



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

**MANIPUR BULLETIN****20th March, 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 March, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (16th to 19th March, 2018)

Observed **28.6 mm** rainfall with mainly cloudy on morning hours, variable sky on afternoon & remained clear on 19th. Maximum temperature ranged of 23.6 to 27.2 °C and minimum of 10.5 to 16.1 °C with mean relative humidity 90.8 % max and 60.8 % min was recorded in the past four days.

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

Likely to have clear sky and rise in temperatures in the next two days then thunderstorm accompanied with gusty winds at isolated places thereafter, maximum temp. 29-30 °C & minimum temp. 12-13 °C. Relative humidity may reach up to 98 % (max RH) & 47 % (min RH). The average wind speed may be 2-4 km/hr.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Pre-kharif Rice	Nursery to Transplanting		<ul style="list-style-type: none"> - Transplant the seedlings immediately (not later than 2 days) after uprooting to avoid transplanting shocks. - After 3-4 days of transplanting water level of 5-8 cm may be maintained. - If seedling is not ready for transplanting, apply DAP 2 Kg/ha before 10 days of uprooting or apply 1% urea (1 g dissolve in 1 ltr water) and apply foliar spray.
Rapeseed/ Mustard	Maturity to harvesting		<ul style="list-style-type: none"> - Crop may be harvested when 75% of the siliquae mature/ turned yellow. The crop should be harvested in the morning before drying of morning dew to avoid shattering of pods. Heap the uprooted plants for maturing. - After threshing, seeds should be cleaned by winnowing.
Field Pea/ Lentil/ Blackgram (late variety)	Maturity to harvesting		Harvest mature pods. Retain well filled disease free mature pods for seeds.
		Pod borer	Apply Dichlorvos 15 ml/15 litres of water at 10 days interval for seeds.
Rabi Maize	Vegetative to pre-flowering		<ul style="list-style-type: none"> - If the soil is dry, give light irrigation to maintain soil moisture status. - Weeding may be done.
		Stem borer	- To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
Potato	Maturity to harvesting		<ul style="list-style-type: none"> - For seed: <ul style="list-style-type: none"> • Strict supervision on removal of unwanted plant type should be maintained. • Maturity days should be strictly maintained as per variety. • Harvest the crop after 10-15 days after haulm cutting.
		Early blight	• Apply Mancozeb or Mancozeb + Metalaxyl @ 20-30 g/15 ltr water.
Seeds storage	Post harvest management		<p>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 ratio. Check for moisture content or weight of charcoal and dry if required.</p> <p>For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.</p>
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Tree bean/ Lime/ Lemon	Land preparation and collection of planting material		<ul style="list-style-type: none"> - Preparation of pits or field for planting tree bean/ lime/ lemon/ banana may be started. - Collection of good planting material from reliable source may be done.
Ginger/ Turmeric	Planting		<ul style="list-style-type: none"> - While preparing land for planting ginger/ turmeric apply 1 t FYM, 65 kg Urea, 375 kg SSP and 80 kg MOP. - Recommended varieties: <ul style="list-style-type: none"> For turmeric: Megha turmeric For ginger: Nadia - Use healthy mother rhizome of 25-30g weight and plant at a spacing of 1 ft x 1 ft. Treat the seed rhizome with Captan (@ 2g/ lit water) or Mancozeb (@ 3g/ lit of water) for 15-20 minutes and keep under shed before planting.
Chilli/ capsicum	Nursery		In chillies and capsicum nursery, spray Carbendazim + Mancozeb (Sixer) @ 2 g per litre of water to control the fungal attack.
French bean	Sowing to vegetative		- Sowing of French bean may be done in prepared land. Seed rate for dwarf varieties is 65kg/ha (spacing is 30x45 cm from seed to seed and row to row) and 25-30kg/ha and for pole-type (spacing is 60x60cm with 2-3 seeds per hill).

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

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”

			- Give light irrigation after 2-3 days of sowing.
Bhindi	Sowing to vegetative		- Land preparation for sowing bhindi may be done. Sowing of bhindi/ ladies finger may be done at the spacing of 30cm x 45cm. 42 kg Urea 94 kg SSP and 25 Kg MOP per sangam at final stage of land preparation before sowing. - Give light irrigation after 2-3 days of sowing.
Cucurbits	Transplanting to vegetative		- Transplant already raised 4-leaf stage seedlings under low cost polyhouse. If transplanted in open field then mulching materials like paddy straw should be used to protect young plants from cold. Light watering must be done for already transplanted seedlings during morning hours.
Onion	Bulb formation to maturity		- During the bulb formation stage care should be taken that the neck portion is not disturbed above the ground level. - Light hoeing and irrigation is necessary to keep soil moist during this phase.
Tomato	Top dressing and earthing up		-40-45 days old tomato should be top dressed with 25 kg urea followed by earthing up and irrigation. -Spray Sixer (Mencozeb 63 & Carbendazim 13) @ 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.

Animal Sciences

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.
		• 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. • PPR immunization must be done once in every three years.
		• Management	• Fly repellent must be used in the premises of the sheds • insecticides
Pig	All age groups except the young ones	• De-worming	• De-worm with Albendazole @7.5 mg/kg b.wt.
		• Vaccination	• Vaccinate against FMD and Swine Fever.
		• Skin disease	• Sprayer of <i>Anti-Psoroptic</i> may be used
		• Management	• Breeding must be advocated continuously
Cattle	All age groups excepts the young ones	• Vaccination	• 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.
		• Deworming	• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		• Care & Management	• 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.			

(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 March, 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 March, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (16th to 19th March, 2018)

Observed **28.6 mm** rainfall with mainly cloudy on morning hours, variable sky on afternoon & remained clear on 19th. Maximum temperature ranged of 23.6 to 27.2 °C and minimum of 10.5 to 16.1 °C with mean relative humidity 90.8 % max and 60.8 % min was recorded in the past four days.

