



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

**MANIPUR BULLETIN****30th January, 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 31st January to 4th February, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (26th to 29th January, 2018)

Observed mainly clear sky with **no** rainfall during past four days. Maximum temperature range of 20.7 to 22.5 °C and minimum temperature range of 5.0 to 6.9 °C with mean relative humidity 85.5 % max and 44.3 % min was recorded in the past four days.

Weather forecast for next five days of Bishnupur (31st January to 4th February, 2018)

Likely to have no rainfall and clear sky upto Sunday. The maximum temp. 21-23 °C & minimum temp. 3-5 °C and relative humidity may reach up to 100 % (max RH) & 28 % (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	Seed collection and land preparation for nursery		<ul style="list-style-type: none"> - Use quality seeds of pre-kharif rice for sowing. Recommended variety: RCM 13 (90-105 days) or RCM 7 (110-120 days). - Seed rate:- transplanted crops: 50-60 kg/ha or broadcast (puddle field): 65-70 kg/ha or line planting : 30-40 kg/ha. - Prepare 700-800 m² area of rice nursery for transplanting of one hectare area. - Apply well decomposed FYM/ compost @ 1t/ 700 m² at the time of final leveling of nursery bed. - When seedlings are 4-5 cm tall (7-10 days of sowing), apply 10 kg Urea and 3.5 kg MOP per 700 m² as top dress along with 2 kg Carbofuran (3G) and spray Carbendazim 50% WP @ 1g/litres of water.
Rapeseed/ Mustard	Flowering to fruiting	Downy mildew, Powdery mildew, white rust & Alternaria blight	- Spray Garlic Bulb Extract (ST) @ 1% or Trichoderma harzianum.
Field Pea	Flowering/ fruiting to harvesting		- Retain early pods of selected plants for seeds.
Lentil/ Blackgram (late variety)	Flowering to fruiting	Aphid	- For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used.
		Powdery mildew & rust	Spray Neem Seed Kernel Extract at 5% concentration for powdery mildew and nimbecidin (0.3%) to control rust disease.
Rabi Maize	Vegetative		<ul style="list-style-type: none"> - Earthing-up of rabi maize sown intercropped with pea or potato may be done and apply irrigation at an interval of 10-15 days to maintain moisture status. - When the plant is knee high apply fertilizer @ 25 kg N/ha at the time of inter-culture operation.
Potato	Vegetative to tuber formation		- Give light irrigation if the soil is dry. Ensure that the soil loose enough for better tuber growth.
		Cut worm	Spray Carbaryl @ 30ml/ 15 litre of water against cut worm.
Seeds storage	Post harvest management		<p>For seed purpose store the seeds in RC-seed bins after proper drying and cleaning of seeds along with dry charcoal at 80:20. 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
Mango	Flowering		<ul style="list-style-type: none"> - Flower during 1st year of planting may be removed as it may suppress its corresponding growth that is essential in building up the young trees. - To protect from mango hopper, spray 800ml Malathion 50 EC or 700ml of Thiodan in 250 litres of water. - Paint the trunk of tree with Bordeaux paste (1:1:100) upto a height of 4-5 feet above the ground as prophylactic measure against diseases.
French bean	Land preparation and sowing		<ul style="list-style-type: none"> - Sowing of French bean may be done in prepared land. Seed rate for dwarf varieties like Pant Anupam & Arka Komal is 65kg/ha (spacing is 30x45 cm from seed to seed and row to row) and 25-30kg/ha for pole-type (spacing is 60x60cm with 2-3 seeds per hill). - Give light irrigation after 2-3 days of sowing.



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



Bhindi	Land preparation and sowing		Prepare land for sowing bhindi.
Cucurbits	Nursery raising		- Raise cucurbits like water-melon, cucumber, sponge gourd, etc. in poly-pouch and trays under polyhouse/ poly-tunnel. - Recommended varieties of water melon :- Sugar Baby, Madhavi-10, Madhuri and NS 295.
Onion	Vegetative to bulb formation initiation		- If the bulb formation stage has started then it must be checked that the soil is not too dry also care should be taken that the neck portion should be above the ground level.
Cole crops	Nursery raising		- Nursery for late crops may be raised.
Tomato	Nursery to transplanting		- Tomato nurseries should be raised under low cost polyhouse as the temperature is very low in open field. - Nursery bed of 0.75m x 4m may be prepared and mix Carbendazim @ 5g/ 3m ² area, keep the bed covered with gunny bag for at least 24 hrs. - Sow seeds @ 10g/ 3m ² area keep the bed covered with gunny bag. Seeds will germinate in 4-5 days.

