



ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”

**MANIPUR BULLETIN****20th April, 2018****Bishnupur**

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 21st to 25th April, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (17th to 19th April, 2018)

Observed **4.8 mm** rainfall with **overcast sky** but **partly cloudy to mainly cloudy** during morning hours 17th and afternoon hours of 18th April. Maximum temperature recorded ranged from **26.9 to 28.1 °C** and minimum of **15.5 to 17.2 °C** with mean relative humidity **92.3 %** max and **63.3 %** min was recorded in the past three days.

Weather forecast for next five days of Bishnupur (21st to 25th April, 2018)

Likely to have scattered rainfall with thunderstorm and gusty winds during next five days and mainly cloudy to overcast sky with maximum temp. **28-29 °C** & minimum temp. **16-17 °C**. Relative humidity may reach up to **100 %** (max RH) & **56 %** (min RH). The average wind speed may be **0-2 km/hr**.

Field Crops

* Harvest rain water.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Pre-kharif Rice	Tillering		<ul style="list-style-type: none"> - Maintained optimum water depth of 5-8cm in the field. - One or two hand weeding may be done after 20-30 days of transplanting. Drain out excess water and top dress with Urea @33kg /ha and MOP @22kg/ha. Irrigate again after 48 hours of fertilizer application.
Maize	<i>For Rabi Maize</i> Vegetative to flowering & silking		<ul style="list-style-type: none"> - Drainage may be constructed well to avoid water logging in and around the crop field. - Construct wind breaks to avoid uprooting of standing crops by the high speed winds.
	<i>Kharif maize</i> Land preparation and seed collection		Land preparation for maize cultivation can be started. Apply 60kg of urea, 65kg of DAP and 30 kg of MOP as a basal application during final ploughing or at the time of sowing. Procure disease free quality seeds from reliable source.
Soybean/ Groundnut/ Blackgram/ Redgram	Seed collection to Land preparation		<ul style="list-style-type: none"> - Collect good quality seeds from reliable source for sowing. - Land preparation for sowing of soybean/ groundnut/ blackgram/ redgram may be started. - Apply 10–13 t/ ha or 2.5–3 t/ sangam of FYM or compost by mixing thoroughly in the soil 1-2 weeks before sowing.
Seeds storage	Post harvest management		For seed purpose store the seeds in RC-Seed Bin after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.

Horticulture Crops

** Drainage may be constructed well to avoid water logging in and around the crop field.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Mango	Flowering	Fruit fly/ beetle	- Use Methyl Euginol as trap @ 4-10 traps/ sangam.
Ginger & turmeric	Planting		Spacings for planting of ginger (25cm plant to plant and 25-30cm row to row) and turmeric (25cm plant to plant and 40-45cm row to row).
Cucurbits	Transplanting to vegetative	Mite	To prevent mite in the lower surface of leaves, use Neem oil @ 2-3 ml / litre of water.
		Red Pumpkin Beetle	If Red Pumpkin Beetle infestation is observed, Carbaryl (0.2%) or Chloropyriphos (0.05%) may be sprayed or use Methyl Euginol as trap @ 4-10 traps/ sangam.
Onion	Bulb maturity	Thrips/ leaf minor	- Spray Dichlorovos 36 EC @ 0.5ml/lit of water or Cypermethrin @ 2ml/lit of water to the crop during bulb formation stage.
		Bulb rot	- Spray Sixer/ (Mencozeb + Carbendazim) @ 2 gm/lit of water as prophylactic measure against Bulb rot in the crops grown in shed.
Colocasia	Land preparation for planting		- Prepare land for planting colocasia.
Tomato	Fruiting	Fruit borer	- Spray Sixer @ 2 gm/ litre of water or Rakhwala (Biopesticide) @ 1.5-2 gm/ litre of water. After 2-3 days spray a dose of Dichlorovos 76 @ 0.5 ml/litre of water or Black dog against borer @ 0.75ml/litre of water.

**ICAR Research Complex for N.E.H. Region**

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”

			- Construct wind breaks to avoid uprooting of standing crops by the high speed winds.
Animal Sciences			
* <i>Repair the sheds of birds and animals to protect from strong winds and rains.</i>			
* <i>Disinfect the farm premises of all livestock/ poultry (surrounding area of 3ft width) using the repellent agent/ insecticides spray.</i>			
Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Duck)	All age groups	• Ranikhet disease	• Strongly advise to Vaccinate against Ranikhet disease. Vaccinate the flock using Lasota strain vaccine through ocular route if the age of chick is less than 21 days and through nasal route if it is older than 21 days.
		• Coccidiosis	• Give Amprolium @ 2 gms/ litre of drinking water for 5-7 days.
Sheep/ Goat	All age groups	• Vaccination	• If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. this must be done during this month.
		• Management	• PPR immunization must be done once in every three years.
Pig	All age groups except the young ones	• De-worming	• Fly repellent must be used in the premises of the sheds.
		• Vaccination	• De-worm with Albendazole @7.5 mg/kg b.wt.
		• Skin disease	• Vaccinate against FMD and Swine Fever.
		• Management	• Sprayer of <i>Anti-Psoroptic</i> may be used.
Cattle	All age groups excepts the young ones	• Vaccination	• Breeding must be advocated continuously.
		• Deworming	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated.
		• Care & Management	• Cases of H.S. may be encountered during this period
			• Immediate treatment using appropriate drugs with the help of Consultant must be advocated to save the animals.
			• De-worm with Albomac suspension @60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
			• Mixture of mineral/ salts should be added in the feed.
			• Avoid the cattle from chiting/ biting by flies. Adopt tick control measures
			• Adequate care must be ensured for protecting from untimely strong rain/wind
• Fodder cultivation: Berseem/ oat crop may be sown immediately.			
Fishery			
* New fish ponds may be made or old ones may be renovated/ cleaned before for large scale fish culture.			
* Care must be taken for newly rain fed ponds by liming for stocking fish fries/ fingerlings or yearlings.			
* Intensive care must be taken for fish brooders by keeping them in separate ponds. It must be provided with balanced feed and good quality water.			
Type of Farming	Stage	management	Agro-metrological advisories
Carp culture	nurseries	Pond and water	Ponds water should be clean and clear free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m.
		Feed	Well balanced feeds should be provided 2-3 times a day @ 5-10% body weight/day
		Fish	20-30 million spawn can be stock in 1 ha pond.
	Grow -out	Pond and water	Regular manuring with a slurry of RCD @1500kg/ha at interval of 30 days should be done.
		Fish	8000-10,000 fingerlings can be stocked per ha.
		Feed	Sampling of fish for growth, diseases (if any) should be done by regular netting.
Paddy cum fish culture	Field		Well balanced feed should be provided @ 3-5% body weight per day in 2-3 splits.
Cat fish (Ngakra)	Field		Prepare trenches/channels in rice field of depth 1.0 - 1.5m can be start. 30-40% of the rice field can be converted into trenches/ditch/channels for paddy cum fish culture.
	Pond and water		Pond water may be replenished with fresh water maintaining a depth of 1m.
	Fish		Male and female brooder fishes may be segregated for breeding operations.
	Feed		Well balanced feed may be fed @ 3-5% body weight/day.

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



ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”

**MANIPUR BULLETIN****20th April, 2018**Chandel

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 21st to 25th April, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (17th to 19th April, 2018)

Observed **4.8 mm** rainfall with **overcast sky** but **partly cloudy to mainly cloudy** during morning hours 17th and afternoon hours of 18th April. Maximum temperature recorded ranged from **26.9 to 28.1 °C** and minimum of **15.5 to 17.2 °C** with mean relative humidity **92.3 %** max and **63.3 %** min was recorded in the past three days.