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

Likely to have clear sky and rise in temperatures in the next two days then thunderstorm accompanied with gusty winds at isolated places thereafter, maximum temp. 29-30 °C & minimum temp. 10-11 °C. Relative humidity may reach up to 86 % (max RH) & 39 % (min RH). The average wind speed may be 4-5 km/hr.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Pre-kharif Rice	Nursery to Transplanting		<ul style="list-style-type: none"> - Transplant the seedlings immediately (not later than 2 days) after uprooting to avoid transplanting shocks. - After 3-4 days of transplanting water level of 5-8 cm may be maintained. - If seedling is not ready for transplanting, apply DAP 2 Kg/ha before 10 days of uprooting or apply 1% urea (1 g dissolve in 1 ltr water) and apply foliar spray.
Rapeseed/ Mustard	Maturity to harvesting		<ul style="list-style-type: none"> - Crop may be harvested when 75% of the siliquae mature/ turned yellow. The crop should be harvested in the morning before drying of morning dew to avoid shattering of pods. Heap the uprooted plants for maturing. - After threshing, seeds should be cleaned by winnowing.
Field Pea/ Lentil/ Blackgram (late variety)	Maturity to harvesting		Harvest mature pods. Retain well filled disease free mature pods for seeds.
		Pod borer	Apply Dichlorvos 15 ml/15 litres of water at 10 days interval for seeds.
Rabi Maize	Vegetative to pre-flowering		<ul style="list-style-type: none"> - If the soil is dry, give light irrigation to maintain soil moisture status. - Weeding may be done.
		Stem borer	- To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
Potato	Maturity to harvesting		<ul style="list-style-type: none"> - For seed: <ul style="list-style-type: none"> • Strict supervision on removal of unwanted plant type should be maintained. • Maturity days should be strictly maintained as per variety. • Harvest the crop after 10-15 days after haulm cutting.
		Early blight	• Apply Mancozeb or Mancozeb + Metalaxyl @ 20-30 g/15 ltr water.
Seeds storage	Post harvest management		<p>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 ratio. Check for moisture content or weight of charcoal and dry if required.</p> <p>For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.</p>
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Tree bean/ Lime/ Lemon	Land preparation and collection of planting material		<ul style="list-style-type: none"> - Preparation of pits or field for planting tree bean/ lime/ lemon/ banana may be started. - Collection of good planting material from reliable source may be done.
Ginger/ Turmeric	Planting		<ul style="list-style-type: none"> - While preparing land for planting ginger/ turmeric apply 1 t FYM, 65 kg Urea, 375 kg SSP and 80 kg MOP. - Recommended varieties: <ul style="list-style-type: none"> For turmeric: Megha turmeric For ginger: Nadia - Use healthy mother rhizome of 25-30g weight and plant at a spacing of 1 ft x 1 ft. Treat the seed rhizome with Captan (@ 2g/ lit water) or Mancozeb (@ 3g/ lit of water) for 15-20 minutes and keep under shed before planting.
Chilli/ capsicum	Nursery		In chillies and capsicum nursery, spray Carbendazim + Mancozeb (Sixer) @ 2 g per litre of water to control the fungal attack.
French bean	Sowing to vegetative		- Sowing of French bean may be done in prepared land. Seed rate for dwarf varieties is 65kg/ha (spacing is 30x45 cm from seed to seed and row to row) and 25-30kg/ha and for pole-type (spacing is 60x60cm with 2-3 seeds per hill).

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

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”

			- Give light irrigation after 2-3 days of sowing.
Bhindi	Sowing to vegetative		- Land preparation for sowing bhindi may be done. Sowing of bhindi/ ladies finger may be done at the spacing of 30cm x 45cm. 42 kg Urea 94 kg SSP and 25 Kg MOP per sangam at final stage of land preparation before sowing. - Give light irrigation after 2-3 days of sowing.
Cucurbits	Transplanting to vegetative		- Transplant already raised 4-leaf stage seedlings under low cost polyhouse. If transplanted in open field then mulching materials like paddy straw should be used to protect young plants from cold. Light watering must be done for already transplanted seedlings during morning hours.
Onion	Bulb formation to maturity		- During the bulb formation stage care should be taken that the neck portion is not disturbed above the ground level. - Light hoeing and irrigation is necessary to keep soil moist during this phase.
Tomato	Top dressing and earthing up		-40-45 days old tomato should be top dressed with 25 kg urea followed by earthing up and irrigation. -Spray Sixer (Mencozeb 63 & Carbendazim 13) @ 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.

Animal Sciences

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.
		• 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. • PPR immunization must be done once in every three years.
		• Management	• Fly repellent must be used in the premises of the sheds • insecticides
Pig	All age groups except the young ones	• De-worming	• De-worm with Albendazole @7.5 mg/kg b.wt.
		• Vaccination	• Vaccinate against FMD and Swine Fever.
		• Skin disease	• Sprayer of <i>Anti-Psoroptic</i> may be used
		• Management	• Breeding must be advocated continuously
Cattle	All age groups excepts the young ones	• Vaccination	• 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.
		• Deworming	• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		• Care & Management	• 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.			

(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 March, 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 March, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (16th to 19th March, 2018)

Observed **28.6 mm** rainfall with mainly cloudy on morning hours, variable sky on afternoon & remained clear on 19th. Maximum temperature ranged of 23.6 to 27.2 °C and minimum of 10.5 to 16.1 °C with mean relative humidity 90.8 % max and 60.8 % min was recorded in the past four days.