Animal Sciences

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Duck)	All age groups	• Management	Protect animals/ birds from cold. Cover the wall with hessian cloth/ polythene sheet during night time. Provide Furavet Powder @ 1g/ 2 lit of drinking water and Vimeral @ 5 ml per lit of water. Provide external heat source such as “Meifu”/ chulhas or bulb. • Litter must be stirred frequently and aired every day.
		• Coccidiosis	• Give Amprolium @ 1 gm/ litre of drinking water for 5-7 days.
		• Parasitic	• Give Albendazole liquid @ 40 ml for 100 birds once only and half dose by next day is suggested.
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. • Take adequate care to prevent occurrence of Mastitis. • PPR immunization must be done once in every three years.
		• De-worming	• Administer Tolzan-F @ 2.5ml orally/ 50kg b. wt.
		• Management	• Avoid dampness to protect from Pneumonia. • Increase energy feed by 5%.
Pig	All age groups except the young ones	• Coccidial infection	• Ofloxacin/ Ornidazole (O ₂) tab twice daily for 5 days.
		• De-worming	• De-worm with Albendazole @ 7.5 mg/kg b.wt.
		• Vaccination	• Vaccinate against FMD and Swine Fever.
		• Skin disease	• Sprayer of Anti- <i>Psoroptic</i> may be used
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
		Mastitis	• Adequate care must be ensured for prevention of mastitis for the milch animals.

• Fodder cultivation: 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****30th January, 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 31st January to 4th February, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (26th to 29th January, 2018)

Observed mainly clear sky with **no** rainfall during past four days. Maximum temperature range of 20.7 to 22.5 °C and minimum temperature range of 5.0 to 6.9 °C with mean relative humidity 85.5 % max and 44.3 % min was recorded in the past four days.

Weather forecast for next five days of Chandel (31st January to 4th February, 2018)

Likely to have no rainfall and clear sky upto Sunday. The maximum temp. 19-21 °C & minimum temp. 2-4 °C and relative humidity may reach up to 98 % (max RH) & 35 % (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	Seed collection and land preparation for nursery		<ul style="list-style-type: none"> - Use quality seeds of pre-kharif rice for sowing. Recommended variety: RCM 13 (90-105 days) or RCM 7 (110-120 days). - Seed rate:- transplanted crops: 50-60 kg/ha or broadcast (puddle field): 65-70 kg/ha or line planting : 30-40 kg/ha. - Prepare 700-800 m² area of rice nursery for transplanting of one hectare area. - Apply well decomposed FYM/ compost @ 1t/ 700 m² at the time of final leveling of nursery bed. - When seedlings are 4-5 cm tall (7-10 days of sowing), apply 10 kg Urea and 3.5 kg MOP per 700 m² as top dress along with 2 kg Carbofuran (3G) and spray Carbendazim 50% WP @ 1g/litres of water.
Rapeseed/ Mustard	Flowering to fruiting	Downy mildew, Powdery mildew, white rust & Alternaria blight	- Spray Garlic Bulb Extract (ST) @ 1% or Trichoderma harzianum.
Field Pea	Flowering/ fruiting to harvesting		- Retain early pods of selected plants for seeds.
Lentil/ Blackgram (late variety)	Flowering to fruiting	Aphid	- For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used.
		Powdery mildew & rust	Spray Neem Seed Kernel Extract at 5% concentration for powdery mildew and nimbecidin (0.3%) to control rust disease.
Rabi Maize	Vegetative		<ul style="list-style-type: none"> - Earthing-up of rabi maize sown intercropped with pea or potato may be done and apply irrigation at an interval of 10-15 days to maintain moisture status. - When the plant is knee high apply fertilizer @ 25 kg N/ha at the time of inter-culture operation.
Potato	Vegetative to tuber formation		- Give light irrigation if the soil is dry. Ensure that the soil loose enough for better tuber growth.
		Cut worm	Spray Carbaryl @ 30ml/ 15 litre of water against cut worm.
Seeds storage	Post harvest management		<p>For seed purpose store the seeds in RC-seed bins after proper drying and cleaning of seeds along with dry charcoal at 80:20. 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
Mango	Flowering		<ul style="list-style-type: none"> - Flower during 1st year of planting may be removed as it may suppress its corresponding growth that is essential in building up the young trees. - To protect from mango hopper, spray 800ml Malathion 50 EC or 700ml of Thiodan in 250 litres of water. - Paint the trunk of tree with Bordeaux paste (1:1:100) upto a height of 4-5 feet above the ground as prophylactic measure against diseases.
French bean	Land preparation and sowing		<ul style="list-style-type: none"> - Sowing of French bean may be done in prepared land. Seed rate for dwarf varieties like Pant Anupam & Arka Komal is 65kg/ha (spacing is 30x45 cm from seed to seed and row to row) and 25-30kg/ha for pole-type (spacing is 60x60cm with 2-3 seeds per hill). - Give light irrigation after 2-3 days of sowing.



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



Bhindi	Land preparation and sowing		Prepare land for sowing bhindi.
Cucurbits	Nursery raising		- Raise cucurbits like water-melon, cucumber, sponge gourd, etc. in poly-pouch and trays under polyhouse/ poly-tunnel. - Recommended varieties of water melon :- Sugar Baby, Madhavi-10, Madhuri and NS 295.
Onion	Vegetative to bulb formation initiation		- If the bulb formation stage has started then it must be checked that the soil is not too dry also care should be taken that the neck portion should be above the ground level.
Cole crops	Nursery raising		- Nursery for late crops may be raised.
Tomato	Nursery to transplanting		- Tomato nurseries should be raised under low cost polyhouse as the temperature is very low in open field. - Nursery bed of 0.75m x 4m may be prepared and mix Carbendazim @ 5g/ 3m ² area, keep the bed covered with gunny bag for at least 24 hrs. - Sow seeds @ 10g/ 3m ² area keep the bed covered with gunny bag. Seeds will germinate in 4-5 days.

