

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



"Gramin Krishi Mausam Seva"

MANIPUR BULLETIN 13th May, 2016

Ukhrul

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 14th to 18th May, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West $(10^{th}\ to\ 12^{th}\ May,2016)$

The sky was fair to mainly cloudy. Rainfall of 0.0 mm was recorded during past four days. Maximum temperature range observed was 28.8 to 31.3 $^{\circ}\text{C}$, range of minimum temperature observed was 20.5 to 22.0 $^{\circ}$ C, mean relative humidity observed in morning and afternoon were 85.0 % and 61.0 % respectively. The average wind speed range was 4.5 to 6.6 km/hr.

Weather forecast for next five days of Ukhrul (14th to 18th May, 2016)

Likely to have light rain upto Wednesday. Sky will remain mainly cloudy, with maximum temp. 31.0 to 32.0 $^{\circ}$ C & minimum temp. 20.0 to 21.0 $^{\circ}$ C. Relative humidity may reach upto 87 % (max RH) & 29 % (min RH). The average wind speed may be 2-3 km/hr. Wind direction may be Southerly to Westerly during the next five days.

Weather Outlook for subsequent 2 days from 18th to 20th May, 2016 Rain/thunderstorm likely at many places over northeastern states Weather Warning during next 5 days *

	•		ated places over Manipur on 13 May, 2016
Name of the crop	Stage 1	Pest and disease	Agro-meteorological advisories
Field Crops	1	T	
Early kharif rice	Tillering		 - After rains, apply 30.0 kg Urea/ha at 25 to 30 days after transplanting, after complete removal of water. - Irrigate field after 48 hrs of top dressing and maintain water level at 5-8 cm. Drain out excess water accumulated due to rain.
Soybean	Sowing		Sowing may be done at spacing of 45 cm x 30 cm after rains. It is recommended to apply 44 kg of urea, 375kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. Seed rate is 40-45 kg/ha or 10-11.3 kg of seed /sangam and the recommended variety is J.S.335.
Groundnut	Sowing		Seed rate is 100-110 kg of Kernal/ha and the recommended varieties are ICGS-75 and JL-24. Sowing may be done at spacing of 30 cm x 15 cm after rains. It is recommended to apply 44 kg of urea, 375kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing.
Blackgram	Land preparation to sowing		Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling after rains. Treat the seed with Thiram or Captan @3 kg/ha.
Rabi Maize	Cob formation	Stem borer	- To control the infestation of stem borer, apply few granules of Carbofuradan 3G at maize whorl.
Horticulture Crops			
Cucurbits (Water- melon, pumpkin, sponge gourd, etc.)	Flowering & fruiting to harvesting	Powdery mildew or Downey mildew	- After the wet spell, harvest mature fruits then prophylactic spray of Mirador (Azoxystrobin 23%) @ 1ml/ lit of water or Bayleton (Triademiton 25WP) @ 0.7 g/ lit of water may be done twice at 10 &14 days intervals respectively against Powdery mildew or Downey mildew specially in damped or moist area. - Avoid water logging in the field.
Tomato/ Chilli	Fruiting to harvest		Avoid water logging in the crop field.Retain mature and healthy fruits for seeds.
		Fruit rot	Avoid water logging and after rains spray Dithane M-45 @ 2 g/ lit of water twice at 7 days interval or Mirador (Azoxystrobin 23%) @ 1ml/ lit of water.
Ginger/Turmeric	Sowing		-The seed rhizome should be screened from pest and diseases -Spread in the shed for 1-2 days -Treat rhizome with Captan 50 W P or Hexaconazeb @ 3gm/kg seed & keep for 1/2 hour and sowing may be doneSpacing for Ginger -20cm X 30cm; turmeric- 20 cm X 45-50cm - Desirable weight of rhizome-15-25 gm with 2-3budsMulching with dried twigs/paddy straw is recommendedComplete sowing as early as possible preferably in the upland areasTrichoderma harzianum may also be used for seed treatment.
Bhindi/cowpea	Sowing		-Proper drainage should be given to drain excess water -Sowing should be done in permissible field condition.
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 plantingProcure quality planting material



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Animal Science	es .		
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups All age groups	Care & management	 One dose of deworming is suggested using Piperazine liquid @ 40ml for 100birds/layers & 20ml for 100 growers & chicks once only. Add multivitamin syrup @ 10-20 ml. To protect from dehydration, provision for wholesome and clear water (cool) be maintained properly atleast four times during the day. Sheep should be sheared during this month.
Sheep/ Goat	excepts the young ones		- Pepirazine compound- 100mg/kg orally for 3 days.
	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.
Pig	All age groups excepts the	Deworming	-Give Morantel citrate tablet @ 15 mg/kg of body weight.
	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.
		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.
		Endoparasites	- Deworm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Fodder crops	-Maize should be sown for use as green fodder/cowpea should be integratedNapier/Guinea grass may be transplantedSilage can be prepared.
		Puerperal Fever in Pregnant animals	-50-60 gram of mineral mixture every day.
		Decrease in milk production	-The milk & urine samples must be sent for testing.
	Breedable age group	Controlled breeding	-control breeding programme for animals should continue in the month of February so the all participating animals become pregnant during this month.
	Milch cow	Mastitis	-To prevent mastitis they should be milked completely.
Fishery: Type of	Stage	Management	Agro-metrological advisories
Farming		Management	
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. Provide feed 1-2 times @ 2 % body weight per day.
	bloodels	Feed 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 13th May, 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 14th to 18th May, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West $(10^{th}\ to\ 12^{th}\ May,2016)$

The sky was fair to mainly cloudy. Rainfall of 0.0 mm was recorded during past four days. Maximum temperature range observed was 28.8 to 31.3 $^{\circ}\text{C}$, range of minimum temperature observed was 20.5 to 22.0 $^{\circ}$ C, mean relative humidity observed in morning and afternoon were 85.0 % and 61.0 % respectively. The average wind speed range was 4.5 to 6.6 km/hr.