Weather forecast for next five days of Chandel (21st to 25th April, 2018)

Likely to have scattered rainfall with thunderstorm and gusty winds during next five days and mainly cloudy to overcast sky with maximum temp. **26-27 °C** & minimum temp. **16-17 °C**. Relative humidity may reach up to **89 %** (max RH) & **46 %** (min RH). The average wind speed may be **3-4 km/hr**.

Field Crops

* Harvest rain water.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Pre-kharif Rice	Tillering		<ul style="list-style-type: none"> - Maintained optimum water depth of 5-8cm in the field. - One or two hand weeding may be done after 20-30 days of transplanting. Drain out excess water and top dress with Urea @33kg /ha and MOP @22kg/ha. Irrigate again after 48 hours of fertilizer application.
Maize	<i>For Rabi Maize</i> Vegetative to flowering & silking		<ul style="list-style-type: none"> - Drainage may be constructed well to avoid water logging in and around the crop field. - Construct wind breaks to avoid uprooting of standing crops by the high speed winds.
	<i>Kharif maize</i> Land preparation and seed collection		Land preparation for maize cultivation can be started. Apply 60kg of urea, 65kg of DAP and 30 kg of MOP as a basal application during final ploughing or at the time of sowing. Procure disease free quality seeds from reliable source.
Soybean/ Groundnut/ Blackgram/ Redgram	Seed collection to Land preparation		<ul style="list-style-type: none"> - Collect good quality seeds from reliable source for sowing. - Land preparation for sowing of soybean/ groundnut/ blackgram/ redgram may be started. - Apply 10–13 t/ ha or 2.5–3 t/ sangam of FYM or compost by mixing thoroughly in the soil 1-2 weeks before sowing.
Seeds storage	Post harvest management		For seed purpose store the seeds in RC-Seed Bin after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.

Horticulture Crops

** Drainage may be constructed well to avoid water logging in and around the crop field.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Mango	Flowering	Fruit fly/ beetle	- Use Methyl Euginol as trap @ 4-10 traps/ sangam.
Ginger & turmeric	Planting		Spacings for planting of ginger (25cm plant to plant and 25-30cm row to row) and turmeric (25cm plant to plant and 40-45cm row to row).
Cucurbits	Transplanting to vegetative	Mite	To prevent mite in the lower surface of leaves, use Neem oil @ 2-3 ml / litre of water.
		Red Pumpkin Beetle	If Red Pumpkin Beetle infestation is observed, Carbaryl (0.2%) or Chloropyriphos (0.05%) may be sprayed or use Methyl Euginol as trap @ 4-10 traps/ sangam.
Onion	Bulb maturity	Thrips/ leaf minor	- Spray Dichlorovos 36 EC @ 0.5ml/lit of water or Cypermethrin @ 2ml/lit of water to the crop during bulb formation stage.
		Bulb rot	- Spray Sixer/ (Mencozeb + Carbendazim) @ 2 gm/lit of water as prophylactic measure against Bulb rot in the crops grown in shed.
Colocasia	Land preparation for planting		- Prepare land for planting colocasia.
Tomato	Fruiting	Fruit borer	- Spray Sixer @ 2 gm/ litre of water or Rakhwala (Biopesticide) @ 1.5-2 gm/ litre of water. After 2-3 days spray a dose of Dichlorovos 76 @ 0.5 ml/litre of water or Black dog against borer @ 0.75ml/litre of water.

**ICAR Research Complex for N.E.H. Region**

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”

			- Construct wind breaks to avoid uprooting of standing crops by the high speed winds.
Animal Sciences			
* <i>Repair the sheds of birds and animals to protect from strong winds and rains.</i>			
* <i>Disinfect the farm premises of all livestock/ poultry (surrounding area of 3ft width) using the repellent agent/ insecticides spray.</i>			
Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Duck)	All age groups	• Ranikhet disease	• Strongly advise to Vaccinate against Ranikhet disease. Vaccinate the flock using Lasota strain vaccine through ocular route if the age of chick is less than 21 days and through nasal route if it is older than 21 days.
		• Coccidiosis	• Give Amprolium @ 2 gms/ litre of drinking water for 5-7 days.
Sheep/ Goat	All age groups	• Vaccination	• If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. this must be done during this month.
		• Management	• PPR immunization must be done once in every three years.
Pig	All age groups except the young ones	• De-worming	• Fly repellent must be used in the premises of the sheds.
		• Vaccination	• De-worm with Albendazole @7.5 mg/kg b.wt.
		• Skin disease	• Vaccinate against FMD and Swine Fever.
		• Management	• Sprayer of <i>Anti-Psoroptic</i> may be used.
Cattle	All age groups excepts the young ones	• Vaccination	• Breeding must be advocated continuously.
		• Deworming	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated.
		• Care & Management	• Cases of H.S. may be encountered during this period
			• Immediate treatment using appropriate drugs with the help of Consultant must be advocated to save the animals.
			• De-worm with Albomac suspension @60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
			• Mixture of mineral/ salts should be added in the feed.
			• Avoid the cattle from chiting/ biting by flies. Adopt tick control measures
			• Adequate care must be ensured for protecting from untimely strong rain/wind
• Fodder cultivation: Berseem/ oat crop may be sown immediately.			
Fishery			
* New fish ponds may be made or old ones may be renovated/ cleaned before for large scale fish culture.			
* Care must be taken for newly rain fed ponds by liming for stocking fish fries/ fingerlings or yearlings.			
* Intensive care must be taken for fish brooders by keeping them in separate ponds. It must be provided with balanced feed and good quality water.			
Type of Farming	Stage	management	Agro-metrological advisories
Carp culture	nurseries	Pond and water	Ponds water should be clean and clear free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m.
		Feed	Well balanced feeds should be provided 2-3 times a day @ 5-10% body weight/day
		Fish	20-30 million spawn can be stock in 1 ha pond.
	Grow -out	Pond and water	Regular manuring with a slurry of RCD @1500kg/ha at interval of 30 days should be done.
		Fish	8000-10,000 fingerlings can be stocked per ha.
		Feed	Sampling of fish for growth, diseases (if any) should be done by regular netting.
Paddy cum fish culture	Field		Well balanced feed should be provided @ 3-5% body weight per day in 2-3 splits.
Cat fish (Ngakra)	Field		Prepare trenches/channels in rice field of depth 1.0 - 1.5m can be start. 30-40% of the rice field can be converted into trenches/ditch/channels for paddy cum fish culture.
	Pond and water		Pond water may be replenished with fresh water maintaining a depth of 1m.
	Fish		Male and female brooder fishes may be segregated for breeding operations.
	Feed		Well balanced feed may be fed @ 3-5% body weight/day.

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



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Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”

**MANIPUR BULLETIN****20th April, 2018****Churachandpur**

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 21st to 25th April, 2018 as below:

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Observed **4.8 mm** rainfall with **overcast sky** but **partly cloudy to mainly cloudy** during morning hours 17th and afternoon hours of 18th April. Maximum temperature recorded ranged from **26.9 to 28.1 °C** and minimum of **15.5 to 17.2 °C** with mean relative humidity **92.3 %** max and **63.3 %** min was recorded in the past three days.

Weather forecast for next five days of Churachandpur (21st to 25th April, 2018)

Likely to have scattered rainfall with thunderstorm and gusty winds during next five days and mainly cloudy to overcast sky with maximum temp. **27-28 °C** & minimum temp. **16 °C**. Relative humidity may reach up to **100 %** (max RH) & **60 %** (min RH). The average wind speed may be **2 km/hr**.