Animal Sciences

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Duck)	All age groups	• Management	Protect animals/ birds from cold. Cover the wall with hessian cloth/ polythene sheet during night time. Provide Furavet Powder @ 1g/ 2 lit of drinking water and Vimeral @ 5 ml per lit of water. Provide external heat source such as “Meifu”/ chulhas or bulb. • Litter must be stirred frequently and aired every day.
		• Coccidiosis	• Give Amprolium @ 1 gm/ litre of drinking water for 5-7 days.
		• Parasitic	• Give Albendazole liquid @ 40 ml for 100 birds once only and half dose by next day is suggested.
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. • Take adequate care to prevent occurrence of Mastitis. • PPR immunization must be done once in every three years.
		• De-worming	• Administer Tolzan-F @ 2.5ml orally/ 50kg b. wt.
		• Management	• Avoid dampness to protect from Pneumonia. • Increase energy feed by 5%.
Pig	All age groups except the young ones	• Coccidial infection	• Ofloxacin/ Ornidazole (O ₂) tab twice daily for 5 days.
		• De-worming	• De-worm with Albendazole @ 7.5 mg/kg b.wt.
		• Vaccination	• Vaccinate against FMD and Swine Fever.
		• Skin disease	• Sprayer of Anti- <i>Psoroptic</i> may be used
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
		Mastitis	• Adequate care must be ensured for prevention of mastitis for the milch animals.

• Fodder cultivation: 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****30th January, 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 31st January to 4th February, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (26th to 29th January, 2018)

Observed mainly clear sky with **no** rainfall during past four days. Maximum temperature range of 20.7 to 22.5 °C and minimum temperature range of 5.0 to 6.9 °C with mean relative humidity 85.5 % max and 44.3 % min was recorded in the past four days.

Weather forecast for next five days of Churachandpur (31st January to 4th February, 2018)

Likely to have no rainfall and clear sky upto Sunday. The maximum temp. 21-23 °C & minimum temp. 3-5 °C and relative humidity may reach up to 100 % (max RH) & 31 % (min RH). The average wind speed may be 4 km/hr.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Pre-kharif Rice	Seed collection and land preparation for nursery		<ul style="list-style-type: none"> - Use quality seeds of pre-kharif rice for sowing. Recommended variety: RCM 13 (90-105 days) or RCM 7 (110-120 days). - Seed rate:- transplanted crops: 50-60 kg/ha or broadcast (puddle field): 65-70 kg/ha or line planting : 30-40 kg/ha. - Prepare 700-800 m² area of rice nursery for transplanting of one hectare area. - Apply well decomposed FYM/ compost @ 1t/ 700 m² at the time of final leveling of nursery bed. - When seedlings are 4-5 cm tall (7-10 days of sowing), apply 10 kg Urea and 3.5 kg MOP per 700 m² as top dress along with 2 kg Carbofuran (3G) and spray Carbendazim 50% WP @ 1g/litres of water.
Rapeseed/ Mustard	Flowering to fruiting	Downy mildew, Powdery mildew, white rust & Alternaria blight	- Spray Garlic Bulb Extract (ST) @ 1% or Trichoderma harzianum.
Field Pea	Flowering/ fruiting to harvesting		- Retain early pods of selected plants for seeds.
Lentil/ Blackgram (late variety)	Flowering to fruiting	Aphid	- For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used.
		Powdery mildew & rust	Spray Neem Seed Kernel Extract at 5% concentration for powdery mildew and nimbecidin (0.3%) to control rust disease.
Rabi Maize	Vegetative		<ul style="list-style-type: none"> - Earthing-up of rabi maize sown intercropped with pea or potato may be done and apply irrigation at an interval of 10-15 days to maintain moisture status. - When the plant is knee high apply fertilizer @ 25 kg N/ha at the time of inter-culture operation.
Potato	Vegetative to tuber formation		- Give light irrigation if the soil is dry. Ensure that the soil loose enough for better tuber growth.
		Cut worm	Spray Carbaryl @ 30ml/ 15 litre of water against cut worm.
Seeds storage	Post harvest management		<p>For seed purpose store the seeds in RC-seed bins after proper drying and cleaning of seeds along with dry charcoal at 80:20. 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
Mango	Flowering		<ul style="list-style-type: none"> - Flower during 1st year of planting may be removed as it may suppress its corresponding growth that is essential in building up the young trees. - To protect from mango hopper, spray 800ml Malathion 50 EC or 700ml of Thiodan in 250 litres of water. - Paint the trunk of tree with Bordeaux paste (1:1:100) upto a height of 4-5 feet above the ground as prophylactic measure against diseases.
French bean	Land preparation and sowing		<ul style="list-style-type: none"> - Sowing of French bean may be done in prepared land. Seed rate for dwarf varieties like Pant Anupam & Arka Komal is 65kg/ha (spacing is 30x45 cm from seed to seed and row to row) and 25-30kg/ha for pole-type (spacing is 60x60cm with 2-3 seeds per hill). - Give light irrigation after 2-3 days of sowing.