Weather forecast for next five days of Bishnupur $(14^{\rm th}\ to\ 18^{\rm th}\ May,\ 2016)$

Likely to have light rain upto Wednesday. Sky will remain variable to mainly cloudy, with maximum temp. 30.0 to 31.0 $^{\circ}$ C & minimum temp. 20.0 to 21.0 $^{\circ}$ C. Relative humidity may reach upto 92 % (max RH) & 35 % (min RH). The average wind speed may be 3-4 km/hr. Wind direction may be South Easterly to Westerly during the next five days.

Weather Outlook for subsequent 2 days from 18th to 20th May, 2016 Rain/thunderstorm likely at many places over northeastern states Weather Warning during next 5 days *

	•		ated places over Manipur on 13 May, 2016
Name of the crop	Stage 1	Pest and disease	Agro-meteorological advisories
Field Crops	1		
Early kharif rice	Tillering		 - After rains, apply 30.0 kg Urea/ha at 25 to 30 days after transplanting, after complete removal of water. - Irrigate field after 48 hrs of top dressing and maintain water level at 5-8 cm. Drain out excess water accumulated due to rain.
Soybean	Sowing		Sowing may be done at spacing of 45 cm x 30 cm after rains. It is recommended to apply 44 kg of urea, 375kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. Seed rate is 40-45 kg/ha or 10-11.3 kg of seed /sangam and the recommended variety is J.S.335.
Groundnut	Sowing		Seed rate is 100-110 kg of Kernal/ha and the recommended varieties are ICGS-75 and JL-24. Sowing may be done at spacing of 30 cm x 15 cm after rains. It is recommended to apply 44 kg of urea, 375kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing.
Blackgram	Land preparation to sowing		Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling after rains. Treat the seed with Thiram or Captan @3 kg/ha.
Rabi Maize	Cob formation	Stem borer	- To control the infestation of stem borer, apply few granules of Carbofuradan 3G at maize whorl.
Horticulture Crops			
Cucurbits (Water- melon, pumpkin, sponge gourd, etc.)	Flowering & fruiting to harvesting	Powdery mildew or Downey mildew	- After the wet spell, harvest mature fruits then prophylactic spray of Mirador (Azoxystrobin 23%) @ 1ml/ lit of water or Bayleton (Triademiton 25WP) @ 0.7 g/ lit of water may be done twice at 10 &14 days intervals respectively against Powdery mildew or Downey mildew specially in damped or moist area. - Avoid water logging in the field.
Tomato/ Chilli	Fruiting to harvest		Avoid water logging in the crop field.Retain mature and healthy fruits for seeds.
		Fruit rot	Avoid water logging and after rains spray Dithane M-45 @ 2 g/ lit of water twice at 7 days interval or Mirador (Azoxystrobin 23%) @ 1ml/ lit of water.
Ginger/Turmeric	Sowing		-The seed rhizome should be screened from pest and diseases -Spread in the shed for 1-2 days -Treat rhizome with Captan 50 W P or Hexaconazeb @ 3gm/kg seed & keep for 1/2 hour and sowing may be doneSpacing for Ginger -20cm X 30cm; turmeric- 20 cm X 45-50cm - Desirable weight of rhizome-15-25 gm with 2-3budsMulching with dried twigs/paddy straw is recommendedComplete sowing as early as possible preferably in the upland areasTrichoderma harzianum may also be used for seed treatment.
Bhindi/cowpea	Sowing		-Proper drainage should be given to drain excess water -Sowing should be done in permissible field condition.
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 plantingProcure quality planting material



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Animal Science	es .		
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups All age groups	Care & management	One dose of deworming is suggested using Piperazine liquid @ 40ml for 100birds/layers & 20ml for 100 growers & chicks once only. Add multivitamin syrup @ 10-20 ml. To protect from dehydration, provision for wholesome and clear water (cool) be maintained properly atleast four times during the day. Sheep should be sheared during this month.
Sheep/ Goat	excepts the young ones		- Pepirazine compound- 100mg/kg orally for 3 days.
	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.
Pig	All age groups excepts the	Deworming	-Give Morantel citrate tablet @ 15 mg/kg of body weight.
	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.
		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.
		Endoparasites	- Deworm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Fodder crops	-Maize should be sown for use as green fodder/cowpea should be integratedNapier/Guinea grass may be transplantedSilage can be prepared.
		Puerperal Fever in Pregnant animals	-50-60 gram of mineral mixture every day.
		Decrease in milk production	-The milk & urine samples must be sent for testing.
	Breedable age group	Controlled breeding	-control breeding programme for animals should continue in the month of February so the all participating animals become pregnant during this month.
	Milch cow	Mastitis	-To prevent mastitis they should be milked completely.
Fishery:	I 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.
	brooders	Feed Fish	Provide feed 1-2 times @ 2 % body weight per day. - 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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Significant past weather for the preceding bi-weekly of **Imphal - West** (10th to 12th May, 2016)

The sky was fair to mainly cloudy. Rainfall of 0.0 mm was recorded during past four days. Maximum temperature range observed was 28.8 to 31.3 °C, range of minimum temperature observed was 20.5 to 22.0 °C, mean relative humidity observed in morning and afternoon were 85.0 % and 61.0 % respectively. The average wind speed range was 4.5 to 6.6 km/hr.

Weather forecast for next five days of Chandel (14th to 18th May, 2016)

Likely to have light rain upto Wednesday. Sky will remain mainly cloudy, with maximum temp. 30.0 to 31.0 °C & minimum temp. 19.0 to 20.0 °C. Relative humidity may reach upto 87 % (max RH) & 33 % (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be Southerly to Westerly during the next five days.