Field Crops

* Harvest rain water.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Pre-kharif Rice	Tillering		<ul style="list-style-type: none"> - Maintained optimum water depth of 5-8cm in the field. - One or two hand weeding may be done after 20-30 days of transplanting. Drain out excess water and top dress with Urea @33kg /ha and MOP @22kg/ha. Irrigate again after 48 hours of fertilizer application.
Maize	<i>For Rabi Maize</i> Vegetative to flowering & silking		<ul style="list-style-type: none"> - Drainage may be constructed well to avoid water logging in and around the crop field. - Construct wind breaks to avoid uprooting of standing crops by the high speed winds.
	<i>Kharif maize</i> Land preparation and seed collection		Land preparation for maize cultivation can be started. Apply 60kg of urea, 65kg of DAP and 30 kg of MOP as a basal application during final ploughing or at the time of sowing. Procure disease free quality seeds from reliable source.
Soybean/ Groundnut/ Blackgram/ Redgram	Seed collection to Land preparation		<ul style="list-style-type: none"> - Collect good quality seeds from reliable source for sowing. - Land preparation for sowing of soybean/ groundnut/ blackgram/ redgram may be started. - Apply 10–13 t/ ha or 2.5–3 t/ sangam of FYM or compost by mixing thoroughly in the soil 1-2 weeks before sowing.
Seeds storage	Post harvest management		For seed purpose store the seeds in RC-Seed Bin after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.

Horticulture Crops

** Drainage may be constructed well to avoid water logging in and around the crop field.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Mango	Flowering	Fruit fly/ beetle	- Use Methyl Euginol as trap @ 4-10 traps/ sangam.
Ginger & turmeric	Planting		Spacings for planting of ginger (25cm plant to plant and 25-30cm row to row) and turmeric (25cm plant to plant and 40-45cm row to row).
Cucurbits	Transplanting to vegetative	Mite	To prevent mite in the lower surface of leaves, use Neem oil @ 2-3 ml / litre of water.
		Red Pumpkin Beetle	If Red Pumpkin Beetle infestation is observed, Carbaryl (0.2%) or Chloropyriphos (0.05%) may be sprayed or use Methyl Euginol as trap @ 4-10 traps/ sangam.
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		Bulb rot	- Spray Sixer/ (Mencozeb + Carbendazim) @ 2 gm/lit of water as prophylactic measure against Bulb rot in the crops grown in shed.
Colocasia	Land preparation for planting		- Prepare land for planting colocasia.
Tomato	Fruiting	Fruit borer	- Spray Sixer @ 2 gm/ litre of water or Rakhwala (Biopesticide) @ 1.5-2 gm/ litre of water. After 2-3 days spray a dose of Dichlorovos 76 @ 0.5 ml/litre of water or Black dog against borer @ 0.75ml/litre of water.

**ICAR Research Complex for N.E.H. Region**

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”

			- Construct wind breaks to avoid uprooting of standing crops by the high speed winds.
Animal Sciences			
* <i>Repair the sheds of birds and animals to protect from strong winds and rains.</i>			
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		• Coccidiosis	• Give Amprolium @ 2 gms/ litre of drinking water for 5-7 days.
Sheep/ Goat	All age groups	• Vaccination	• If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. this must be done during this month.
		• Management	• PPR immunization must be done once in every three years.
Pig	All age groups except the young ones	• De-worming	• Fly repellent must be used in the premises of the sheds.
		• Vaccination	• De-worm with Albendazole @7.5 mg/kg b.wt.
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Cattle	All age groups excepts the young ones	• Vaccination	• Breeding must be advocated continuously.
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		• Care & Management	• Cases of H.S. may be encountered during this period
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Fishery			
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* Care must be taken for newly rain fed ponds by liming for stocking fish fries/ fingerlings or yearlings.			
* Intensive care must be taken for fish brooders by keeping them in separate ponds. It must be provided with balanced feed and good quality water.			
Type of Farming	Stage	management	Agro-metrological advisories
Carp culture	nurseries	Pond and water	Ponds water should be clean and clear free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m.
		Feed	Well balanced feeds should be provided 2-3 times a day @ 5-10% body weight/day
		Fish	20-30 million spawn can be stock in 1 ha pond.
	Grow -out	Pond and water	Regular manuring with a slurry of RCD @1500kg/ha at interval of 30 days should be done.
		Fish	8000-10,000 fingerlings can be stocked per ha.
		Feed	Sampling of fish for growth, diseases (if any) should be done by regular netting.
Paddy cum fish culture	Field		Well balanced feed should be provided @ 3-5% body weight per day in 2-3 splits.
Cat fish (Ngakra)	Field		Prepare trenches/channels in rice field of depth 1.0 - 1.5m can be start. 30-40% of the rice field can be converted into trenches/ditch/channels for paddy cum fish culture.
	Pond and water		Pond water may be replenished with fresh water maintaining a depth of 1m.
	Fish		Male and female brooder fishes may be segregated for breeding operations.
	Feed		Well balanced feed may be fed @ 3-5% body weight/day.

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



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Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”

**MANIPUR BULLETIN****20th April, 2018****Imphal East**

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 21st to 25th April, 2018 as below:

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Weather forecast for next five days of Imphal East (21st to 25th April, 2018)

Likely to have scattered rainfall with thunderstorm and gusty winds during next five days and mainly cloudy to overcast sky with maximum temp. **27-29 °C** & minimum temp. **16 °C**. Relative humidity may reach up to **100 %** (max RH) & **46 %** (min RH). The average wind speed may be **0-3 km/hr**.

Field Crops

* Harvest rain water.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Pre-kharif Rice	Tillering		<ul style="list-style-type: none"> - Maintained optimum water depth of 5-8cm in the field. - One or two hand weeding may be done after 20-30 days of transplanting. Drain out excess water and top dress with Urea @33kg /ha and MOP @22kg/ha. Irrigate again after 48 hours of fertilizer application.
Maize	<i>For Rabi Maize</i> Vegetative to flowering & silking		<ul style="list-style-type: none"> - Drainage may be constructed well to avoid water logging in and around the crop field. - Construct wind breaks to avoid uprooting of standing crops by the high speed winds.
	<i>Kharif maize</i> Land preparation and seed collection		Land preparation for maize cultivation can be started. Apply 60kg of urea, 65kg of DAP and 30 kg of MOP as a basal application during final ploughing or at the time of sowing. Procure disease free quality seeds from reliable source.
Soybean/ Groundnut/ Blackgram/ Redgram	Seed collection to Land preparation		<ul style="list-style-type: none"> - Collect good quality seeds from reliable source for sowing. - Land preparation for sowing of soybean/ groundnut/ blackgram/ redgram may be started. - Apply 10–13 t/ ha or 2.5–3 t/ sangam of FYM or compost by mixing thoroughly in the soil 1-2 weeks before sowing.
Seeds storage	Post harvest management		For seed purpose store the seeds in RC-Seed Bin after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.

Horticulture Crops

** Drainage may be constructed well to avoid water logging in and around the crop field.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Mango	Flowering	Fruit fly/ beetle	- Use Methyl Euginol as trap @ 4-10 traps/ sangam.
Ginger & turmeric	Planting		Spacings for planting of ginger (25cm plant to plant and 25-30cm row to row) and turmeric (25cm plant to plant and 40-45cm row to row).
Cucurbits	Transplanting to vegetative	Mite	To prevent mite in the lower surface of leaves, use Neem oil @ 2-3 ml / litre of water.
		Red Pumpkin Beetle	If Red Pumpkin Beetle infestation is observed, Carbaryl (0.2%) or Chloropyriphos (0.05%) may be sprayed or use Methyl Euginol as trap @ 4-10 traps/ sangam.
Onion	Bulb maturity	Thrips/ leaf minor	- Spray Dichlorovos 36 EC @ 0.5ml/lit of water or Cypermethrin @ 2ml/lit of water to the crop during bulb formation stage.
		Bulb rot	- Spray Sixer/ (Mencozeb + Carbendazim) @ 2 gm/lit of water as prophylactic measure against Bulb rot in the crops grown in shed.
Colocasia	Land preparation for planting		- Prepare land for planting colocasia.
Tomato	Fruiting	Fruit borer	- Spray Sixer @ 2 gm/ litre of water or Rakhwala (Biopesticide) @ 1.5-2 gm/ litre of water. After 2-3 days spray a dose of Dichlorovos 76 @ 0.5 ml/litre of water or Black dog against borer @ 0.75ml/litre of water.