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

Likely to have clear sky and rise in temperatures in the next two days then thunderstorm accompanied with gusty winds at isolated places thereafter, maximum temp. 29-30 °C & minimum temp. 16-18 °C. Relative humidity may reach up to 88 % (max RH) & 29 % (min RH). The average wind speed may be 3-4 km/hr.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Pre-kharif Rice	Nursery to Transplanting		<ul style="list-style-type: none"> - Transplant the seedlings immediately (not later than 2 days) after uprooting to avoid transplanting shocks. - After 3-4 days of transplanting water level of 5-8 cm may be maintained. - If seedling is not ready for transplanting, apply DAP 2 Kg/ha before 10 days of uprooting or apply 1% urea (1 g dissolve in 1 ltr water) and apply foliar spray.
Rapeseed/ Mustard	Maturity to harvesting		<ul style="list-style-type: none"> - Crop may be harvested when 75% of the siliquae mature/ turned yellow. The crop should be harvested in the morning before drying of morning dew to avoid shattering of pods. Heap the uprooted plants for maturing. - After threshing, seeds should be cleaned by winnowing.
Field Pea/ Lentil/ Blackgram (late variety)	Maturity to harvesting		Harvest mature pods. Retain well filled disease free mature pods for seeds.
		Pod borer	Apply Dichlorvos 15 ml/15 litres of water at 10 days interval for seeds.
Rabi Maize	Vegetative to pre-flowering		<ul style="list-style-type: none"> - If the soil is dry, give light irrigation to maintain soil moisture status. - Weeding may be done.
		Stem borer	- To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
Potato	Maturity to harvesting		<ul style="list-style-type: none"> - For seed: <ul style="list-style-type: none"> • Strict supervision on removal of unwanted plant type should be maintained. • Maturity days should be strictly maintained as per variety. • Harvest the crop after 10-15 days after haulm cutting.
		Early blight	• Apply Mancozeb or Mancozeb + Metalaxyl @ 20-30 g/15 ltr water.
Seeds storage	Post harvest management		<p>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 ratio. Check for moisture content or weight of charcoal and dry if required.</p> <p>For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.</p>
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Tree bean/ Lime/ Lemon	Land preparation and collection of planting material		<ul style="list-style-type: none"> - Preparation of pits or field for planting tree bean/ lime/ lemon/ banana may be started. - Collection of good planting material from reliable source may be done.
Ginger/ Turmeric	Planting		<ul style="list-style-type: none"> - While preparing land for planting ginger/ turmeric apply 1 t FYM, 65 kg Urea, 375 kg SSP and 80 kg MOP. - Recommended varieties: <ul style="list-style-type: none"> For turmeric: Megha turmeric For ginger: Nadia - Use healthy mother rhizome of 25-30g weight and plant at a spacing of 1 ft x 1 ft. Treat the seed rhizome with Captan (@ 2g/ lit water) or Mancozeb (@ 3g/ lit of water) for 15-20 minutes and keep under shed before planting.
Chilli/ capsicum	Nursery		In chillies and capsicum nursery, spray Carbendazim + Mancozeb (Sixer) @ 2 g per litre of water to control the fungal attack.
French bean	Sowing to vegetative		- Sowing of French bean may be done in prepared land. Seed rate for dwarf varieties is 65kg/ha (spacing is 30x45 cm from seed to seed and row to row) and 25-30kg/ha and for pole-type (spacing is 60x60cm with 2-3 seeds per hill).



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



			- Give light irrigation after 2-3 days of sowing.
Bhindi	Sowing to vegetative		- Land preparation for sowing bhindi may be done. Sowing of bhindi/ ladies finger may be done at the spacing of 30cm x 45cm. 42 kg Urea 94 kg SSP and 25 Kg MOP per sangam at final stage of land preparation before sowing. - Give light irrigation after 2-3 days of sowing.
Cucurbits	Transplanting to vegetative		- Transplant already raised 4-leaf stage seedlings under low cost polyhouse. If transplanted in open field then mulching materials like paddy straw should be used to protect young plants from cold. Light watering must be done for already transplanted seedlings during morning hours.
Onion	Bulb formation to maturity		- During the bulb formation stage care should be taken that the neck portion is not disturbed above the ground level. - Light hoeing and irrigation is necessary to keep soil moist during this phase.
Tomato	Top dressing and earthing up		-40-45 days old tomato should be top dressed with 25 kg urea followed by earthing up and irrigation. -Spray Sixer (Mencozeb 63 & Carbendazim 13) @ 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.

Animal Sciences

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.
		• 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. • PPR immunization must be done once in every three years.
		• Management	• Fly repellent must be used in the premises of the sheds • insecticides
Pig	All age groups except the young ones	• De-worming	• De-worm with Albendazole @7.5 mg/kg b.wt.
		• Vaccination	• Vaccinate against FMD and Swine Fever.
		• Skin disease	• Sprayer of <i>Anti-Psoroptic</i> may be used
		• Management	• Breeding must be advocated continuously
Cattle	All age groups excepts the young ones	• Vaccination	• 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.
		• Deworming	• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		• Care & Management	• 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.			

(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 March, 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 March, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (16th to 19th March, 2018)

Observed **28.6 mm** rainfall with mainly cloudy on morning hours, variable sky on afternoon & remained clear on 19th. Maximum temperature ranged of **23.6 to 27.2 °C** and minimum of 10.5 to 16.1 °C with mean relative humidity 90.8 % max and 60.8 % min was recorded in the past four days.