	Heavy	y rain likely at isola	ated places over Manipur on 13 May, 2016
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			•
Early kharif rice	Tillering		 - After rains, apply 30.0 kg Urea/ha at 25 to 30 days after transplanting, after complete removal of water. - Irrigate field after 48 hrs of top dressing and maintain water level at 5-8 cm. Drain out excess water accumulated due to rain.
Soybean	Sowing		Sowing may be done at spacing of 45 cm x 30 cm after rains. It is recommended to apply 44 kg of urea, 375kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. Seed rate is 40-45 kg/ha or 10-11.3 kg of seed /sangam and the recommended variety is J.S.335.
Groundnut	Sowing		Seed rate is 100-110 kg of Kernal/ha and the recommended varieties are ICGS-75 and JL-24. Sowing may be done at spacing of 30 cm x 15 cm after rains. It is recommended to apply 44 kg of urea, 375kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing.
Blackgram	Land preparation to sowing		Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling after rains. Treat the seed with Thiram or Captan @3 kg/ha.
Rabi Maize	Cob formation	Stem borer	- To control the infestation of stem borer, apply few granules of Carbofuradan 3G at maize whorl.
Horticulture Crops			
Cucurbits (Water- melon, pumpkin, sponge gourd, etc.)	Flowering & fruiting to harvesting	Powdery mildew or Downey mildew	- After the wet spell, harvest mature fruits then prophylactic spray of Mirador (Azoxystrobin 23%) @ 1ml/ lit of water or Bayleton (Triademiton 25WP) @ 0.7 g/ lit of water may be done twice at 10 &14 days intervals respectively against Powdery mildew or Downey mildew specially in damped or moist area. - Avoid water logging in the field.
Tomato/ Chilli	Fruiting to harvest		Avoid water logging in the crop field.Retain mature and healthy fruits for seeds.
		Fruit rot	Avoid water logging and after rains spray Dithane M-45 @ 2 g/ lit of water twice at 7 days interval or Mirador (Azoxystrobin 23%) @ 1ml/ lit of water.
Ginger/Turmeric	Sowing		-The seed rhizome should be screened from pest and diseases -Spread in the shed for 1-2 days -Treat rhizome with Captan 50 W P or Hexaconazeb @ 3gm/kg seed & keep for ½ hour and sowing may be doneSpacing for Ginger -20cm X 30cm; turmeric- 20 cm X 45-50cm - Desirable weight of rhizome-15-25 gm with 2-3budsMulching with dried twigs/paddy straw is recommendedComplete sowing as early as possible preferably in the upland areasTrichoderma harzianum may also be used for seed treatment.
Bhindi/cowpea	Sowing		-Proper drainage should be given to drain excess water -Sowing should be done in permissible field condition.
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



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Animal Science	es .		
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups All age groups	Care & management	One dose of deworming is suggested using Piperazine liquid @ 40ml for 100birds/layers & 20ml for 100 growers & chicks once only. Add multivitamin syrup @ 10-20 ml. To protect from dehydration, provision for wholesome and clear water (cool) be maintained properly atleast four times during the day. Sheep should be sheared during this month.
Sheep/ Goat	excepts the young ones		- Pepirazine compound- 100mg/kg orally for 3 days.
	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.
Pig	All age groups excepts the	Deworming	-Give Morantel citrate tablet @ 15 mg/kg of body weight.
	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.
		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.
		Endoparasites	- Deworm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Fodder crops	-Maize should be sown for use as green fodder/cowpea should be integratedNapier/Guinea grass may be transplantedSilage can be prepared.
		Puerperal Fever in Pregnant animals	-50-60 gram of mineral mixture every day.
		Decrease in milk production	-The milk & urine samples must be sent for testing.
	Breedable age group	Controlled breeding	-control breeding programme for animals should continue in the month of February so the all participating animals become pregnant during this month.
	Milch cow	Mastitis	-To prevent mastitis they should be milked completely.
Fishery:	I 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.
	brooders	Feed Fish	Provide feed 1-2 times @ 2 % body weight per day. - 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 Churachandpur $(14^{th}\ to\ 18^{th}\ May,\ 2016)$

Likely to have light rain upto Wednesday. Sky will remain mainly cloudy, with maximum temp. 31.0 to 33.0 $^{\circ}$ C & minimum temp. 19.0 to 20.0 $^{\circ}$ C. Relative humidity may reach upto 94 % (max RH) & 35 % (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be South South-Easterly to South South-Westerly during the next five days.

Weather Outlook for subsequent 2 days from 18th to 20th May, 2016 Rain/thunderstorm likely at many places 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	Tillering		 - After rains, apply 30.0 kg Urea/ha at 25 to 30 days after transplanting, after complete removal of water. - Irrigate field after 48 hrs of top dressing and maintain water level at 5-8 cm. Drain out excess water accumulated due to rain.
Soybean	Sowing		Sowing may be done at spacing of 45 cm x 30 cm after rains. It is recommended to apply 44 kg of urea, 375kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. Seed rate is 40-45 kg/ha or 10-11.3 kg of seed /sangam and the recommended variety is J.S.335.
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Rabi Maize	Cob formation	Stem borer	- To control the infestation of stem borer, apply few granules of Carbofuradan 3G at maize whorl.
Horticulture Crops			
Cucurbits (Water- melon, pumpkin, sponge gourd, etc.)	Flowering & fruiting to harvesting	Powdery mildew or Downey mildew	- After the wet spell, harvest mature fruits then prophylactic spray of Mirado (Azoxystrobin 23%) @ 1ml/ lit of water or Bayleton (Triademiton 25WP) @ 0.7 g/ lit of water may be done twice at 10 &14 days intervals respectively agains Powdery mildew or Downey mildew specially in damped or moist area. - Avoid water logging in the field.
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Ginger/Turmeric	Sowing		-The seed rhizome should be screened from pest and diseases -Spread in the shed for 1-2 days -Treat rhizome with Captan 50 W P or Hexaconazeb @ 3gm/kg seed & keep for ½ hour and sowing may be doneSpacing for Ginger -20cm X 30cm; turmeric- 20 cm X 45-50cm - Desirable weight of rhizome-15-25 gm with 2-3budsMulching with dried twigs/paddy straw is recommendedComplete sowing as early as possible preferably in the upland areasTrichoderma harzianum may also be used for seed treatment.
Bhindi/cowpea	Sowing		-Proper drainage should be given to drain excess water -Sowing should be done in permissible field condition.
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