**ICAR Research Complex for N.E.H. Region**

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”

			- Construct wind breaks to avoid uprooting of standing crops by the high speed winds.
Animal Sciences			
* <i>Repair the sheds of birds and animals to protect from strong winds and rains.</i>			
* <i>Disinfect the farm premises of all livestock/ poultry (surrounding area of 3ft width) using the repellent agent/ insecticides spray.</i>			
Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Duck)	All age groups	• Ranikhet disease	• Strongly advise to Vaccinate against Ranikhet disease. Vaccinate the flock using Lasota strain vaccine through ocular route if the age of chick is less than 21 days and through nasal route if it is older than 21 days.
		• Coccidiosis	• Give Amprolium @ 2 gms/ litre of drinking water for 5-7 days.
Sheep/ Goat	All age groups	• Vaccination	• If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. this must be done during this month.
		• Management	• PPR immunization must be done once in every three years.
Pig	All age groups except the young ones	• De-worming	• Fly repellent must be used in the premises of the sheds.
		• Vaccination	• De-worm with Albendazole @7.5 mg/kg b.wt.
		• Skin disease	• Vaccinate against FMD and Swine Fever.
		• Management	• Sprayer of <i>Anti-Psoroptic</i> may be used.
Cattle	All age groups excepts the young ones	• Vaccination	• Breeding must be advocated continuously.
		• Deworming	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated.
		• Care & Management	• Cases of H.S. may be encountered during this period
			• Immediate treatment using appropriate drugs with the help of Consultant must be advocated to save the animals.
			• De-worm with Albomac suspension @60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
			• Mixture of mineral/ salts should be added in the feed.
			• Avoid the cattle from chiting/ biting by flies. Adopt tick control measures
			• Adequate care must be ensured for protecting from untimely strong rain/wind
• Fodder cultivation: Berseem/ oat crop may be sown immediately.			
Fishery			
* New fish ponds may be made or old ones may be renovated/ cleaned before for large scale fish culture.			
* Care must be taken for newly rain fed ponds by liming for stocking fish fries/ fingerlings or yearlings.			
* Intensive care must be taken for fish brooders by keeping them in separate ponds. It must be provided with balanced feed and good quality water.			
Type of Farming	Stage	management	Agro-metrological advisories
Carp culture	nurseries	Pond and water	Ponds water should be clean and clear free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m.
		Feed	Well balanced feeds should be provided 2-3 times a day @ 5-10% body weight/day
		Fish	20-30 million spawn can be stock in 1 ha pond.
	Grow -out	Pond and water	Regular manuring with a slurry of RCD @1500kg/ha at interval of 30 days should be done.
		Fish	8000-10,000 fingerlings can be stocked per ha.
		Feed	Sampling of fish for growth, diseases (if any) should be done by regular netting.
Paddy cum fish culture	Field		Well balanced feed should be provided @ 3-5% body weight per day in 2-3 splits.
Cat fish (Ngakra)	Field		Prepare trenches/channels in rice field of depth 1.0 - 1.5m can be start. 30-40% of the rice field can be converted into trenches/ditch/channels for paddy cum fish culture.
	Pond and water		Pond water may be replenished with fresh water maintaining a depth of 1m.
	Fish		Male and female brooder fishes may be segregated for breeding operations.
	Feed		Well balanced feed may be fed @ 3-5% body weight/day.

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



ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”

**MANIPUR BULLETIN****20th April, 2018****Imphal West**

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 21st to 25th April, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (17th to 19th April, 2018)

Observed **4.8 mm** rainfall with **overcast sky** but **partly cloudy to mainly cloudy** during morning hours 17th and afternoon hours of 18th April. Maximum temperature recorded ranged from **26.9 to 28.1 °C** and minimum of **15.5 to 17.2 °C** with mean relative humidity **92.3 %** max and **63.3 %** min was recorded in the past three days.

Weather forecast for next five days of Imphal West (21st to 25th April, 2018)

Likely to have scattered rainfall with thunderstorm and gusty winds during next five days and mainly cloudy to overcast sky with maximum temp. **27-29 °C** & minimum temp. **16 °C**. Relative humidity may reach up to **100 %** (max RH) & **64 %** (min RH). The average wind speed may be **0-3 km/hr**.

Field Crops

* Harvest rain water.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Pre-kharif Rice	Tillering		- Maintained optimum water depth of 5-8cm in the field. - One or two hand weeding may be done after 20-30 days of transplanting. Drain out excess water and top dress with Urea @33kg /ha and MOP @22kg/ha. Irrigate again after 48 hours of fertilizer application.
Maize	<i>For Rabi Maize</i> Vegetative to flowering & silking		- Drainage may be constructed well to avoid water logging in and around the crop field. - Construct wind breaks to avoid uprooting of standing crops by the high speed winds.
	<i>Kharif maize</i> Land preparation and seed collection		Land preparation for maize cultivation can be started. Apply 60kg of urea, 65kg of DAP and 30 kg of MOP as a basal application during final ploughing or at the time of sowing. Procure disease free quality seeds from reliable source.
Soybean/ Groundnut/ Blackgram/ Redgram	Seed collection to Land preparation		- Collect good quality seeds from reliable source for sowing. - Land preparation for sowing of soybean/ groundnut/ blackgram/ redgram may be started. - Apply 10–13 t/ ha or 2.5–3 t/ sangam of FYM or compost by mixing thoroughly in the soil 1-2 weeks before sowing.
Seeds storage	Post harvest management		For seed purpose store the seeds in RC-Seed Bin after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.

Horticulture Crops

** Drainage may be constructed well to avoid water logging in and around the crop field.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Mango	Flowering	Fruit fly/ beetle	- Use Methyl Euginol as trap @ 4-10 traps/ sangam.
Ginger & turmeric	Planting		Spacings for planting of ginger (25cm plant to plant and 25-30cm row to row) and turmeric (25cm plant to plant and 40-45cm row to row).
Cucurbits	Transplanting to vegetative	Mite	To prevent mite in the lower surface of leaves, use Neem oil @ 2-3 ml / litre of water.
		Red Pumpkin Beetle	If Red Pumpkin Beetle infestation is observed, Carbaryl (0.2%) or Chloropyriphos (0.05%) may be sprayed or use Methyl Euginol as trap @ 4-10 traps/ sangam.
Onion	Bulb maturity	Thrips/ leaf minor	- Spray Dichlorovos 36 EC @ 0.5ml/lit of water or Cypermethrin @ 2ml/lit of water to the crop during bulb formation stage.
		Bulb rot	- Spray Sixer/ (Mencozeb + Carbendazim) @ 2 gm/lit of water as prophylactic measure against Bulb rot in the crops grown in shed.
Colocasia	Land preparation for planting		- Prepare land for planting colocasia.
Tomato	Fruiting	Fruit borer	- Spray Sixer @ 2 gm/ litre of water or Rakhwala (Biopesticide) @ 1.5-2 gm/ litre of water. After 2-3 days spray a dose of Dichlorovos 76 @ 0.5 ml/litre of water or Black dog against borer @ 0.75ml/litre of water.