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



Bhindi	Land preparation and sowing		Prepare land for sowing bhindi.
Cucurbits	Nursery raising		- Raise cucurbits like water-melon, cucumber, sponge gourd, etc. in poly-pouch and trays under polyhouse/ poly-tunnel. - Recommended varieties of water melon :- Sugar Baby, Madhavi-10, Madhuri and NS 295.
Onion	Vegetative to bulb formation initiation		- If the bulb formation stage has started then it must be checked that the soil is not too dry also care should be taken that the neck portion should be above the ground level.
Cole crops	Nursery raising		- Nursery for late crops may be raised.
Tomato	Nursery to transplanting		- Tomato nurseries should be raised under low cost polyhouse as the temperature is very low in open field. - Nursery bed of 0.75m x 4m may be prepared and mix Carbendazim @ 5g/ 3m ² area, keep the bed covered with gunny bag for at least 24 hrs. - Sow seeds @ 10g/ 3m ² area keep the bed covered with gunny bag. Seeds will germinate in 4-5 days.

Animal Sciences

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Duck)	All age groups	• Management	Protect animals/ birds from cold. Cover the wall with hessian cloth/ polythene sheet during night time. Provide Furavet Powder @ 1g/ 2 lit of drinking water and Vimeral @ 5 ml per lit of water. Provide external heat source such as “Meifu”/ chulhas or bulb. • Litter must be stirred frequently and aired every day.
		• Coccidiosis	• Give Amprolium @ 1 gm/ litre of drinking water for 5-7 days.
		• Parasitic	• Give Albendazole liquid @ 40 ml for 100 birds once only and half dose by next day is suggested.
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. • Take adequate care to prevent occurrence of Mastitis. • PPR immunization must be done once in every three years.
		• De-worming	• Administer Tolzan-F @ 2.5ml orally/ 50kg b. wt.
		• Management	• Avoid dampness to protect from Pneumonia. • Increase energy feed by 5%.
Pig	All age groups except the young ones	• Coccidial infection	• Ofloxacin/ Ornidazole (O ₂) tab twice daily for 5 days.
		• De-worming	• De-worm with Albendazole @ 7.5 mg/kg b.wt.
		• Vaccination	• Vaccinate against FMD and Swine Fever.
		• Skin disease	• Sprayer of Anti- <i>Psoroptic</i> may be used
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
		Mastitis	• Adequate care must be ensured for prevention of mastitis for the milch animals.

• Fodder cultivation: 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****30th January, 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 31st January to 4th February, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (26th to 29th January, 2018)

Observed mainly clear sky with **no** rainfall during past four days. Maximum temperature range of 20.7 to 22.5 °C and minimum temperature range of 5.0 to 6.9 °C with mean relative humidity 85.5 % max and 44.3 % min was recorded in the past four days.

Weather forecast for next five days of Imphal East (31st January to 4th February, 2018)

Likely to have no rainfall and clear sky upto Sunday. The maximum temp. 20-22 °C & minimum temp. 2-4 °C and relative humidity may reach up to 100 % (max RH) & 27 % (min RH). The average wind speed may be 0-3 km/hr.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Pre-kharif Rice	Seed collection and land preparation for nursery		<ul style="list-style-type: none"> - Use quality seeds of pre-kharif rice for sowing. Recommended variety: RCM 13 (90-105 days) or RCM 7 (110-120 days). - Seed rate:- transplanted crops: 50-60 kg/ha or broadcast (puddle field): 65-70 kg/ha or line planting : 30-40 kg/ha. - Prepare 700-800 m² area of rice nursery for transplanting of one hectare area. - Apply well decomposed FYM/ compost @ 1t/ 700 m² at the time of final leveling of nursery bed. - When seedlings are 4-5 cm tall (7-10 days of sowing), apply 10 kg Urea and 3.5 kg MOP per 700 m² as top dress along with 2 kg Carbofuran (3G) and spray Carbendazim 50% WP @ 1g/litres of water.
Rapeseed/ Mustard	Flowering to fruiting	Downy mildew, Powdery mildew, white rust & Alternaria blight	- Spray Garlic Bulb Extract (ST) @ 1% or Trichoderma harzianum.
Field Pea	Flowering/ fruiting to harvesting		- Retain early pods of selected plants for seeds.
Lentil/ Blackgram (late variety)	Flowering to fruiting	Aphid	- For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used.
		Powdery mildew & rust	Spray Neem Seed Kernel Extract at 5% concentration for powdery mildew and nimbecidin (0.3%) to control rust disease.
Rabi Maize	Vegetative		<ul style="list-style-type: none"> - Earthing-up of rabi maize sown intercropped with pea or potato may be done and apply irrigation at an interval of 10-15 days to maintain moisture status. - When the plant is knee high apply fertilizer @ 25 kg N/ha at the time of inter-culture operation.
Potato	Vegetative to tuber formation		- Give light irrigation if the soil is dry. Ensure that the soil loose enough for better tuber growth.
		Cut worm	Spray Carbaryl @ 30ml/ 15 litre of water against cut worm.
Seeds storage	Post harvest management		<p>For seed purpose store the seeds in RC-seed bins after proper drying and cleaning of seeds along with dry charcoal at 80:20. 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
Mango	Flowering		<ul style="list-style-type: none"> - Flower during 1st year of planting may be removed as it may suppress its corresponding growth that is essential in building up the young trees. - To protect from mango hopper, spray 800ml Malathion 50 EC or 700ml of Thiodan in 250 litres of water. - Paint the trunk of tree with Bordeaux paste (1:1:100) upto a height of 4-5 feet above the ground as prophylactic measure against diseases.
French bean	Land preparation and sowing		<ul style="list-style-type: none"> - Sowing of French bean may be done in prepared land. Seed rate for dwarf varieties like Pant Anupam & Arka Komal is 65kg/ha (spacing is 30x45 cm from seed to seed and row to row) and 25-30kg/ha for pole-type (spacing is 60x60cm with 2-3 seeds per hill). - Give light irrigation after 2-3 days of sowing.