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Animal Science	es .		
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups All age groups	Care & management	 One dose of deworming is suggested using Piperazine liquid @ 40ml for 100birds/layers & 20ml for 100 growers & chicks once only. Add multivitamin syrup @ 10-20 ml. To protect from dehydration, provision for wholesome and clear water (cool) be maintained properly atleast four times during the day. Sheep should be sheared during this month.
Sheep/ Goat	excepts the young ones		- Pepirazine compound- 100mg/kg orally for 3 days.
	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.
Pig	All age groups excepts the	Deworming	-Give Morantel citrate tablet @ 15 mg/kg of body weight.
	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.
		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.
		Endoparasites	- Deworm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Fodder crops	-Maize should be sown for use as green fodder/cowpea should be integratedNapier/Guinea grass may be transplantedSilage can be prepared.
		Puerperal Fever in Pregnant animals	-50-60 gram of mineral mixture every day.
		Decrease in milk production	-The milk & urine samples must be sent for testing.
	Breedable age group	Controlled breeding	-control breeding programme for animals should continue in the month of February so the all participating animals become pregnant during this month.
	Milch cow	Mastitis	-To prevent mastitis they should be milked completely.
Fishery: Type of	Stage	Management	Agro-metrological advisories
Farming		Management	
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. Provide feed 1-2 times @ 2 % body weight per day.
	bloodels	Feed Fish	 - Male and female brooders should be stock in separate ponds for early breeding programs for Common Carp. - Harvesting of fish may be done in area where water availability is low.



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



"Gramin Krishi Mausam Seva"

MANIPUR BULLETIN 13th May, 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 14th to 18th May, 2016 as

Significant past weather for the preceding bi-weekly of **Imphal - West** (10th to 12th May, 2016)

The sky was fair to mainly cloudy. Rainfall of 0.0 mm was recorded during past four days. Maximum temperature range observed was 28.8 to 31.3 °C, range of minimum temperature observed was 20.5 to 22.0 °C, mean relative humidity observed in morning and afternoon were 85.0 % and 61.0 % respectively. The average wind speed range was 4.5 to 6.6 km/hr.

Weather forecast for next five days of Imphal East (14th to 18th May, 2016)

Likely to have light rain upto Wednesday. Sky will remain mainly cloudy, with maximum temp. 29.0 to 30.0 $^{\circ}$ C & minimum temp. 18.0 to 19.0 $^{\circ}$ C. Relative humidity may reach upto 94 % (max RH) & 35 % (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be North East-Easterly to North North-Westerly during the next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
-	Stage	i est and disease	Agro-meteorological advisories
Early kharif rice	Tillering		 - After rains, apply 30.0 kg Urea/ha at 25 to 30 days after transplanting, after complete removal of water. - Irrigate field after 48 hrs of top dressing and maintain water level at 5-8 cm. Drain out excess water accumulated due to rain.
Soybean	Sowing		Sowing may be done at spacing of 45 cm x 30 cm after rains. It is recommended to apply 44 kg of urea, 375kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. Seed rate is 40-45 kg/ha or 10-11.3 kg of seed /sangam and the recommended variety is J.S.335.
Groundnut	Sowing		Seed rate is 100-110 kg of Kernal/ha and the recommended varieties are ICGS-75 and JL-24. Sowing may be done at spacing of 30 cm x 15 cm after rains. It is recommended to apply 44 kg of urea, 375kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing.
Blackgram	Land preparation to sowing		Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling after rains. Treat the seed with Thiram or Captan @3 kg/ha.
Rabi Maize	Cob formation	Stem borer	- To control the infestation of stem borer, apply few granules of Carbofuradan 3G at maize whorl.
Horticulture Crops			
Cucurbits (Water- melon, pumpkin, sponge gourd, etc.)	Flowering & fruiting to harvesting	Powdery mildew or Downey mildew	- After the wet spell, harvest mature fruits then prophylactic spray of Mirador (Azoxystrobin 23%) @ 1ml/ lit of water or Bayleton (Triademiton 25WP) @ 0.7 g/ lit of water may be done twice at 10 &14 days intervals respectively agains Powdery mildew or Downey mildew specially in damped or moist area. - Avoid water logging in the field.
Tomato/ Chilli	Fruiting to harvest		Avoid water logging in the crop field.Retain mature and healthy fruits for seeds.
		Fruit rot	Avoid water logging and after rains spray Dithane M-45 @ 2 g/ lit of water twice at 7 days interval or Mirador (Azoxystrobin 23%) @ 1ml/ lit of water.
Ginger/Turmeric	Sowing		-The seed rhizome should be screened from pest and diseases -Spread in the shed for 1-2 days -Treat rhizome with Captan 50 W P or Hexaconazeb @ 3gm/kg seed & keep for ½ hour and sowing may be doneSpacing for Ginger -20cm X 30cm; turmeric- 20 cm X 45-50cm - Desirable weight of rhizome-15-25 gm with 2-3budsMulching with dried twigs/paddy straw is recommendedComplete sowing as early as possible preferably in the upland areasTrichoderma harzianum may also be used for seed treatment.
Bhindi/cowpea	Sowing		-Proper drainage should be given to drain excess water -Sowing should be done in permissible field condition.
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 plantingProcure quality planting material



