	
Tomato	Fruit borer		-Prophylactic measure to protect from Early blight of Tomato is recommended. D. M-45 (Mencozeb) @ 2gm/l may be sprayed.	
Water melon			-In early stage the beds and ridges should be free from weeds. In the later stage the vine will automatically cover the space in between the plants. Hence, weeding cum top dressing is recommended	
Allium odorosum			-Plantation of <i>Allium odorosum</i> (Maroi nakuppi)High density planting (1-0-12 nos. of rhizome) per hill is recommended for high yield at a spacing of 6" X 6"Coriander seed may also be sown in between the Allium Species as an intercrop.	
Fruit plants (Banana, Lime, Lemon, Orange, Kiwi, etc.)	Procurement of planting material		-Jungle cutting and preparation of pit for planting/transplanting of these fruit plants should be started. Pit preparation should be done atleast 1 month ahead of planting. -Procure quality planting material	
Ginger/Turmeric	Land preparation		 -Land preparation for plantation of Ginger/turmeric may be started. -Upland areas are more suitable for the crop. -Ginger rhizome seeds affected by rhizome rot should be discarded. 	
Potato	For seed		 - 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. - remove off type plants showing mottling, mosaic, wrinkle and leaf rolling symptom. - Cut the haulm at ground level in Jan/Feb, in the valley. Ensure no regrowth of the stem. - Harvest the crop when the skin of the tuber has become firm. 	



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					on sunny day only. Heap the produce in the shade for listurbed 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 Ranikhet Diseases		 To protect birds of all age groups from inclement weather, there should be adequate arrangements for artificial lighting and heating. Needed to increase energy giving ingredients of feed (i.e. Maize, Wheat, Bajra etc.) and can be added 5% more. 		
				probability of occurred 1. F-1 Strain may be f may be given at 30day 2. R ₂ B vaccine of 8-9	weeks of age group birds (layers). ceine of 16-18 weeks of age group birds (layers).	
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	Enteroto		Enterotoxaemia.	ds in particular should be given the caccination to prevent	
		Ectopar		 - Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Le Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto parasites. Neem oil based disinfectants can be sprayed. Butox solution (1) 1 litre of water) can also be used. 		
Pig	All age groups		management for newly l	-Artificial lighting and heating to the pigletsProvide adequate bedding materials.		
	excepts the young ones	one Deworn		-Frovide adequate bedding materials. -Give Morantel citrate tablet @ 15 mg/kg of body weight.		
	young ones	Ectopar		- Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ectoparasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used.		
		Hog Ch	olera	-Vaccination against s	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	Ectopar	asitism	Grass (Cymbopogon of parasites. Neem oil ba 1 litre of water) can al		
		Johnes of	lisease & Sterility	Immediate proper trea	tment for the disease should be provided.	
		Fodder	crops	-Maize should be sow -Napier/Guinea grass -Silage can be prepare		
		Puerper	al Fever in Pregnant ani	-50-60 gram of minera		
		Decreas	e in milk production	-The milk & urine san	nples 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 th	ney should be milked completely.	
Fishery:	T					
Type of Farming	Stage		Management	gro-metrological advisor		
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	ovide feed 1-2 times @ 2		
			Fish	 - Male and female brooders should be stock in separate ponds for early breeding programs for Common Carp. - Harvesting of fish may be done in area where water availability is low. 		