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



Bhindi	Land preparation and sowing		Prepare land for sowing bhindi.
Cucurbits	Nursery raising		- Raise cucurbits like water-melon, cucumber, sponge gourd, etc. in poly-pouch and trays under polyhouse/ poly-tunnel. - Recommended varieties of water melon :- Sugar Baby, Madhavi-10, Madhuri and NS 295.
Onion	Vegetative to bulb formation initiation		- If the bulb formation stage has started then it must be checked that the soil is not too dry also care should be taken that the neck portion should be above the ground level.
Cole crops	Nursery raising		- Nursery for late crops may be raised.
Tomato	Nursery to transplanting		- Tomato nurseries should be raised under low cost polyhouse as the temperature is very low in open field. - Nursery bed of 0.75m x 4m may be prepared and mix Carbendazim @ 5g/ 3m ² area, keep the bed covered with gunny bag for at least 24 hrs. - Sow seeds @ 10g/ 3m ² area keep the bed covered with gunny bag. Seeds will germinate in 4-5 days.

Animal Sciences

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Duck)	All age groups	• Management	Protect animals/ birds from cold. Cover the wall with hessian cloth/ polythene sheet during night time. Provide Furavet Powder @ 1g/ 2 lit of drinking water and Vimeral @ 5 ml per lit of water. Provide external heat source such as “Meifu”/ chulhas or bulb. • Litter must be stirred frequently and aired every day.
		• Coccidiosis	• Give Amprolium @ 1 gm/ litre of drinking water for 5-7 days.
		• Parasitic	• Give Albendazole liquid @ 40 ml for 100 birds once only and half dose by next day is suggested.
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. • Take adequate care to prevent occurrence of Mastitis. • PPR immunization must be done once in every three years.
		• De-worming	• Administer Tolzan-F @ 2.5ml orally/ 50kg b. wt.
		• Management	• Avoid dampness to protect from Pneumonia. • Increase energy feed by 5%.
Pig	All age groups except the young ones	• Coccidial infection	• Ofloxacin/ Ornidazole (O ₂) tab twice daily for 5 days.
		• De-worming	• De-worm with Albendazole @7.5 mg/kg b.wt.
		• Vaccination	• Vaccinate against FMD and Swine Fever.
		• Skin disease	• Sprayer of Anti- <i>Psoroptic</i> may be used
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
		Mastitis	• Adequate care must be ensured for prevention of mastitis for the milch animals.

• Fodder cultivation: 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****30th January, 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 31st January to 4th February, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (26th to 29th January, 2018)

Observed mainly clear sky with **no** rainfall during past four days. Maximum temperature range of 20.7 to 22.5 °C and minimum temperature range of 5.0 to 6.9 °C with mean relative humidity 85.5 % max and 44.3 % min was recorded in the past four days.

Weather forecast for next five days of Imphal West (31st January to 4th February, 2018)