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

Likely to have clear sky and rise in temperatures in the next two days then thunderstorm accompanied with gusty winds at isolated places thereafter, maximum temp. **29-30 °C** & minimum temp. **16-18 °C**. Relative humidity may reach up to 88 % (max RH) & 29 % (min RH). The average wind speed may be 2-4 km/hr.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Pre-kharif Rice	Nursery to Transplanting		<ul style="list-style-type: none"> - Transplant the seedlings immediately (not later than 2 days) after uprooting to avoid transplanting shocks. - After 3-4 days of transplanting water level of 5-8 cm may be maintained. - If seedling is not ready for transplanting, apply DAP 2 Kg/ha before 10 days of uprooting or apply 1% urea (1 g dissolve in 1 ltr water) and apply foliar spray.
Rapeseed/ Mustard	Maturity to harvesting		<ul style="list-style-type: none"> - Crop may be harvested when 75% of the siliquae mature/ turned yellow. The crop should be harvested in the morning before drying of morning dew to avoid shattering of pods. Heap the uprooted plants for maturing. - After threshing, seeds should be cleaned by winnowing.
Field Pea/ Lentil/ Blackgram (late variety)	Maturity to harvesting		Harvest mature pods. Retain well filled disease free mature pods for seeds.
		Pod borer	Apply Dichlorvos 15 ml/15 litres of water at 10 days interval for seeds.
Rabi Maize	Vegetative to pre-flowering		<ul style="list-style-type: none"> - If the soil is dry, give light irrigation to maintain soil moisture status. - Weeding may be done.
		Stem borer	- To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
Potato	Maturity to harvesting		<ul style="list-style-type: none"> - For seed: <ul style="list-style-type: none"> • Strict supervision on removal of unwanted plant type should be maintained. • Maturity days should be strictly maintained as per variety. • Harvest the crop after 10-15 days after haulm cutting.
		Early blight	• Apply Mancozeb or Mancozeb + Metalaxyl @ 20-30 g/15 ltr water.
Seeds storage	Post harvest management		<p>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 ratio. Check for moisture content or weight of charcoal and dry if required.</p> <p>For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.</p>
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Tree bean/ Lime/ Lemon	Land preparation and collection of planting material		<ul style="list-style-type: none"> - Preparation of pits or field for planting tree bean/ lime/ lemon/ banana may be started. - Collection of good planting material from reliable source may be done.
Ginger/ Turmeric	Planting		<ul style="list-style-type: none"> - While preparing land for planting ginger/ turmeric apply 1 t FYM, 65 kg Urea, 375 kg SSP and 80 kg MOP. - Recommended varieties: <ul style="list-style-type: none"> For turmeric: Megha turmeric For ginger: Nadia - Use healthy mother rhizome of 25-30g weight and plant at a spacing of 1 ft x 1 ft. Treat the seed rhizome with Captan (@ 2g/ lit water) or Mancozeb (@ 3g/ lit of water) for 15-20 minutes and keep under shed before planting.
Chilli/ capsicum	Nursery		In chillies and capsicum nursery, spray Carbendazim + Mancozeb (Sixer) @ 2 g per litre of water to control the fungal attack.
French bean	Sowing to vegetative		- Sowing of French bean may be done in prepared land. Seed rate for dwarf varieties is 65kg/ha (spacing is 30x45 cm from seed to seed and row to row) and 25-30kg/ha and for pole-type (spacing is 60x60cm with 2-3 seeds per hill).



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



			- Give light irrigation after 2-3 days of sowing.
Bhindi	Sowing to vegetative		- Land preparation for sowing bhindi may be done. Sowing of bhindi/ ladies finger may be done at the spacing of 30cm x 45cm. 42 kg Urea 94 kg SSP and 25 Kg MOP per sangam at final stage of land preparation before sowing. - Give light irrigation after 2-3 days of sowing.
Cucurbits	Transplanting to vegetative		- Transplant already raised 4-leaf stage seedlings under low cost polyhouse. If transplanted in open field then mulching materials like paddy straw should be used to protect young plants from cold. Light watering must be done for already transplanted seedlings during morning hours.
Onion	Bulb formation to maturity		- During the bulb formation stage care should be taken that the neck portion is not disturbed above the ground level. - Light hoeing and irrigation is necessary to keep soil moist during this phase.
Tomato	Top dressing and earthing up		-40-45 days old tomato should be top dressed with 25 kg urea followed by earthing up and irrigation. -Spray Sixer (Mencozeb 63 & Carbendazim 13) @ 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.

Animal Sciences

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.
		• 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. • PPR immunization must be done once in every three years.
		• Management	• Fly repellent must be used in the premises of the sheds • insecticides
Pig	All age groups except the young ones	• De-worming	• De-worm with Albendazole @7.5 mg/kg b.wt.
		• Vaccination	• Vaccinate against FMD and Swine Fever.
		• Skin disease	• Sprayer of <i>Anti-Psoroptic</i> may be used
		• Management	• Breeding must be advocated continuously
Cattle	All age groups excepts the young ones	• Vaccination	• 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.
		• Deworming	• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		• Care & Management	• 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.			

(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 March, 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 March, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (16th to 19th March, 2018)

Observed **28.6 mm** rainfall with mainly cloudy on morning hours, variable sky on afternoon & remained clear on 19th. Maximum temperature ranged of **23.6 to 27.2 °C** and minimum of 10.5 to 16.1 °C with mean relative humidity 90.8 % max and 60.8 % min was recorded in the past four days.

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

Likely to have clear sky and rise in temperatures in the next two days then thunderstorm accompanied with gusty winds at isolated places thereafter, maximum temp. **29-30 °C** & minimum temp. **16-18 °C**. Relative humidity may reach up to 88 % (max RH) & 39 % (min RH). The average wind speed may be 2-5 km/hr.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Pre-kharif Rice	Nursery to Transplanting		<ul style="list-style-type: none"> - Transplant the seedlings immediately (not later than 2 days) after uprooting to avoid transplanting shocks. - After 3-4 days of transplanting water level of 5-8 cm may be maintained. - If seedling is not ready for transplanting, apply DAP 2 Kg/ha before 10 days of uprooting or apply 1% urea (1 g dissolve in 1 ltr water) and apply foliar spray.
Rapeseed/ Mustard	Maturity to harvesting		<ul style="list-style-type: none"> - Crop may be harvested when 75% of the siliquae mature/ turned yellow. The crop should be harvested in the morning before drying of morning dew to avoid shattering of pods. Heap the uprooted plants for maturing. - After threshing, seeds should be cleaned by winnowing.
Field Pea/ Lentil/ Blackgram (late variety)	Maturity to harvesting		Harvest mature pods. Retain well filled disease free mature pods for seeds.
		Pod borer	Apply Dichlorvos 15 ml/15 litres of water at 10 days interval for seeds.
Rabi Maize	Vegetative to pre-flowering		<ul style="list-style-type: none"> - If the soil is dry, give light irrigation to maintain soil moisture status. - Weeding may be done.
		Stem borer	- To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
Potato	Maturity to harvesting		<ul style="list-style-type: none"> - For seed: <ul style="list-style-type: none"> • Strict supervision on removal of unwanted plant type should be maintained. • Maturity days should be strictly maintained as per variety. • Harvest the crop after 10-15 days after haulm cutting.
		Early blight	• Apply Mancozeb or Mancozeb + Metalaxyl @ 20-30 g/15 ltr water.
Seeds storage	Post harvest management		<p>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 ratio. Check for moisture content or weight of charcoal and dry if required.</p> <p>For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.</p>
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Tree bean/ Lime/ Lemon	Land preparation and collection of planting material		<ul style="list-style-type: none"> - Preparation of pits or field for planting tree bean/ lime/ lemon/ banana may be started. - Collection of good planting material from reliable source may be done.
Ginger/ Turmeric	Planting		<ul style="list-style-type: none"> - While preparing land for planting ginger/ turmeric apply 1 t FYM, 65 kg Urea, 375 kg SSP and 80 kg MOP. - Recommended varieties: <ul style="list-style-type: none"> For turmeric: Megha turmeric For ginger: Nadia - Use healthy mother rhizome of 25-30g weight and plant at a spacing of 1 ft x 1 ft. Treat the seed rhizome with Captan (@ 2g/ lit water) or Mancozeb (@ 3g/ lit of water) for 15-20 minutes and keep under shed before planting.
Chilli/ capsicum	Nursery		In chillies and capsicum nursery, spray Carbendazim + Mancozeb (Sixer) @ 2 g per litre of water to control the fungal attack.
French bean	Sowing to vegetative		- Sowing of French bean may be done in prepared land. Seed rate for dwarf varieties is 65kg/ha (spacing is 30x45 cm from seed to seed and row to row) and 25-30kg/ha and for pole-type (spacing is 60x60cm with 2-3 seeds per hill).