**ICAR Research Complex for N.E.H. Region**

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”

			- Construct wind breaks to avoid uprooting of standing crops by the high speed winds.
Animal Sciences			
* <i>Repair the sheds of birds and animals to protect from strong winds and rains.</i>			
* <i>Disinfect the farm premises of all livestock/ poultry (surrounding area of 3ft width) using the repellent agent/ insecticides spray.</i>			
Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Duck)	All age groups	• Ranikhet disease	• Strongly advise to Vaccinate against Ranikhet disease. Vaccinate the flock using Lasota strain vaccine through ocular route if the age of chick is less than 21 days and through nasal route if it is older than 21 days.
		• Coccidiosis	• Give Amprolium @ 2 gms/ litre of drinking water for 5-7 days.
Sheep/ Goat	All age groups	• Vaccination	• If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. this must be done during this month.
		• Management	• PPR immunization must be done once in every three years.
Pig	All age groups except the young ones	• De-worming	• Fly repellent must be used in the premises of the sheds.
		• Vaccination	• De-worm with Albendazole @7.5 mg/kg b.wt.
		• Skin disease	• Vaccinate against FMD and Swine Fever.
		• Management	• Sprayer of <i>Anti-Psoroptic</i> may be used.
Cattle	All age groups excepts the young ones	• Vaccination	• Breeding must be advocated continuously.
		• Deworming	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated.
		• Care & Management	• Cases of H.S. may be encountered during this period
			• Immediate treatment using appropriate drugs with the help of Consultant must be advocated to save the animals.
			• De-worm with Albomac suspension @60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
			• Mixture of mineral/ salts should be added in the feed.
			• Avoid the cattle from chiting/ biting by flies. Adopt tick control measures
			• Adequate care must be ensured for protecting from untimely strong rain/wind
• Fodder cultivation: Berseem/ oat crop may be sown immediately.			
Fishery			
* New fish ponds may be made or old ones may be renovated/ cleaned before for large scale fish culture.			
* Care must be taken for newly rain fed ponds by liming for stocking fish fries/ fingerlings or yearlings.			
* Intensive care must be taken for fish brooders by keeping them in separate ponds. It must be provided with balanced feed and good quality water.			
Type of Farming	Stage	management	Agro-metrological advisories
Carp culture	nurseries	Pond and water	Ponds water should be clean and clear free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m.
		Feed	Well balanced feeds should be provided 2-3 times a day @ 5-10% body weight/day
		Fish	20-30 million spawn can be stock in 1 ha pond.
	Grow -out	Pond and water	Regular manuring with a slurry of RCD @1500kg/ha at interval of 30 days should be done.
		Fish	8000-10,000 fingerlings can be stocked per ha.
		Feed	Sampling of fish for growth, diseases (if any) should be done by regular netting.
Paddy cum fish culture	Field		Well balanced feed should be provided @ 3-5% body weight per day in 2-3 splits.
Cat fish (Ngakra)	Field		Prepare trenches/channels in rice field of depth 1.0 - 1.5m can be start. 30-40% of the rice field can be converted into trenches/ditch/channels for paddy cum fish culture.
	Pond and water		Pond water may be replenished with fresh water maintaining a depth of 1m.
	Fish		Male and female brooder fishes may be segregated for breeding operations.
	Feed		Well balanced feed may be fed @ 3-5% body weight/day.

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



ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”

**MANIPUR BULLETIN****20th April, 2018**Senapati

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 21st to 25th April, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (17th to 19th April, 2018)

Observed **4.8 mm** rainfall with **overcast sky** but **partly cloudy to mainly cloudy** during morning hours 17th and afternoon hours of 18th April. Maximum temperature recorded ranged from **26.9 to 28.1 °C** and minimum of **15.5 to 17.2 °C** with mean relative humidity **92.3 %** max and **63.3 %** min was recorded in the past three days.

Weather forecast for next five days of Senapati (21st to 25th April, 2018)

Likely to have scattered rainfall with thunderstorm and gusty winds during next five days and mainly cloudy to overcast sky with maximum temp. **25 °C** & minimum temp. **14-15 °C**. Relative humidity may reach up to **99 %** (max RH) & **54 %** (min RH). The average wind speed may be **2-4 km/hr**.

Field Crops

* Harvest rain water.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Pre-kharif Rice	Tillering		- Maintained optimum water depth of 5-8cm in the field. - One or two hand weeding may be done after 20-30 days of transplanting. Drain out excess water and top dress with Urea @33kg /ha and MOP @22kg/ha. Irrigate again after 48 hours of fertilizer application.
Maize	For Rabi Maize Vegetative to flowering & silking		- Drainage may be constructed well to avoid water logging in and around the crop field. - Construct wind breaks to avoid uprooting of standing crops by the high speed winds.
	Kharif maize Land preparation and seed collection		Land preparation for maize cultivation can be started. Apply 60kg of urea, 65kg of DAP and 30 kg of MOP as a basal application during final ploughing or at the time of sowing. Procure disease free quality seeds from reliable source.
Soybean/ Groundnut/ Blackgram/ Redgram	Seed collection to Land preparation		- Collect good quality seeds from reliable source for sowing. - Land preparation for sowing of soybean/ groundnut/ blackgram/ redgram may be started. - Apply 10-13 t/ ha or 2.5-3 t/ sangam of FYM or compost by mixing thoroughly in the soil 1-2 weeks before sowing.
Seeds storage	Post harvest management		For seed purpose store the seeds in RC-Seed Bin after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.

Horticulture Crops

** Drainage may be constructed well to avoid water logging in and around the crop field.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Mango	Flowering	Fruit fly/ beetle	- Use Methyl Eugenol as trap @ 4-10 traps/ sangam.
Ginger & turmeric	Planting		Spacings for planting of ginger (25cm plant to plant and 25-30cm row to row) and turmeric (25cm plant to plant and 40-45cm row to row).
Cucurbits	Transplanting to vegetative	Mite	To prevent mite in the lower surface of leaves, use Neem oil @ 2-3 ml / litre of water.
		Red Pumpkin Beetle	If Red Pumpkin Beetle infestation is observed, Carbaryl (0.2%) or Chloropyriphos (0.05%) may be sprayed or use Methyl Eugenol as trap @ 4-10 traps/ sangam.
Colocasia	Land preparation for planting		- Prepare land for planting colocasia.

Animal Sciences

* Repair the sheds of birds and animals to protect from strong winds and rains.

* Disinfect the farm premises of all livestock/ poultry (surrounding area of 3ft width) using the repellent agent/ insecticides spray.

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Duck)	All age groups	• Ranikhet disease	• Strongly advise to Vaccinate against Ranikhet disease. Vaccinate the flock using Lasota strain vaccine through ocular route if the age of chick is less than 21 days and through nasal route if it is older than 21 days.



ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”