Likely to have no rainfall and clear sky upto Sunday. The maximum temp. 20-22 °C & minimum temp. 2-4 °C and relative humidity may reach up to 100 % (max RH) & 33 % (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	Seed collection and land preparation for nursery		<ul style="list-style-type: none"> - Use quality seeds of pre-kharif rice for sowing. Recommended variety: RCM 13 (90-105 days) or RCM 7 (110-120 days). - Seed rate:- transplanted crops: 50-60 kg/ha or broadcast (puddle field): 65-70 kg/ha or line planting : 30-40 kg/ha. - Prepare 700-800 m² area of rice nursery for transplanting of one hectare area. - Apply well decomposed FYM/ compost @ 1t/ 700 m² at the time of final leveling of nursery bed. - When seedlings are 4-5 cm tall (7-10 days of sowing), apply 10 kg Urea and 3.5 kg MOP per 700 m² as top dress along with 2 kg Carbofuran (3G) and spray Carbendazim 50% WP @ 1g/litres of water.
Rapeseed/ Mustard	Flowering to fruiting	Downy mildew, Powdery mildew, white rust & Alternaria blight	- Spray Garlic Bulb Extract (ST) @ 1% or Trichoderma harzianum.
Field Pea	Flowering/ fruiting to harvesting		- Retain early pods of selected plants for seeds.
Lentil/ Blackgram (late variety)	Flowering to fruiting	Aphid	- For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used.
		Powdery mildew & rust	Spray Neem Seed Kernel Extract at 5% concentration for powdery mildew and nimbecidin (0.3%) to control rust disease.
Rabi Maize	Vegetative		<ul style="list-style-type: none"> - Earthing-up of rabi maize sown intercropped with pea or potato may be done and apply irrigation at an interval of 10-15 days to maintain moisture status. - When the plant is knee high apply fertilizer @ 25 kg N/ha at the time of inter-culture operation.
Potato	Vegetative to tuber formation		- Give light irrigation if the soil is dry. Ensure that the soil loose enough for better tuber growth.
		Cut worm	Spray Carbaryl @ 30ml/ 15 litre of water against cut worm.
Seeds storage	Post harvest management		<p>For seed purpose store the seeds in RC-seed bins after proper drying and cleaning of seeds along with dry charcoal at 80:20. 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
Mango	Flowering		<ul style="list-style-type: none"> - Flower during 1st year of planting may be removed as it may suppress its corresponding growth that is essential in building up the young trees. - To protect from mango hopper, spray 800ml Malathion 50 EC or 700ml of Thiodan in 250 litres of water. - Paint the trunk of tree with Bordeaux paste (1:1:100) upto a height of 4-5 feet above the ground as prophylactic measure against diseases.
French bean	Land preparation and sowing		<ul style="list-style-type: none"> - Sowing of French bean may be done in prepared land. Seed rate for dwarf varieties like Pant Anupam & Arka Komal is 65kg/ha (spacing is 30x45 cm from seed to seed and row to row) and 25-30kg/ha for pole-type (spacing is 60x60cm with 2-3 seeds per hill). - Give light irrigation after 2-3 days of sowing.



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



Bhindi	Land preparation and sowing		Prepare land for sowing bhindi.
Cucurbits	Nursery raising		- Raise cucurbits like water-melon, cucumber, sponge gourd, etc. in poly-pouch and trays under polyhouse/ poly-tunnel. - Recommended varieties of water melon :- Sugar Baby, Madhavi-10, Madhuri and NS 295.
Onion	Vegetative to bulb formation initiation		- If the bulb formation stage has started then it must be checked that the soil is not too dry also care should be taken that the neck portion should be above the ground level.
Cole crops	Nursery raising		- Nursery for late crops may be raised.
Tomato	Nursery to transplanting		- Tomato nurseries should be raised under low cost polyhouse as the temperature is very low in open field. - Nursery bed of 0.75m x 4m may be prepared and mix Carbendazim @ 5g/ 3m ² area, keep the bed covered with gunny bag for at least 24 hrs. - Sow seeds @ 10g/ 3m ² area keep the bed covered with gunny bag. Seeds will germinate in 4-5 days.

Animal Sciences

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Duck)	All age groups	• Management	Protect animals/ birds from cold. Cover the wall with hessian cloth/ polythene sheet during night time. Provide Furavet Powder @ 1g/ 2 lit of drinking water and Vimeral @ 5 ml per lit of water. Provide external heat source such as “Meifu”/ chulhas or bulb. • Litter must be stirred frequently and aired every day.
		• Coccidiosis	• Give Amprolium @ 1 gm/ litre of drinking water for 5-7 days.
		• Parasitic	• Give Albendazole liquid @ 40 ml for 100 birds once only and half dose by next day is suggested.
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. • Take adequate care to prevent occurrence of Mastitis. • PPR immunization must be done once in every three years.
		• De-worming	• Administer Tolzan-F @ 2.5ml orally/ 50kg b. wt.
		• Management	• Avoid dampness to protect from Pneumonia. • Increase energy feed by 5%.
Pig	All age groups except the young ones	• Coccidial infection	• Ofloxacin/ Ornidazole (O ₂) tab twice daily for 5 days.
		• De-worming	• De-worm with Albendazole @ 7.5 mg/kg b.wt.
		• Vaccination	• Vaccinate against FMD and Swine Fever.
		• Skin disease	• Sprayer of Anti- <i>Psoroptic</i> may be used
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
		Mastitis	• Adequate care must be ensured for prevention of mastitis for the milch animals.

• Fodder cultivation: 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****30th January, 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 31st January to 4th February, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (26th to 29th January, 2018)

Observed mainly clear sky with **no** rainfall during past four days. Maximum temperature range of 20.7 to 22.5 °C and minimum temperature range of 5.0 to 6.9 °C with mean relative humidity 85.5 % max and 44.3 % min was recorded in the past four days.