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



			- Give light irrigation after 2-3 days of sowing.
Bhindi	Sowing to vegetative		- Land preparation for sowing bhindi may be done. Sowing of bhindi/ ladies finger may be done at the spacing of 30cm x 45cm. 42 kg Urea 94 kg SSP and 25 Kg MOP per sangam at final stage of land preparation before sowing. - Give light irrigation after 2-3 days of sowing.
Cucurbits	Transplanting to vegetative		- Transplant already raised 4-leaf stage seedlings under low cost polyhouse. If transplanted in open field then mulching materials like paddy straw should be used to protect young plants from cold. Light watering must be done for already transplanted seedlings during morning hours.
Onion	Bulb formation to maturity		- During the bulb formation stage care should be taken that the neck portion is not disturbed above the ground level. - Light hoeing and irrigation is necessary to keep soil moist during this phase.
Tomato	Top dressing and earthing up		-40-45 days old tomato should be top dressed with 25 kg urea followed by earthing up and irrigation. -Spray Sixer (Mencozeb 63 & Carbendazim 13) @ 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.

Animal Sciences

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.
		• 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. • PPR immunization must be done once in every three years.
		• Management	• Fly repellent must be used in the premises of the sheds • insecticides
Pig	All age groups except the young ones	• De-worming	• De-worm with Albendazole @7.5 mg/kg b.wt.
		• Vaccination	• Vaccinate against FMD and Swine Fever.
		• Skin disease	• Sprayer of <i>Anti-Psoroptic</i> may be used
		• Management	• Breeding must be advocated continuously
Cattle	All age groups excepts the young ones	• Vaccination	• 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.
		• Deworming	• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		• Care & Management	• 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.			

(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 March, 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 March, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (16th to 19th March, 2018)

Observed **28.6 mm** rainfall with mainly cloudy on morning hours, variable sky on afternoon & remained clear on 19th. Maximum temperature ranged of 23.6 to 27.2 °C and minimum of 10.5 to 16.1 °C with mean relative humidity 90.8 % max and 60.8 % min was recorded in the past four days.

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

Likely to have clear sky and rise in temperatures in the next two days then thunderstorm accompanied with gusty winds at isolated places thereafter, maximum temp. 25-26 °C & minimum temp. 8-9 °C. Relative humidity may reach up to 98 % (max RH) & 36 % (min RH). The average wind speed may be 2-4 km/hr.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Pre-kharif Rice	Nursery to Transplanting		<ul style="list-style-type: none"> - Transplant the seedlings immediately (not later than 2 days) after uprooting to avoid transplanting shocks. - After 3-4 days of transplanting water level of 5-8 cm may be maintained. - If seedling is not ready for transplanting, apply DAP 2 Kg/ha before 10 days of uprooting or apply 1% urea (1 g dissolve in 1 ltr water) and apply foliar spray.
Rapeseed/ Mustard	Maturity to harvesting		<ul style="list-style-type: none"> - Crop may be harvested when 75% of the siliquae mature/ turned yellow. The crop should be harvested in the morning before drying of morning dew to avoid shattering of pods. Heap the uprooted plants for maturing. - After threshing, seeds should be cleaned by winnowing.
Field Pea/ Lentil/ Blackgram (late variety)	Maturity to harvesting		Harvest mature pods. Retain well filled disease free mature pods for seeds.
		Pod borer	Apply Dichlorvos 15 ml/15 litres of water at 10 days interval for seeds.
Rabi Maize	Vegetative to pre-flowering		<ul style="list-style-type: none"> - If the soil is dry, give light irrigation to maintain soil moisture status. - Weeding may be done.
		Stem borer	- To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
Potato	Maturity to harvesting		<ul style="list-style-type: none"> - For seed: <ul style="list-style-type: none"> • Strict supervision on removal of unwanted plant type should be maintained. • Maturity days should be strictly maintained as per variety. • Harvest the crop after 10-15 days after haulm cutting.
		Early blight	• Apply Mancozeb or Mancozeb + Metalaxyl @ 20-30 g/15 ltr water.
Seeds storage	Post harvest management		<p>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 ratio. Check for moisture content or weight of charcoal and dry if required.</p> <p>For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.</p>
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Tree bean/ Lime/ Lemon	Land preparation and collection of planting material		<ul style="list-style-type: none"> - Preparation of pits or field for planting tree bean/ lime/ lemon/ banana may be started. - Collection of good planting material from reliable source may be done.
Ginger/ Turmeric	Planting		<ul style="list-style-type: none"> - While preparing land for planting ginger/ turmeric apply 1 t FYM, 65 kg Urea, 375 kg SSP and 80 kg MOP. - Recommended varieties: <ul style="list-style-type: none"> For turmeric: Megha turmeric For ginger: Nadia - Use healthy mother rhizome of 25-30g weight and plant at a spacing of 1 ft x 1 ft. Treat the seed rhizome with Captan (@ 2g/ lit water) or Mancozeb (@ 3g/ lit of water) for 15-20 minutes and keep under shed before planting.
Chilli/ capsicum	Nursery		In chillies and capsicum nursery, spray Carbendazim + Mancozeb (Sixer) @ 2 g per litre of water to control the fungal attack.
French bean	Sowing to vegetative		- Sowing of French bean may be done in prepared land. Seed rate for dwarf varieties is 65kg/ha (spacing is 30x45 cm from seed to seed and row to row) and 25-30kg/ha and for pole-type (spacing is 60x60cm with 2-3 seeds per hill).