		<ul style="list-style-type: none">• Coccidiosis	<ul style="list-style-type: none">• Give Amprolium @ 2 gms/ litre of drinking water for 5-7 days.
Sheep/ Goat	All age groups	<ul style="list-style-type: none">• Vaccination	<ul style="list-style-type: none">• If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. this must be done during this month.• PPR immunization must be done once in every three years.
		<ul style="list-style-type: none">• Management	<ul style="list-style-type: none">• Fly repellent must be used in the premises of the sheds.
Pig	All age groups except the young ones	<ul style="list-style-type: none">• De-worming	<ul style="list-style-type: none">• De-worm with Albendazole @7.5 mg/kg b.wt.
		<ul style="list-style-type: none">• Vaccination	<ul style="list-style-type: none">• Vaccinate against FMD and Swine Fever.
		<ul style="list-style-type: none">• Skin disease	<ul style="list-style-type: none">• Sprayer of <i>Anti-Psoroptic</i> may be used.
		<ul style="list-style-type: none">• Management	<ul style="list-style-type: none">• Breeding must be advocated continuously.
Cattle	All age groups excepts the young ones	<ul style="list-style-type: none">• Vaccination	<ul style="list-style-type: none">• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated.• Cases of H.S. may be encountered during this period• Immediate treatment using appropriate drugs with the help of Consultant must be advocated to save the animals.
		<ul style="list-style-type: none">• Deworming	<ul style="list-style-type: none">• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		<ul style="list-style-type: none">• Care & Management	<ul style="list-style-type: none">• Mixture of mineral/ salts should be added in the feed.• Avoid the cattle from chiting/ biting by flies. Adopt tick control measures
			<ul style="list-style-type: none">• Adequate care must be ensured for protecting from untimely strong rain/wind
<ul style="list-style-type: none">• Fodder cultivation: Berseem/ oat crop may be sown immediately.			
Fishery			
<ul style="list-style-type: none">* New fish ponds may be made or old ones may be renovated/ cleaned before for large scale fish culture.* Care must be taken for newly rain fed ponds by liming for stocking fish fries/ fingerlings or yearlings.* Intensive care must be taken for fish brooders by keeping them in separate ponds. It must be provided with balanced feed and good quality water.			
Type of Farming	Stage	management	Agro-metrological advisories
Carp culture	nurseries	Pond and water	Ponds water should be clean and clear free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m.
		Feed	Well balanced feeds should be provided 2-3 times a day @ 5-10% body weight/day
		Fish	20-30 million spawn can be stock in 1 ha pond.
	Grow -out	Pond and water	Regular manuring with a slurry of RCD @1500kg/ha at interval of 30 days should be done.
		Fish	8000-10,000 fingerlings can be stocked per ha. Sampling of fish for growth, diseases (if any) should be done by regular netting.
		Feed	Well balanced feed should be provided @ 3-5% body weight per day in 2-3 splits.
Paddy cum fish culture	Field		Prepare trenches/channels in rice field of depth 1.0 - 1.5m can be start. 30-40% of the rice field can be converted into trenches/ditch/channels for paddy cum fish culture.
Cat fish (Ngakra)	Pond and water		Pond water may be replenished with fresh water maintaining a depth of 1m.
	Fish		Male and female brooder fishes may be segregated for breeding operations.
	Feed		Well balanced feed may be fed @ 3-5% body weight/day.

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



ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”

**MANIPUR BULLETIN****20th April, 2018****Tamenglong**

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 21st to 25th April, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (17th to 19th April, 2018)

Observed **4.8 mm** rainfall with **overcast sky** but **partly cloudy to mainly cloudy** during morning hours 17th and afternoon hours of 18th April. Maximum temperature recorded ranged from **26.9 to 28.1 °C** and minimum of **15.5 to 17.2 °C** with mean relative humidity **92.3 %** max and **63.3 %** min was recorded in the past three days.

Weather forecast for next five days of Tamenglong (21st to 25th April, 2018)

Likely to have scattered rainfall with thunderstorm and gusty winds during next five days and mainly cloudy to overcast sky with maximum temp. **26-27 °C** & minimum temp. **15-16 °C**. Relative humidity may reach up to **99 %** (max RH) & **57 %** (min RH). The average wind speed may be **2-3 km/hr**.

Field Crops

* Harvest rain water.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Pre-kharif Rice	Tillering		- Maintained optimum water depth of 5-8cm in the field. - One or two hand weeding may be done after 20-30 days of transplanting. Drain out excess water and top dress with Urea @33kg /ha and MOP @22kg/ha. Irrigate again after 48 hours of fertilizer application.
Maize	<i>For Rabi Maize</i> Vegetative to flowering & silking		- Drainage may be constructed well to avoid water logging in and around the crop field. - Construct wind breaks to avoid uprooting of standing crops by the high speed winds.
	<i>Kharif maize</i> Land preparation and seed collection		Land preparation for maize cultivation can be started. Apply 60kg of urea, 65kg of DAP and 30 kg of MOP as a basal application during final ploughing or at the time of sowing. Procure disease free quality seeds from reliable source.
Soybean/ Groundnut/ Blackgram/ Redgram	Seed collection to Land preparation		- Collect good quality seeds from reliable source for sowing. - Land preparation for sowing of soybean/ groundnut/ blackgram/ redgram may be started. - Apply 10–13 t/ ha or 2.5–3 t/ sangam of FYM or compost by mixing thoroughly in the soil 1-2 weeks before sowing.
Seeds storage	Post harvest management		For seed purpose store the seeds in RC-Seed Bin after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.

Horticulture Crops

** Drainage may be constructed well to avoid water logging in and around the crop field.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Mango	Flowering	Fruit fly/ beetle	- Use Methyl Eugenol as trap @ 4-10 traps/ sangam.
Ginger & turmeric	Planting		Spacings for planting of ginger (25cm plant to plant and 25-30cm row to row) and turmeric (25cm plant to plant and 40-45cm row to row).
Cucurbits	Transplanting to vegetative	Mite	To prevent mite in the lower surface of leaves, use Neem oil @ 2-3 ml / litre of water.
		Red Pumpkin Beetle	If Red Pumpkin Beetle infestation is observed, Carbaryl (0.2%) or Chloropyriphos (0.05%) may be sprayed or use Methyl Eugenol as trap @ 4-10 traps/ sangam.
Onion	Bulb maturity	Thrips/ leaf minor	- Spray Dichlorovos 36 EC @ 0.5ml/lit of water or Cypermethrin @ 2ml/lit of water to the crop during bulb formation stage.
		Bulb rot	- Spray Sixer/ (Mencozeb + Carbendazim) @ 2 gm/lit of water as prophylactic measure against Bulb rot in the crops grown in shed.
Colocasia	Land preparation for planting		- Prepare land for planting colocasia.
Tomato	Fruiting	Fruit borer	- Spray Sixer @ 2 gm/ litre of water or Rakhwala (Biopesticide) @ 1.5-2 gm/ litre of water. After 2-3 days spray a dose of Dichlorovos 76 @ 0.5 ml/litre of water or Black dog against borer @ 0.75ml/litre of water.

**ICAR Research Complex for N.E.H. Region**

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”

			- Construct wind breaks to avoid uprooting of standing crops by the high speed winds.
Animal Sciences			
* <i>Repair the sheds of birds and animals to protect from strong winds and rains.</i>			
* <i>Disinfect the farm premises of all livestock/ poultry (surrounding area of 3ft width) using the repellent agent/ insecticides spray.</i>			
Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Duck)	All age groups	• Ranikhet disease	• Strongly advise to Vaccinate against Ranikhet disease. Vaccinate the flock using Lasota strain vaccine through ocular route if the age of chick is less than 21 days and through nasal route if it is older than 21 days.
		• Coccidiosis	• Give Amprolium @ 2 gms/ litre of drinking water for 5-7 days.
Sheep/ Goat	All age groups	• Vaccination	• If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. this must be done during this month.
		• Management	• PPR immunization must be done once in every three years.
Pig	All age groups except the young ones	• De-worming	• Fly repellent must be used in the premises of the sheds.
		• Vaccination	• De-worm with Albendazole @7.5 mg/kg b.wt.
		• Skin disease	• Vaccinate against FMD and Swine Fever.
		• Management	• Sprayer of <i>Anti-Psoroptic</i> may be used.
Cattle	All age groups excepts the young ones	• Vaccination	• Breeding must be advocated continuously.
		• Deworming	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated.
		• Care & Management	• Cases of H.S. may be encountered during this period
			• Immediate treatment using appropriate drugs with the help of Consultant must be advocated to save the animals.
			• De-worm with Albomac suspension @60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
			• Mixture of mineral/ salts should be added in the feed.
			• Avoid the cattle from chiting/ biting by flies. Adopt tick control measures
			• Adequate care must be ensured for protecting from untimely strong rain/wind
• Fodder cultivation: Berseem/ oat crop may be sown immediately.			
Fishery			
* New fish ponds may be made or old ones may be renovated/ cleaned before for large scale fish culture.			
* Care must be taken for newly rain fed ponds by liming for stocking fish fries/ fingerlings or yearlings.			
* Intensive care must be taken for fish brooders by keeping them in separate ponds. It must be provided with balanced feed and good quality water.			
Type of Farming	Stage	management	Agro-metrological advisories
Carp culture	nurseries	Pond and water	Ponds water should be clean and clear free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m.
		Feed	Well balanced feeds should be provided 2-3 times a day @ 5-10% body weight/day
		Fish	20-30 million spawn can be stock in 1 ha pond.
	Grow -out	Pond and water	Regular manuring with a slurry of RCD @1500kg/ha at interval of 30 days should be done.
		Fish	8000-10,000 fingerlings can be stocked per ha.
		Feed	Sampling of fish for growth, diseases (if any) should be done by regular netting.
Paddy cum fish culture	Field		Well balanced feed should be provided @ 3-5% body weight per day in 2-3 splits.
Cat fish (Ngakra)	Field		Prepare trenches/channels in rice field of depth 1.0 - 1.5m can be start. 30-40% of the rice field can be converted into trenches/ditch/channels for paddy cum fish culture.
	Pond and water		Pond water may be replenished with fresh water maintaining a depth of 1m.
	Fish		Male and female brooder fishes may be segregated for breeding operations.
	Feed		Well balanced feed may be fed @ 3-5% body weight/day.