Weather forecast for next five days of Senapati (31st January to 4th February, 2018)

Likely to have no rainfall and clear sky upto Sunday. The maximum temp. 18-20 °C & minimum temp. 1-3 °C and relative humidity may reach up to 100 % (max RH) & 30 % (min RH). The average wind speed may be 0-2 km/hr.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Pre-kharif Rice	Seed collection and land preparation for nursery		<ul style="list-style-type: none"> - Use quality seeds of pre-kharif rice for sowing. Recommended variety: RCM 13 (90-105 days) or RCM 7 (110-120 days). - Seed rate:- transplanted crops: 50-60 kg/ha or broadcast (puddle field): 65-70 kg/ha or line planting : 30-40 kg/ha. - Prepare 700-800 m² area of rice nursery for transplanting of one hectare area. - Apply well decomposed FYM/ compost @ 1t/ 700 m² at the time of final leveling of nursery bed. - When seedlings are 4-5 cm tall (7-10 days of sowing), apply 10 kg Urea and 3.5 kg MOP per 700 m² as top dress along with 2 kg Carbofuran (3G) and spray Carbendazim 50% WP @ 1g/litres of water.
Rapeseed/ Mustard	Flowering to fruiting	Downy mildew, Powdery mildew, white rust & Alternaria blight	- Spray Garlic Bulb Extract (ST) @ 1% or Trichoderma harzianum.
Field Pea	Flowering/ fruiting to harvesting		- Retain early pods of selected plants for seeds.
Lentil/ Blackgram (late variety)	Flowering to fruiting	Aphid	- For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used.
		Powdery mildew & rust	Spray Neem Seed Kernel Extract at 5% concentration for powdery mildew and nimbecidin (0.3%) to control rust disease.
Rabi Maize	Vegetative		<ul style="list-style-type: none"> - Earthing-up of rabi maize sown intercropped with pea or potato may be done and apply irrigation at an interval of 10-15 days to maintain moisture status. - When the plant is knee high apply fertilizer @ 25 kg N/ha at the time of inter-culture operation.
Seeds storage	Post harvest management		<p>For seed purpose store the seeds in RC-seed bins after proper drying and cleaning of seeds along with dry charcoal at 80:20. 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
Mango	Flowering		<ul style="list-style-type: none"> - Flower during 1st year of planting may be removed as it may suppress its corresponding growth that is essential in building up the young trees. - To protect from mango hopper, spray 800ml Malathion 50 EC or 700ml of Thiodan in 250 litres of water. - Paint the trunk of tree with Bordeaux paste (1:1:100) upto a height of 4-5 feet above the ground as prophylactic measure against diseases.
French bean	Land preparation and sowing		<ul style="list-style-type: none"> - Sowing of French bean may be done in prepared land. Seed rate for dwarf varieties like Pant Anupam & Arka Komal is 65kg/ha (spacing is 30x45 cm from seed to seed and row to row) and 25-30kg/ha for pole-type (spacing is 60x60cm with 2-3 seeds per hill). - Give light irrigation after 2-3 days of sowing.
Bhindi	Land preparation and sowing		Prepare land for sowing bhindi.



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



Cucurbits	Nursery raising		<ul style="list-style-type: none"> - Raise cucurbits like water-melon, cucumber, sponge gourd, etc. in poly-pouch and trays under polyhouse/ poly-tunnel. - Recommended varieties of water melon :- Sugar Baby, Madhavi-10, Madhuri and NS 295.
Onion	Vegetative to bulb formation initiation		<ul style="list-style-type: none"> - If the bulb formation stage has started then it must be checked that the soil is not too dry also care should be taken that the neck portion should be above the ground level.
Cole crops	Nursery raising		<ul style="list-style-type: none"> - Nursery for late crops may be raised.
Tomato	Nursery to transplanting		<ul style="list-style-type: none"> - Tomato nurseries should be raised under low cost polyhouse as the temperature is very low in open field. - Nursery bed of 0.75m x 4m may be prepared and mix Carbendazim @ 5g/ 3m² area, keep the bed covered with gunny bag for at least 24 hrs. - Sow seeds @ 10g/ 3m² area keep the bed covered with gunny bag. Seeds will germinate in 4-5 days.

Animal Sciences

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Duck)	All age groups	• Management	<ul style="list-style-type: none"> Protect animals/ birds from cold. Cover the wall with hessian cloth/ polythene sheet during night time. Provide Furavet Powder @ 1g/ 2 lit of drinking water and Vimeral @ 5 ml per lit of water. Provide external heat source such as “Meifu”/ chulhas or bulb. Litter must be stirred frequently and aired every day.
		• Coccidiosis	<ul style="list-style-type: none"> Give Amprolium @ 1 gm/ litre of drinking water for 5-7 days.
		• Parasitic	<ul style="list-style-type: none"> Give Albendazole liquid @ 40 ml for 100 birds once only and half dose by next day is suggested.
Sheep/ Goat	All age groups	• 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. Take adequate care to prevent occurrence of Mastitis. PPR immunization must be done once in every three years.
		• De-worming	<ul style="list-style-type: none"> Administer Tolzan-F @ 2.5ml orally/ 50kg b. wt.
		• Management	<ul style="list-style-type: none"> Avoid dampness to protect from Pneumonia. Increase energy feed by 5%.
Pig	All age groups except the young ones	• Coccidial infection	<ul style="list-style-type: none"> Ofloxacin/ Ornidazole (O₂) tab twice daily for 5 days.
		• De-worming	<ul style="list-style-type: none"> De-worm with Albendazole @ 7.5 mg/kg b.wt.
		• Vaccination	<ul style="list-style-type: none"> Vaccinate against FMD and Swine Fever.
		• Skin disease	<ul style="list-style-type: none"> Sprayer of Anti-<i>Psoroptic</i> may be used
Cattle	All age groups excepts the young ones	• 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.
		• 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.
		• 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
		Mastitis	<ul style="list-style-type: none"> Adequate care must be ensured for prevention of mastitis for the milch animals.