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



			- Give light irrigation after 2-3 days of sowing.
Bhindi	Sowing to vegetative		- Land preparation for sowing bhindi may be done. Sowing of bhindi/ ladies finger may be done at the spacing of 30cm x 45cm. 42 kg Urea 94 kg SSP and 25 Kg MOP per sangam at final stage of land preparation before sowing. - Give light irrigation after 2-3 days of sowing.
Cucurbits	Transplanting to vegetative		- Transplant already raised 4-leaf stage seedlings under low cost polyhouse. If transplanted in open field then mulching materials like paddy straw should be used to protect young plants from cold. Light watering must be done for already transplanted seedlings during morning hours.
Onion	Bulb formation to maturity		- During the bulb formation stage care should be taken that the neck portion is not disturbed above the ground level. - Light hoeing and irrigation is necessary to keep soil moist during this phase.
Tomato	Top dressing and earthing up		-40-45 days old tomato should be top dressed with 25 kg urea followed by earthing up and irrigation. -Spray Sixer (Mencozeb 63 & Carbendazim 13) @ 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.

Animal Sciences

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.
		• 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. • PPR immunization must be done once in every three years.
		• Management	• Fly repellent must be used in the premises of the sheds • insecticides
Pig	All age groups except the young ones	• De-worming	• De-worm with Albendazole @7.5 mg/kg b.wt.
		• Vaccination	• Vaccinate against FMD and Swine Fever.
		• Skin disease	• Sprayer of <i>Anti-Psoroptic</i> may be used
		• Management	• Breeding must be advocated continuously
Cattle	All age groups excepts the young ones	• Vaccination	• 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.
		• Deworming	• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		• Care & Management	• 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.			

(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 March, 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 March, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (16th to 19th March, 2018)

Observed **28.6 mm** rainfall with mainly cloudy on morning hours, variable sky on afternoon & remained clear on 19th. Maximum temperature ranged of 23.6 to 27.2 °C and minimum of 10.5 to 16.1 °C with mean relative humidity 90.8 % max and 60.8 % min was recorded in the past four days.

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

Likely to have clear sky and rise in temperatures in the next two days then thunderstorm accompanied with gusty winds at isolated places thereafter, maximum temp. 26-27 °C & minimum temp. 9-10 °C. Relative humidity may reach up to 82 % (max RH) & 42 % (min RH). The average wind speed may be 2-4 km/hr.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Pre-kharif Rice	Nursery to Transplanting		<ul style="list-style-type: none"> - Transplant the seedlings immediately (not later than 2 days) after uprooting to avoid transplanting shocks. - After 3-4 days of transplanting water level of 5-8 cm may be maintained. - If seedling is not ready for transplanting, apply DAP 2 Kg/ha before 10 days of uprooting or apply 1% urea (1 g dissolve in 1 ltr water) and apply foliar spray.
Rapeseed/ Mustard	Maturity to harvesting		<ul style="list-style-type: none"> - Crop may be harvested when 75% of the siliquae mature/ turned yellow. The crop should be harvested in the morning before drying of morning dew to avoid shattering of pods. Heap the uprooted plants for maturing. - After threshing, seeds should be cleaned by winnowing.
Field Pea/ Lentil/ Blackgram (late variety)	Maturity to harvesting		Harvest mature pods. Retain well filled disease free mature pods for seeds.
		Pod borer	Apply Dichlorvos 15 ml/15 litres of water at 10 days interval for seeds.
Rabi Maize	Vegetative to pre-flowering		<ul style="list-style-type: none"> - If the soil is dry, give light irrigation to maintain soil moisture status. - Weeding may be done.
		Stem borer	- To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
Potato	Maturity to harvesting		<ul style="list-style-type: none"> - For seed: <ul style="list-style-type: none"> • Strict supervision on removal of unwanted plant type should be maintained. • Maturity days should be strictly maintained as per variety. • Harvest the crop after 10-15 days after haulm cutting.
		Early blight	• Apply Mancozeb or Mancozeb + Metalaxyl @ 20-30 g/15 ltr water.
Seeds storage	Post harvest management		<p>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 ratio. Check for moisture content or weight of charcoal and dry if required.</p> <p>For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.</p>
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Tree bean/ Lime/ Lemon	Land preparation and collection of planting material		<ul style="list-style-type: none"> - Preparation of pits or field for planting tree bean/ lime/ lemon/ banana may be started. - Collection of good planting material from reliable source may be done.
Ginger/ Turmeric	Planting		<ul style="list-style-type: none"> - While preparing land for planting ginger/ turmeric apply 1 t FYM, 65 kg Urea, 375 kg SSP and 80 kg MOP. - Recommended varieties: <ul style="list-style-type: none"> For turmeric: Megha turmeric For ginger: Nadia - Use healthy mother rhizome of 25-30g weight and plant at a spacing of 1 ft x 1 ft. Treat the seed rhizome with Captan (@ 2g/ lit water) or Mancozeb (@ 3g/ lit of water) for 15-20 minutes and keep under shed before planting.
Chilli/ capsicum	Nursery		In chillies and capsicum nursery, spray Carbendazim + Mancozeb (Sixer) @ 2 g per litre of water to control the fungal attack.
French bean	Sowing to vegetative		- Sowing of French bean may be done in prepared land. Seed rate for dwarf varieties is 65kg/ha (spacing is 30x45 cm from seed to seed and row to row) and 25-30kg/ha and for pole-type (spacing is 60x60cm with 2-3 seeds per hill).