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



Animal Science	es .		
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups All age groups	Care & management	 One dose of deworming is suggested using Piperazine liquid @ 40ml for 100birds/layers & 20ml for 100 growers & chicks once only. Add multivitamin syrup @ 10-20 ml. To protect from dehydration, provision for wholesome and clear water (cool) be maintained properly atleast four times during the day. Sheep should be sheared during this month.
Sheep/ Goat	excepts the young ones		- Pepirazine compound- 100mg/kg orally for 3 days.
	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.
Pig	All age groups excepts the	Deworming	-Give Morantel citrate tablet @ 15 mg/kg of body weight.
	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.
		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.
		Endoparasites	- Deworm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Fodder crops	-Maize should be sown for use as green fodder/cowpea should be integratedNapier/Guinea grass may be transplantedSilage can be prepared.
		Puerperal Fever in Pregnant animals	-50-60 gram of mineral mixture every day.
		Decrease in milk production	-The milk & urine samples must be sent for testing.
	Breedable age group	Controlled breeding	-control breeding programme for animals should continue in the month of February so the all participating animals become pregnant during this month.
	Milch cow	Mastitis	-To prevent mastitis they should be milked completely.
Fishery: Type of	Stage	Management	Agro-metrological advisories
Farming		Management	
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. Provide feed 1-2 times @ 2 % body weight per day.
	bloodels	Feed Fish	 - Male and female brooders should be stock in separate ponds for early breeding programs for Common Carp. - Harvesting of fish may be done in area where water availability is low.



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



"Gramin Krishi Mausam Seva"

MANIPUR BULLETIN 13th May, 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 14th to 18th May, 2016 as

Significant past weather for the preceding bi-weekly of **Imphal - West** (10th to 12th May, 2016)

The sky was fair to mainly cloudy. Rainfall of 0.0 mm was recorded during past four days. Maximum temperature range observed was 28.8 to 31.3 °C, range of minimum temperature observed was 20.5 to 22.0 °C, mean relative humidity observed in morning and afternoon were 85.0 % and 61.0 % respectively. The average wind speed range was 4.5 to 6.6 km/hr.

Weather forecast for next five days of Imphal West (14th to 18th May, 2016)

Likely to have light rain upto Wednesday. Sky will remain mainly cloudy, with maximum temp. 29.0 to 30.0 °C & minimum temp. 16.0 to 18.0 °C. Relative humidity may reach upto 94 % (max RH) & 31 % (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be Easterly to Westerly during the next five days.

	-	y rain likely at isola	ated places over Manipur on 13 May, 2016
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Early kharif rice	Tillering		 After rains, apply 30.0 kg Urea/ha at 25 to 30 days after transplanting, after complete removal of water. Irrigate field after 48 hrs of top dressing and maintain water level at 5-8 cm. Drain out excess water accumulated due to rain.
Soybean	Sowing		Sowing may be done at spacing of 45 cm x 30 cm after rains. It is recommended to apply 44 kg of urea, 375kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. Seed rate is 40-45 kg/ha or 10-11.3 kg of seed /sangam and the recommended variety is J.S.335.
Groundnut	Sowing		Seed rate is 100-110 kg of Kernal/ha and the recommended varieties are ICGS-75 and JL-24. Sowing may be done at spacing of 30 cm x 15 cm after rains. It is recommended to apply 44 kg of urea, 375kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing.
Blackgram	Land preparation to sowing		Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling after rains. Treat the seed with Thiram or Captan @3 kg/ha.
Rabi Maize	Cob formation	Stem borer	- To control the infestation of stem borer, apply few granules of Carbofuradan 3G at maize whorl.
Horticulture Crops			
Cucurbits (Water- melon, pumpkin, sponge gourd, etc.)	Flowering & fruiting to harvesting	Powdery mildew or Downey mildew	- After the wet spell, harvest mature fruits then prophylactic spray of Mirador (Azoxystrobin 23%) @ 1ml/ lit of water or Bayleton (Triademiton 25WP) @ 0.7 g/ lit of water may be done twice at 10 &14 days intervals respectively against Powdery mildew or Downey mildew specially in damped or moist area. - Avoid water logging in the field.
Tomato/ Chilli	Fruiting to harvest		Avoid water logging in the crop field.Retain mature and healthy fruits for seeds.
		Fruit rot	Avoid water logging and after rains spray Dithane M-45 @ 2 g/ lit of water twice at 7 days interval or Mirador (Azoxystrobin 23%) @ 1ml/ lit of water.
Ginger/Turmeric	Sowing		-The seed rhizome should be screened from pest and diseases -Spread in the shed for 1-2 days -Treat rhizome with Captan 50 W P or Hexaconazeb @ 3gm/kg seed & keep for ½ hour and sowing may be doneSpacing for Ginger -20cm X 30cm; turmeric- 20 cm X 45-50cm - Desirable weight of rhizome-15-25 gm with 2-3budsMulching with dried twigs/paddy straw is recommendedComplete sowing as early as possible preferably in the upland areasTrichoderma harzianum may also be used for seed treatment.
Bhindi/cowpea	Sowing		-Proper drainage should be given to drain excess water -Sowing should be done in permissible field condition.
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