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



ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”

**MANIPUR BULLETIN****20th April, 2018****Thoubal**

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 21st to 25th April, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (17th to 19th April, 2018)

Observed **4.8 mm** rainfall with **overcast sky** but **partly cloudy to mainly cloudy** during morning hours 17th and afternoon hours of 18th April. Maximum temperature recorded ranged from **26.9 to 28.1 °C** and minimum of **15.5 to 17.2 °C** with mean relative humidity **92.3 %** max and **63.3 %** min was recorded in the past three days.

Weather forecast for next five days of Thoubal (21st to 25th April, 2018)

Likely to have scattered rainfall with thunderstorm and gusty winds during next five days and mainly cloudy to overcast sky with maximum temp. **28-29 °C** & minimum temp. **16-17 °C**. Relative humidity may reach up to **100 %** (max RH) & **47 %** (min RH). The average wind speed may be **2-4 km/hr**.

Field Crops

* Harvest rain water.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Pre-kharif Rice	Tillering		<ul style="list-style-type: none"> - Maintained optimum water depth of 5-8cm in the field. - One or two hand weeding may be done after 20-30 days of transplanting. Drain out excess water and top dress with Urea @33kg /ha and MOP @22kg/ha. Irrigate again after 48 hours of fertilizer application.
Maize	<i>For Rabi Maize</i> Vegetative to flowering & silking		<ul style="list-style-type: none"> - Drainage may be constructed well to avoid water logging in and around the crop field. - Construct wind breaks to avoid uprooting of standing crops by the high speed winds.
	<i>Kharif maize</i> Land preparation and seed collection		Land preparation for maize cultivation can be started. Apply 60kg of urea, 65kg of DAP and 30 kg of MOP as a basal application during final ploughing or at the time of sowing. Procure disease free quality seeds from reliable source.
Soybean/ Groundnut/ Blackgram/ Redgram	Seed collection to Land preparation		<ul style="list-style-type: none"> - Collect good quality seeds from reliable source for sowing. - Land preparation for sowing of soybean/ groundnut/ blackgram/ redgram may be started. - Apply 10–13 t/ ha or 2.5–3 t/ sangam of FYM or compost by mixing thoroughly in the soil 1-2 weeks before sowing.
Seeds storage	Post harvest management		For seed purpose store the seeds in RC-Seed Bin after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.

Horticulture Crops

** Drainage may be constructed well to avoid water logging in and around the crop field.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Mango	Flowering	Fruit fly/ beetle	- Use Methyl Euginol as trap @ 4-10 traps/ sangam.
Ginger & turmeric	Planting		Spacings for planting of ginger (25cm plant to plant and 25-30cm row to row) and turmeric (25cm plant to plant and 40-45cm row to row).
Cucurbits	Transplanting to vegetative	Mite	To prevent mite in the lower surface of leaves, use Neem oil @ 2-3 ml / litre of water.
		Red Pumpkin Beetle	If Red Pumpkin Beetle infestation is observed, Carbaryl (0.2%) or Chloropyriphos (0.05%) may be sprayed or use Methyl Euginol as trap @ 4-10 traps/ sangam.
Onion	Bulb maturity	Thrips/ leaf minor	- Spray Dichlorovos 36 EC @ 0.5ml/lit of water or Cypermethrin @ 2ml/lit of water to the crop during bulb formation stage.
		Bulb rot	- Spray Sixer/ (Mencozeb + Carbendazim) @ 2 gm/lit of water as prophylactic measure against Bulb rot in the crops grown in shed.
Colocasia	Land preparation for planting		- Prepare land for planting colocasia.
Tomato	Fruiting	Fruit borer	- Spray Sixer @ 2 gm/ litre of water or Rakhwala (Biopesticide) @ 1.5-2 gm/ litre of water. After 2-3 days spray a dose of Dichlorovos 76 @ 0.5 ml/litre of water or Black dog against borer @ 0.75ml/litre of water.

**ICAR Research Complex for N.E.H. Region**

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”

			- Construct wind breaks to avoid uprooting of standing crops by the high speed winds.
Animal Sciences			
* <i>Repair the sheds of birds and animals to protect from strong winds and rains.</i>			
* <i>Disinfect the farm premises of all livestock/ poultry (surrounding area of 3ft width) using the repellent agent/ insecticides spray.</i>			
Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Duck)	All age groups	• Ranikhet disease	• Strongly advise to Vaccinate against Ranikhet disease. Vaccinate the flock using Lasota strain vaccine through ocular route if the age of chick is less than 21 days and through nasal route if it is older than 21 days.
		• Coccidiosis	• Give Amprolium @ 2 gms/ litre of drinking water for 5-7 days.
Sheep/ Goat	All age groups	• Vaccination	• If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. this must be done during this month.
		• Management	• PPR immunization must be done once in every three years.
Pig	All age groups except the young ones	• De-worming	• Fly repellent must be used in the premises of the sheds.
		• Vaccination	• De-worm with Albendazole @7.5 mg/kg b.wt.
		• Skin disease	• Vaccinate against FMD and Swine Fever.
		• Management	• Sprayer of <i>Anti-Psoroptic</i> may be used.
Cattle	All age groups excepts the young ones	• Vaccination	• Breeding must be advocated continuously.
		• Deworming	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated.
		• Care & Management	• Cases of H.S. may be encountered during this period
			• Immediate treatment using appropriate drugs with the help of Consultant must be advocated to save the animals.
			• De-worm with Albomac suspension @60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
			• Mixture of mineral/ salts should be added in the feed.
			• Avoid the cattle from chiting/ biting by flies. Adopt tick control measures
			• Adequate care must be ensured for protecting from untimely strong rain/wind
• Fodder cultivation: Berseem/ oat crop may be sown immediately.			
Fishery			
* New fish ponds may be made or old ones may be renovated/ cleaned before for large scale fish culture.			
* Care must be taken for newly rain fed ponds by liming for stocking fish fries/ fingerlings or yearlings.			
* Intensive care must be taken for fish brooders by keeping them in separate ponds. It must be provided with balanced feed and good quality water.			
Type of Farming	Stage	management	Agro-metrological advisories
Carp culture	nurseries	Pond and water	Ponds water should be clean and clear free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m.
		Feed	Well balanced feeds should be provided 2-3 times a day @ 5-10% body weight/day
		Fish	20-30 million spawn can be stock in 1 ha pond.
	Grow -out	Pond and water	Regular manuring with a slurry of RCD @1500kg/ha at interval of 30 days should be done.
		Fish	8000-10,000 fingerlings can be stocked per ha.
		Feed	Sampling of fish for growth, diseases (if any) should be done by regular netting.
Paddy cum fish culture	Field		Well balanced feed should be provided @ 3-5% body weight per day in 2-3 splits.
Cat fish (Ngakra)	Field		Prepare trenches/channels in rice field of depth 1.0 - 1.5m can be start. 30-40% of the rice field can be converted into trenches/ditch/channels for paddy cum fish culture.
	Pond and water		Pond water may be replenished with fresh water maintaining a depth of 1m.
	Fish		Male and female brooder fishes may be segregated for breeding operations.
	Feed		Well balanced feed may be fed @ 3-5% body weight/day.