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



			- Give light irrigation after 2-3 days of sowing.
Bhindi	Sowing to vegetative		- Land preparation for sowing bhindi may be done. Sowing of bhindi/ ladies finger may be done at the spacing of 30cm x 45cm. 42 kg Urea 94 kg SSP and 25 Kg MOP per sangam at final stage of land preparation before sowing. - Give light irrigation after 2-3 days of sowing.
Cucurbits	Transplanting to vegetative		- Transplant already raised 4-leaf stage seedlings under low cost polyhouse. If transplanted in open field then mulching materials like paddy straw should be used to protect young plants from cold. Light watering must be done for already transplanted seedlings during morning hours.
Onion	Bulb formation to maturity		- During the bulb formation stage care should be taken that the neck portion is not disturbed above the ground level. - Light hoeing and irrigation is necessary to keep soil moist during this phase.
Tomato	Top dressing and earthing up		-40-45 days old tomato should be top dressed with 25 kg urea followed by earthing up and irrigation. -Spray Sixer (Mencozeb 63 & Carbendazim 13) @ 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.

Animal Sciences

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.
		• 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. • PPR immunization must be done once in every three years.
		• Management	• Fly repellent must be used in the premises of the sheds • insecticides
Pig	All age groups except the young ones	• De-worming	• De-worm with Albendazole @7.5 mg/kg b.wt.
		• Vaccination	• Vaccinate against FMD and Swine Fever.
		• Skin disease	• Sprayer of <i>Anti-Psoroptic</i> may be used
		• Management	• Breeding must be advocated continuously
Cattle	All age groups excepts the young ones	• Vaccination	• 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.
		• Deworming	• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		• Care & Management	• 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.			

(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 March, 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 March, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (16th to 19th March, 2018)

Observed **28.6 mm** rainfall with mainly cloudy on morning hours, variable sky on afternoon & remained clear on 19th. Maximum temperature ranged of 23.6 to 27.2 °C and minimum of 10.5 to 16.1 °C with mean relative humidity 90.8 % max and 60.8 % min was recorded in the past four days.

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

Likely to have clear sky and rise in temperatures in the next two days then thunderstorm accompanied with gusty winds at isolated places thereafter, maximum temp. 29-30 °C & minimum temp. 12-13 °C. Relative humidity may reach up to 83 % (max RH) & 39 % (min RH). The average wind speed may be 2-4 km/hr.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Pre-kharif Rice	Nursery to Transplanting		<ul style="list-style-type: none"> - Transplant the seedlings immediately (not later than 2 days) after uprooting to avoid transplanting shocks. - After 3-4 days of transplanting water level of 5-8 cm may be maintained. - If seedling is not ready for transplanting, apply DAP 2 Kg/ha before 10 days of uprooting or apply 1% urea (1 g dissolve in 1 ltr water) and apply foliar spray.
Rapeseed/ Mustard	Maturity to harvesting		<ul style="list-style-type: none"> - Crop may be harvested when 75% of the siliquae mature/ turned yellow. The crop should be harvested in the morning before drying of morning dew to avoid shattering of pods. Heap the uprooted plants for maturing. - After threshing, seeds should be cleaned by winnowing.
Field Pea/ Lentil/ Blackgram (late variety)	Maturity to harvesting		Harvest mature pods. Retain well filled disease free mature pods for seeds.
		Pod borer	Apply Dichlorvos 15 ml/15 litres of water at 10 days interval for seeds.
Rabi Maize	Vegetative to pre-flowering		<ul style="list-style-type: none"> - If the soil is dry, give light irrigation to maintain soil moisture status. - Weeding may be done.
		Stem borer	- To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
Potato	Maturity to harvesting		<ul style="list-style-type: none"> - For seed: <ul style="list-style-type: none"> • Strict supervision on removal of unwanted plant type should be maintained. • Maturity days should be strictly maintained as per variety. • Harvest the crop after 10-15 days after haulm cutting.
		Early blight	• Apply Mancozeb or Mancozeb + Metalaxyl @ 20-30 g/15 ltr water.
Seeds storage	Post harvest management		<p>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 ratio. Check for moisture content or weight of charcoal and dry if required.</p> <p>For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.</p>
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Tree bean/ Lime/ Lemon	Land preparation and collection of planting material		<ul style="list-style-type: none"> - Preparation of pits or field for planting tree bean/ lime/ lemon/ banana may be started. - Collection of good planting material from reliable source may be done.
Ginger/ Turmeric	Planting		<ul style="list-style-type: none"> - While preparing land for planting ginger/ turmeric apply 1 t FYM, 65 kg Urea, 375 kg SSP and 80 kg MOP. - Recommended varieties: <ul style="list-style-type: none"> For turmeric: Megha turmeric For ginger: Nadia - Use healthy mother rhizome of 25-30g weight and plant at a spacing of 1 ft x 1 ft. Treat the seed rhizome with Captan (@ 2g/ lit water) or Mancozeb (@ 3g/ lit of water) for 15-20 minutes and keep under shed before planting.
Chilli/ capsicum	Nursery		In chillies and capsicum nursery, spray Carbendazim + Mancozeb (Sixer) @ 2 g per litre of water to control the fungal attack.
French bean	Sowing to vegetative		- Sowing of French bean may be done in prepared land. Seed rate for dwarf varieties is 65kg/ha (spacing is 30x45 cm from seed to seed and row to row) and 25-30kg/ha and for pole-type (spacing is 60x60cm with 2-3 seeds per hill).



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



			- Give light irrigation after 2-3 days of sowing.
Bhindi	Sowing to vegetative		- Land preparation for sowing bhindi may be done. Sowing of bhindi/ ladies finger may be done at the spacing of 30cm x 45cm. 42 kg Urea 94 kg SSP and 25 Kg MOP per sangam at final stage of land preparation before sowing. - Give light irrigation after 2-3 days of sowing.
Cucurbits	Transplanting to vegetative		- Transplant already raised 4-leaf stage seedlings under low cost polyhouse. If transplanted in open field then mulching materials like paddy straw should be used to protect young plants from cold. Light watering must be done for already transplanted seedlings during morning hours.
Onion	Bulb formation to maturity		- During the bulb formation stage care should be taken that the neck portion is not disturbed above the ground level. - Light hoeing and irrigation is necessary to keep soil moist during this phase.
Tomato	Top dressing and earthing up		-40-45 days old tomato should be top dressed with 25 kg urea followed by earthing up and irrigation. -Spray Sixer (Mencozeb 63 & Carbendazim 13) @ 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.