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



Animal Science	es .		
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups All age groups	Care & management	 One dose of deworming is suggested using Piperazine liquid @ 40ml for 100birds/layers & 20ml for 100 growers & chicks once only. Add multivitamin syrup @ 10-20 ml. To protect from dehydration, provision for wholesome and clear water (cool) be maintained properly atleast four times during the day. Sheep should be sheared during this month.
Sheep/ Goat	excepts the young ones		- Pepirazine compound- 100mg/kg orally for 3 days.
	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.
Pig	All age groups excepts the	Deworming	-Give Morantel citrate tablet @ 15 mg/kg of body weight.
	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.
		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.
		Endoparasites	- Deworm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Fodder crops	-Maize should be sown for use as green fodder/cowpea should be integratedNapier/Guinea grass may be transplantedSilage can be prepared.
		Puerperal Fever in Pregnant animals	-50-60 gram of mineral mixture every day.
		Decrease in milk production	-The milk & urine samples must be sent for testing.
	Breedable age group	Controlled breeding	-control breeding programme for animals should continue in the month of February so the all participating animals become pregnant during this month.
	Milch cow	Mastitis	-To prevent mastitis they should be milked completely.
Fishery: Type of	Stage	Management	Agro-metrological advisories
Farming		Management	
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. Provide feed 1-2 times @ 2 % body weight per day.
	bloodels	Feed Fish	 - Male and female brooders should be stock in separate ponds for early breeding programs for Common Carp. - Harvesting of fish may be done in area where water availability is low.



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



"Gramin Krishi Mausam Seva"

MANIPUR BULLETIN 13th May, 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 14th to 18th May, 2016 as

Significant past weather for the preceding bi-weekly of **Imphal - West** (10th to 12th May, 2016)

The sky was fair to mainly cloudy. Rainfall of 0.0 mm was recorded during past four days. Maximum temperature range observed was 28.8 to 31.3 °C, range of minimum temperature observed was 20.5 to 22.0 °C, mean relative humidity observed in morning and afternoon were 85.0 % and 61.0 % respectively. The average wind speed range was 4.5 to 6.6 km/hr.

Weather forecast for next five days of Senapati (14th to 18th May, 2016)

Likely to have light rain upto Wednesday. Sky will remain variable to mainly cloudy, with maximum temp. 29.0 to 30.0 $^{\circ}$ C & minimum temp. 17.0 to 18.0 ° C. Relative humidity may reach upto 92 % (max RH) & 28 % (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be Easterly to North-west Westerly during the next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<u> </u>	Stage	i est and disease	Agi o-nicteoi ologicai auvisories
Field Crops	m:11 :	1	A francisco con la 20 0 la Harri de 25 de 20 desenfrantes estados esta
Early kharif rice	Tillering		- After rains, apply 30.0 kg Urea/ha at 25 to 30 days after transplanting, after complete removal of water.
			- Irrigate field after 48 hrs of top dressing and maintain water level at 5-8 cm.
G 1			Drain out excess water accumulated due to rain. Sowing may be done at spacing of 45 cm x 30 cm after rains. It is recommended
Soybean	G		to apply 44 kg of urea, 375kg of DAP and 67 kg of MOP per ha as a basal
	Sowing		application during final ploughing or incorporated at the time of sowing. Seed
			rate is 40-45 kg/ha or 10-11.3 kg of seed /sangam and the recommended variety
			is J.S.335.
Groundnut			Seed rate is 100-110 kg of Kernal/ha and the recommended varieties are ICGS-
Givanana	Sowing		75 and JL-24. Sowing may be done at spacing of 30 cm x 15 cm after rains. It is
	Sowing		recommended to apply 44 kg of urea, 375kg of DAP and 67 kg of MOP per ha as
			a basal application during final ploughing or incorporated at the time of sowing.
Blackgram	Land preparation		Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling after
	to sowing		rains. Treat the seed with Thiram or Captan @3 kg/ha.
Rabi Maize	Cob formation	Stem borer	- To control the infestation of stem borer, apply few granules of Carbofuradan
			3G at maize whorl.
Horticulture Crops			
Cucurbits (Water-	Flowering &	Powdery	- After the wet spell, harvest mature fruits then prophylactic spray of Mirado
melon, pumpkin,	fruiting to	mildew or	(Azoxystrobin 23%) @ 1ml/ lit of water or Bayleton (Triademiton 25WP) @ 0.
sponge gourd, etc.)	harvesting	Downey	g/ lit of water may be done twice at 10 &14 days intervals respectively against
		mildew	Powdery mildew or Downey mildew specially in damped or moist area.
The state of the s	T '4' 4 1 4		- Avoid water logging in the field.
Tomato/ Chilli	Fruiting to harvest		Avoid water logging in the crop field.Retain mature and healthy fruits for seeds.
		Fruit rot	Avoid water logging and after rains spray Dithane M-45 @ 2 g/ lit of water twice
		Fluitiot	at 7 days interval or Mirador (Azoxystrobin 23%) @ 1ml/ lit of water.
Ginger/Turmeric	Sowing		-The seed rhizome should be screened from pest and diseases
Ginger/Turmeric	Sowing		-Spread in the shed for 1-2 days
			-Treat rhizome with Captan 50 W P or Hexaconazeb @ 3gm/kg seed & keep for
			½ hour and sowing may be done.
			-Spacing for Ginger -20cm X 30cm; turmeric- 20 cm X 45-50cm
			- Desirable weight of rhizome-15-25 gm with 2-3buds.
			-Mulching with dried twigs/paddy straw is recommended.
			-Complete sowing as early as possible preferably in the upland areas.
			-Trichoderma harzianum may also be used for seed treatment.
Bhindi/cowpea	Sowing		-Proper drainage should be given to drain excess water
			-Sowing should be done in permissible field condition.
Fruit plants (Banana,	Procurement of		-Jungle cutting and preparation of pit for planting/transplanting of these fruit
Lime, Lemon,	planting material		plants should be started. Pit preparation should be done atleast 1 month ahead of
Orange, Kiwi, etc.)			planting.
			-Procure quality planting material