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



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“Gramin Krishi Mausam Seva”

**MANIPUR BULLETIN****20th April, 2018****Ukhrul**

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 21st to 25th April, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (17th to 19th April, 2018)

Observed **4.8 mm** rainfall with **overcast sky** but **partly cloudy to mainly cloudy** during morning hours 17th and afternoon hours of 18th April. Maximum temperature recorded ranged from **26.9 to 28.1 °C** and minimum of **15.5 to 17.2 °C** with mean relative humidity **92.3 %** max and **63.3 %** min was recorded in the past three days.

Weather forecast for next five days of Ukhrul (21st to 25th April, 2018)

Likely to have scattered rainfall with thunderstorm and gusty winds during next five days and mainly cloudy to overcast sky with maximum temp. **26-27 °C** & minimum temp. **15-16 °C**. Relative humidity may reach up to **90 %** (max RH) & **46 %** (min RH). The average wind speed may be **3-4 km/hr**.

Field Crops

* Harvest rain water.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Pre-kharif Rice	Tillering		- Maintained optimum water depth of 5-8cm in the field. - One or two hand weeding may be done after 20-30 days of transplanting. Drain out excess water and top dress with Urea @33kg /ha and MOP @22kg/ha. Irrigate again after 48 hours of fertilizer application.
Maize	<i>For Rabi Maize</i> Vegetative to flowering & silking		- Drainage may be constructed well to avoid water logging in and around the crop field. - Construct wind breaks to avoid uprooting of standing crops by the high speed winds.
	<i>Kharif maize</i> Land preparation and seed collection		Land preparation for maize cultivation can be started. Apply 60kg of urea, 65kg of DAP and 30 kg of MOP as a basal application during final ploughing or at the time of sowing. Procure disease free quality seeds from reliable source.
Soybean/ Groundnut/ Blackgram/ Redgram	Seed collection to Land preparation		- Collect good quality seeds from reliable source for sowing. - Land preparation for sowing of soybean/ groundnut/ blackgram/ redgram may be started. - Apply 10-13 t/ ha or 2.5-3 t/ sangam of FYM or compost by mixing thoroughly in the soil 1-2 weeks before sowing.
Seeds storage	Post harvest management		For seed purpose store the seeds in RC-Seed Bin after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.

Horticulture Crops

** Drainage may be constructed well to avoid water logging in and around the crop field.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Mango	Flowering	Fruit fly/ beetle	- Use Methyl Euginol as trap @ 4-10 traps/ sangam.
Ginger & turmeric	Planting		Spacings for planting of ginger (25cm plant to plant and 25-30cm row to row) and turmeric (25cm plant to plant and 40-45cm row to row).
Cucurbits	Transplanting to vegetative	Mite	To prevent mite in the lower surface of leaves, use Neem oil @ 2-3 ml / litre of water.
		Red Pumpkin Beetle	If Red Pumpkin Beetle infestation is observed, Carbaryl (0.2%) or Chloropyriphos (0.05%) may be sprayed or use Methyl Euginol as trap @ 4-10 traps/ sangam.
Colocasia	Land preparation for planting		- Prepare land for planting colocasia.

Animal Sciences

* Repair the sheds of birds and animals to protect from strong winds and rains.

* Disinfect the farm premises of all livestock/ poultry (surrounding area of 3ft width) using the repellent agent/ insecticides spray.

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Duck)	All age groups	• Ranikhet disease	• Strongly advise to Vaccinate against Ranikhet disease. Vaccinate the flock using Lasota strain vaccine through ocular route if the age of chick is less than 21 days and through nasal route if it is older than 21 days.



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“Gramin Krishi Mausam Seva”



		<ul style="list-style-type: none">• Coccidiosis	<ul style="list-style-type: none">• Give Amprolium @ 2 gms/ litre of drinking water for 5-7 days.
Sheep/ Goat	All age groups	<ul style="list-style-type: none">• Vaccination	<ul style="list-style-type: none">• If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. this must be done during this month.• PPR immunization must be done once in every three years.
		<ul style="list-style-type: none">• Management	<ul style="list-style-type: none">• Fly repellent must be used in the premises of the sheds.
Pig	All age groups except the young ones	<ul style="list-style-type: none">• De-worming	<ul style="list-style-type: none">• De-worm with Albendazole @7.5 mg/kg b.wt.
		<ul style="list-style-type: none">• Vaccination	<ul style="list-style-type: none">• Vaccinate against FMD and Swine Fever.
		<ul style="list-style-type: none">• Skin disease	<ul style="list-style-type: none">• Sprayer of <i>Anti-Psoroptic</i> may be used.
		<ul style="list-style-type: none">• Management	<ul style="list-style-type: none">• Breeding must be advocated continuously.
Cattle	All age groups excepts the young ones	<ul style="list-style-type: none">• Vaccination	<ul style="list-style-type: none">• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated.• Cases of H.S. may be encountered during this period• Immediate treatment using appropriate drugs with the help of Consultant must be advocated to save the animals.
		<ul style="list-style-type: none">• Deworming	<ul style="list-style-type: none">• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		<ul style="list-style-type: none">• Care & Management	<ul style="list-style-type: none">• Mixture of mineral/ salts should be added in the feed.• Avoid the cattle from chiting/ biting by flies. Adopt tick control measures
			<ul style="list-style-type: none">• Adequate care must be ensured for protecting from untimely strong rain/wind
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Fishery			
<ul style="list-style-type: none">* New fish ponds may be made or old ones may be renovated/ cleaned before for large scale fish culture.* Care must be taken for newly rain fed ponds by liming for stocking fish fries/ fingerlings or yearlings.* Intensive care must be taken for fish brooders by keeping them in separate ponds. It must be provided with balanced feed and good quality water.			
Type of Farming	Stage	management	Agro-metrological advisories
Carp culture	nurseries	Pond and water	Ponds water should be clean and clear free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m.
		Feed	Well balanced feeds should be provided 2-3 times a day @ 5-10% body weight/day
		Fish	20-30 million spawn can be stock in 1 ha pond.
	Grow -out	Pond and water	Regular manuring with a slurry of RCD @1500kg/ha at interval of 30 days should be done.
		Fish	8000-10,000 fingerlings can be stocked per ha. Sampling of fish for growth, diseases (if any) should be done by regular netting.
		Feed	Well balanced feed should be provided @ 3-5% body weight per day in 2-3 splits.
Paddy cum fish culture	Field		Prepare trenches/channels in rice field of depth 1.0 - 1.5m can be start. 30-40% of the rice field can be converted into trenches/ditch/channels for paddy cum fish culture.
Cat fish (Ngakra)	Pond and water		Pond water may be replenished with fresh water maintaining a depth of 1m.
	Fish		Male and female brooder fishes may be segregated for breeding operations.
	Feed		Well balanced feed may be fed @ 3-5% body weight/day.

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