Animal Sciences

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.
		• 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. • PPR immunization must be done once in every three years.
		• Management	• Fly repellent must be used in the premises of the sheds • insecticides
Pig	All age groups except the young ones	• De-worming	• De-worm with Albendazole @7.5 mg/kg b.wt.
		• Vaccination	• Vaccinate against FMD and Swine Fever.
		• Skin disease	• Sprayer of <i>Anti-Psoroptic</i> may be used
		• Management	• Breeding must be advocated continuously
Cattle	All age groups excepts the young ones	• Vaccination	• 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.
		• Deworming	• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		• Care & Management	• 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.			

(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 March, 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 March, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (16th to 19th March, 2018)

Observed **28.6 mm** rainfall with mainly cloudy on morning hours, variable sky on afternoon & remained clear on 19th. Maximum temperature ranged of 23.6 to 27.2 °C and minimum of 10.5 to 16.1 °C with mean relative humidity 90.8 % max and 60.8 % min was recorded in the past four days.

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

Likely to have clear sky and rise in temperatures in the next two days then thunderstorm accompanied with gusty winds at isolated places thereafter, maximum temp. 26-27 °C & minimum temp. 9-10 °C. Relative humidity may reach up to 82 % (max RH) & 42 % (min RH). The average wind speed may be 3-4 km/hr.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Pre-kharif Rice	Nursery to Transplanting		<ul style="list-style-type: none"> - Transplant the seedlings immediately (not later than 2 days) after uprooting to avoid transplanting shocks. - After 3-4 days of transplanting water level of 5-8 cm may be maintained. - If seedling is not ready for transplanting, apply DAP 2 Kg/ha before 10 days of uprooting or apply 1% urea (1 g dissolve in 1 ltr water) and apply foliar spray.
Rapeseed/ Mustard	Maturity to harvesting		<ul style="list-style-type: none"> - Crop may be harvested when 75% of the siliquae mature/ turned yellow. The crop should be harvested in the morning before drying of morning dew to avoid shattering of pods. Heap the uprooted plants for maturing. - After threshing, seeds should be cleaned by winnowing.
Field Pea/ Lentil/ Blackgram (late variety)	Maturity to harvesting		Harvest mature pods. Retain well filled disease free mature pods for seeds.
		Pod borer	Apply Dichlorvos 15 ml/15 litres of water at 10 days interval for seeds.
Rabi Maize	Vegetative to pre-flowering		<ul style="list-style-type: none"> - If the soil is dry, give light irrigation to maintain soil moisture status. - Weeding may be done.
		Stem borer	- To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
Potato	Maturity to harvesting		<ul style="list-style-type: none"> - For seed: <ul style="list-style-type: none"> • Strict supervision on removal of unwanted plant type should be maintained. • Maturity days should be strictly maintained as per variety. • Harvest the crop after 10-15 days after haulm cutting.
		Early blight	• Apply Mancozeb or Mancozeb + Metalaxyl @ 20-30 g/15 ltr water.
Seeds storage	Post harvest management		<p>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 ratio. Check for moisture content or weight of charcoal and dry if required.</p> <p>For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.</p>
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Tree bean/ Lime/ Lemon	Land preparation and collection of planting material		<ul style="list-style-type: none"> - Preparation of pits or field for planting tree bean/ lime/ lemon/ banana may be started. - Collection of good planting material from reliable source may be done.
Ginger/ Turmeric	Planting		<ul style="list-style-type: none"> - While preparing land for planting ginger/ turmeric apply 1 t FYM, 65 kg Urea, 375 kg SSP and 80 kg MOP. - Recommended varieties: <ul style="list-style-type: none"> For turmeric: Megha turmeric For ginger: Nadia - Use healthy mother rhizome of 25-30g weight and plant at a spacing of 1 ft x 1 ft. Treat the seed rhizome with Captan (@ 2g/ lit water) or Mancozeb (@ 3g/ lit of water) for 15-20 minutes and keep under shed before planting.
Chilli/ capsicum	Nursery		In chillies and capsicum nursery, spray Carbendazim + Mancozeb (Sixer) @ 2 g per litre of water to control the fungal attack.
French bean	Sowing to vegetative		- Sowing of French bean may be done in prepared land. Seed rate for dwarf varieties is 65kg/ha (spacing is 30x45 cm from seed to seed and row to row) and 25-30kg/ha and for pole-type (spacing is 60x60cm with 2-3 seeds per hill).



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



			- Give light irrigation after 2-3 days of sowing.
Bhindi	Sowing to vegetative		- Land preparation for sowing bhindi may be done. Sowing of bhindi/ ladies finger may be done at the spacing of 30cm x 45cm. 42 kg Urea 94 kg SSP and 25 Kg MOP per sangam at final stage of land preparation before sowing. - Give light irrigation after 2-3 days of sowing.
Cucurbits	Transplanting to vegetative		- Transplant already raised 4-leaf stage seedlings under low cost polyhouse. If transplanted in open field then mulching materials like paddy straw should be used to protect young plants from cold. Light watering must be done for already transplanted seedlings during morning hours.
Onion	Bulb formation to maturity		- During the bulb formation stage care should be taken that the neck portion is not disturbed above the ground level. - Light hoeing and irrigation is necessary to keep soil moist during this phase.
Tomato	Top dressing and earthing up		-40-45 days old tomato should be top dressed with 25 kg urea followed by earthing up and irrigation. -Spray Sixer (Mencozeb 63 & Carbendazim 13) @ 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.

Animal Sciences

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.
		• 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. • PPR immunization must be done once in every three years.
		• Management	• Fly repellent must be used in the premises of the sheds • insecticides
Pig	All age groups except the young ones	• De-worming	• De-worm with Albendazole @7.5 mg/kg b.wt.
		• Vaccination	• Vaccinate against FMD and Swine Fever.
		• Skin disease	• Sprayer of <i>Anti-Psoroptic</i> may be used
		• Management	• Breeding must be advocated continuously
Cattle	All age groups excepts the young ones	• Vaccination	• 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.
		• Deworming	• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		• Care & Management	• 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.			

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