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



Animal Science	es .		
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups All age groups	Care & management	 One dose of deworming is suggested using Piperazine liquid @ 40ml for 100birds/layers & 20ml for 100 growers & chicks once only. Add multivitamin syrup @ 10-20 ml. To protect from dehydration, provision for wholesome and clear water (cool) be maintained properly atleast four times during the day. Sheep should be sheared during this month.
Sheep/ Goat	excepts the young ones		- Pepirazine compound- 100mg/kg orally for 3 days.
		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	Deworming	-Give Morantel citrate tablet @ 15 mg/kg of body weight.
	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.
		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.
		Endoparasites	- Deworm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Fodder crops	-Maize should be sown for use as green fodder/cowpea should be integratedNapier/Guinea grass may be transplantedSilage can be prepared.
		Puerperal Fever in Pregnant animals	-50-60 gram of mineral mixture every day.
		Decrease in milk production	-The milk & urine samples must be sent for testing.
	Breedable age group	Controlled breeding	-control breeding programme for animals should continue in the month of February so the all participating animals become pregnant during this month.
	Milch cow	Mastitis	-To prevent mastitis they should be milked completely.
Fishery:	La	136	
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Fries/ fingerlings/ brooders	Pond and water Feed	-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. Provide feed 1-2 times @ 2 % body weight per day.
		Fish	 Male and female brooders should be stock in separate ponds for early breeding programs for Common Carp. Harvesting of fish may be done in area where water availability is low.



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



"Gramin Krishi Mausam Seva"

MANIPUR BULLETIN 13th May, 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 14th to 18th May, 2016 as

Significant past weather for the preceding bi-weekly of **Imphal - West** (10th to 12th May, 2016)

The sky was fair to mainly cloudy. Rainfall of 0.0 mm was recorded during past four days. Maximum temperature range observed was 28.8 to 31.3 °C, range of minimum temperature observed was 20.5 to 22.0 °C, mean relative humidity observed in morning and afternoon were 85.0 % and 61.0 % respectively. The average wind speed range was 4.5 to 6.6 km/hr.

Weather forecast for next five days of Tamenglong (14th to 18th May, 2016)

Likely to have light rain upto Wednesday. Sky will remain mainly cloudy, with maximum temp. 30.0 to 31.0 $^{\circ}$ C & minimum temp. 18.0 to 19.0 $^{\circ}$ C. Relative humidity may reach upto 95 % (max RH) & 32 % (min RH). The average wind speed may be 2-3 km/hr. Wind direction may be Easterly to South-Westerly during the next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<u> </u>	Buge	t est and disease	Agro-meteorological auvisories
Early kharif rice	Tillering		 - After rains, apply 30.0 kg Urea/ha at 25 to 30 days after transplanting, after complete removal of water. - Irrigate field after 48 hrs of top dressing and maintain water level at 5-8 cm. Drain out excess water accumulated due to rain.
Soybean	Sowing		Sowing may be done at spacing of 45 cm x 30 cm after rains. It is recommended to apply 44 kg of urea, 375kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. Seed rate is 40-45 kg/ha or 10-11.3 kg of seed /sangam and the recommended variety is J.S.335.
Groundnut	Sowing		Seed rate is 100-110 kg of Kernal/ha and the recommended varieties are ICGS-75 and JL-24. Sowing may be done at spacing of 30 cm x 15 cm after rains. It is recommended to apply 44 kg of urea, 375kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing.
Blackgram	Land preparation to sowing		Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling after rains. Treat the seed with Thiram or Captan @3 kg/ha.
Rabi Maize	Cob formation	Stem borer	- To control the infestation of stem borer, apply few granules of Carbofuradan 3G at maize whorl.
Horticulture Crops			
Cucurbits (Water- melon, pumpkin, sponge gourd, etc.)	Flowering & fruiting to harvesting	Powdery mildew or Downey mildew	- After the wet spell, harvest mature fruits then prophylactic spray of Mirado (Azoxystrobin 23%) @ 1ml/ lit of water or Bayleton (Triademiton 25WP) @ 0. g/ lit of water may be done twice at 10 &14 days intervals respectively against Powdery mildew or Downey mildew specially in damped or moist area Avoid water logging in the field.
Tomato/ Chilli	Fruiting to harvest		Avoid water logging in the crop field.Retain mature and healthy fruits for seeds.
		Fruit rot	Avoid water logging and after rains spray Dithane M-45 @ 2 g/ lit of water twic at 7 days interval or Mirador (Azoxystrobin 23%) @ 1ml/ lit of water.
Ginger/Turmeric	Sowing		-The seed rhizome should be screened from pest and diseases -Spread in the shed for 1-2 days -Treat rhizome with Captan 50 W P or Hexaconazeb @ 3gm/kg seed & keep for ½ hour and sowing may be doneSpacing for Ginger -20cm X 30cm; turmeric- 20 cm X 45-50cm - Desirable weight of rhizome-15-25 gm with 2-3budsMulching with dried twigs/paddy straw is recommendedComplete sowing as early as possible preferably in the upland areasTrichoderma harzianum may also be used for seed treatment.
Bhindi/cowpea	Sowing		-Proper drainage should be given to drain excess water -Sowing should be done in permissible field condition.
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 plantingProcure quality planting material



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



Animal Science	es .		
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups All age groups	Care & management	 One dose of deworming is suggested using Piperazine liquid @ 40ml for 100birds/layers & 20ml for 100 growers & chicks once only. Add multivitamin syrup @ 10-20 ml. To protect from dehydration, provision for wholesome and clear water (cool) be maintained properly atleast four times during the day. Sheep should be sheared during this month.
Sheep/ Goat	excepts the young ones		- Pepirazine compound- 100mg/kg orally for 3 days.
		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	Deworming	-Give Morantel citrate tablet @ 15 mg/kg of body weight.
	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.
		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.
		Endoparasites	- Deworm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Fodder crops	-Maize should be sown for use as green fodder/cowpea should be integratedNapier/Guinea grass may be transplantedSilage can be prepared.
		Puerperal Fever in Pregnant animals	-50-60 gram of mineral mixture every day.
		Decrease in milk production	-The milk & urine samples must be sent for testing.
	Breedable age group	Controlled breeding	-control breeding programme for animals should continue in the month of February so the all participating animals become pregnant during this month.
	Milch cow	Mastitis	-To prevent mastitis they should be milked completely.
Fishery:	La	136	
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Fries/ fingerlings/ brooders	Pond and water Feed	-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. 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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"Gramin Krishi Mausam Seva"

MANIPUR BULLETIN 13th May, 2016

Thoubal

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 14th to 18th May, 2016 as

Significant past weather for the preceding bi-weekly of Imphal - West $(10^{th}$ to 12^{th} May, 2016)

The sky was fair to mainly cloudy. Rainfall of 0.0 mm was recorded during past four days. Maximum temperature range observed was 28.8 to 31.3 $^{\circ}$ C, range of minimum temperature observed was 20.5 to 22.0 $^{\circ}$ C, mean relative humidity observed in morning and afternoon were 85.0 % and 61.0 % respectively. The average wind speed range was 4.5 to 6.6 km/hr.

Weather forecast for next five days of Thoubal (14th to 18th May, 2016)

Likely to have light rain upto Wednesday. Sky will remain variable to mainly cloudy, with maximum temp. 30.0 to 31.0 $^{\circ}$ C & minimum temp. 18.0 to 19.0 $^{\circ}$ C. Relative humidity may reach upto 91 % (max RH) & 35 % (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be South South-Easterly to North Westerly during the next five days.

Weather Outlook for subsequent 2 days from 18th to 20th May, 2016 Rain/thunderstorm likely at many places 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	Tillering		 - After rains, apply 30.0 kg Urea/ha at 25 to 30 days after transplanting, after complete removal of water. - Irrigate field after 48 hrs of top dressing and maintain water level at 5-8 cm. Drain out excess water accumulated due to rain.
Soybean	Sowing		Sowing may be done at spacing of 45 cm x 30 cm after rains. It is recommended to apply 44 kg of urea, 375kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. Seed rate is 40-45 kg/ha or 10-11.3 kg of seed /sangam and the recommended variety is J.S.335.
Groundnut	Sowing		Seed rate is 100-110 kg of Kernal/ha and the recommended varieties are ICGS-75 and JL-24. Sowing may be done at spacing of 30 cm x 15 cm after rains. It is recommended to apply 44 kg of urea, 375kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing.
Blackgram	Land preparation to sowing		Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling after rains. Treat the seed with Thiram or Captan @3 kg/ha.
Rabi Maize	Cob formation	Stem borer	- To control the infestation of stem borer, apply few granules of Carbofuradan 3G at maize whorl.
Horticulture Crops			
Cucurbits (Water- melon, pumpkin, sponge gourd, etc.)	Flowering & fruiting to harvesting	Powdery mildew or Downey mildew	- After the wet spell, harvest mature fruits then prophylactic spray of Mirado (Azoxystrobin 23%) @ 1ml/ lit of water or Bayleton (Triademiton 25WP) @ 0.7 g/ lit of water may be done twice at 10 &14 days intervals respectively agains Powdery mildew or Downey mildew specially in damped or moist area. - Avoid water logging in the field.
Tomato/ Chilli	Fruiting to harvest		Avoid water logging in the crop field.Retain mature and healthy fruits for seeds.
		Fruit rot	Avoid water logging and after rains spray Dithane M-45 @ 2 g/ lit of water twice at 7 days interval or Mirador (Azoxystrobin 23%) @ 1ml/ lit of water.
Ginger/Turmeric	Sowing		-The seed rhizome should be screened from pest and diseases -Spread in the shed for 1-2 days -Treat rhizome with Captan 50 W P or Hexaconazeb @ 3gm/kg seed & keep for ½ hour and sowing may be doneSpacing for Ginger -20cm X 30cm; turmeric- 20 cm X 45-50cm - Desirable weight of rhizome-15-25 gm with 2-3budsMulching with dried twigs/paddy straw is recommendedComplete sowing as early as possible preferably in the upland areasTrichoderma harzianum may also be used for seed treatment.
Bhindi/cowpea	Sowing		-Proper drainage should be given to drain excess water -Sowing should be done in permissible field condition.
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



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Animal Science	es .		
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Poultry (Chicken/ Turkey/ Duck)	All age groups All age groups	Care & management	 One dose of deworming is suggested using Piperazine liquid @ 40ml for 100birds/layers & 20ml for 100 growers & chicks once only. Add multivitamin syrup @ 10-20 ml. To protect from dehydration, provision for wholesome and clear water (cool) be maintained properly atleast four times during the day. Sheep should be sheared during this month.
Sheep/ Goat	excepts the young ones		- Pepirazine compound- 100mg/kg orally for 3 days.
		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	Deworming	-Give Morantel citrate tablet @ 15 mg/kg of body weight.
	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.
		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.
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		Endoparasites	- Deworm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Fodder crops	-Maize should be sown for use as green fodder/cowpea should be integratedNapier/Guinea grass may be transplantedSilage can be prepared.
		Puerperal Fever in Pregnant animals	-50-60 gram of mineral mixture every day.
		Decrease in milk production	-The milk & urine samples must be sent for testing.
	Breedable age group	Controlled breeding	-control breeding programme for animals should continue in the month of February so the all participating animals become pregnant during this month.
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Carp culture	Fries/ fingerlings/ brooders	Pond and water Feed	-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. 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.