• Fodder cultivation: 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****30th January, 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 31st January to 4th February, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (26th to 29th January, 2018)

Observed mainly clear sky with **no** rainfall during past four days. Maximum temperature range of 20.7 to 22.5 °C and minimum temperature range of 5.0 to 6.9 °C with mean relative humidity 85.5 % max and 44.3 % min was recorded in the past four days.

Weather forecast for next five days of Tamenglong (31st January to 4th February, 2018)

Likely to have no rainfall and clear sky upto Sunday. The maximum temp. 18-20 °C & minimum temp. 2-4 °C and relative humidity may reach up to 97 % (max RH) & 33 % (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	Seed collection and land preparation for nursery		<ul style="list-style-type: none"> - Use quality seeds of pre-kharif rice for sowing. Recommended variety: RCM 13 (90-105 days) or RCM 7 (110-120 days). - Seed rate:- transplanted crops: 50-60 kg/ha or broadcast (puddle field): 65-70 kg/ha or line planting : 30-40 kg/ha. - Prepare 700-800 m² area of rice nursery for transplanting of one hectare area. - Apply well decomposed FYM/ compost @ 1t/ 700 m² at the time of final leveling of nursery bed. - When seedlings are 4-5 cm tall (7-10 days of sowing), apply 10 kg Urea and 3.5 kg MOP per 700 m² as top dress along with 2 kg Carbofuran (3G) and spray Carbendazim 50% WP @ 1g/litres of water.
Rapeseed/ Mustard	Flowering to fruiting	Downy mildew, Powdery mildew, white rust & Alternaria blight	- Spray Garlic Bulb Extract (ST) @ 1% or Trichoderma harzianum.
Field Pea	Flowering/ fruiting to harvesting		- Retain early pods of selected plants for seeds.
Lentil/ Blackgram (late variety)	Flowering to fruiting	Aphid	- For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used.
		Powdery mildew & rust	Spray Neem Seed Kernel Extract at 5% concentration for powdery mildew and nimbecidin (0.3%) to control rust disease.
Rabi Maize	Vegetative		<ul style="list-style-type: none"> - Earthing-up of rabi maize sown intercropped with pea or potato may be done and apply irrigation at an interval of 10-15 days to maintain moisture status. - When the plant is knee high apply fertilizer @ 25 kg N/ha at the time of inter-culture operation.
Potato	Vegetative to tuber formation		- Give light irrigation if the soil is dry. Ensure that the soil loose enough for better tuber growth.
		Cut worm	Spray Carbaryl @ 30ml/ 15 litre of water against cut worm.
Seeds storage	Post harvest management		<p>For seed purpose store the seeds in RC-seed bins after proper drying and cleaning of seeds along with dry charcoal at 80:20. 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
Mango	Flowering		<ul style="list-style-type: none"> - Flower during 1st year of planting may be removed as it may suppress its corresponding growth that is essential in building up the young trees. - To protect from mango hopper, spray 800ml Malathion 50 EC or 700ml of Thiodan in 250 litres of water. - Paint the trunk of tree with Bordeaux paste (1:1:100) upto a height of 4-5 feet above the ground as prophylactic measure against diseases.
French bean	Land preparation and sowing		<ul style="list-style-type: none"> - Sowing of French bean may be done in prepared land. Seed rate for dwarf varieties like Pant Anupam & Arka Komal is 65kg/ha (spacing is 30x45 cm from seed to seed and row to row) and 25-30kg/ha for pole-type (spacing is 60x60cm with 2-3 seeds per hill). - Give light irrigation after 2-3 days of sowing.



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



Bhindi	Land preparation and sowing		Prepare land for sowing bhindi.
Cucurbits	Nursery raising		- Raise cucurbits like water-melon, cucumber, sponge gourd, etc. in poly-pouch and trays under polyhouse/ poly-tunnel. - Recommended varieties of water melon :- Sugar Baby, Madhavi-10, Madhuri and NS 295.
Onion	Vegetative to bulb formation initiation		- If the bulb formation stage has started then it must be checked that the soil is not too dry also care should be taken that the neck portion should be above the ground level.
Cole crops	Nursery raising		- Nursery for late crops may be raised.
Tomato	Nursery to transplanting		- Tomato nurseries should be raised under low cost polyhouse as the temperature is very low in open field. - Nursery bed of 0.75m x 4m may be prepared and mix Carbendazim @ 5g/ 3m ² area, keep the bed covered with gunny bag for at least 24 hrs. - Sow seeds @ 10g/ 3m ² area keep the bed covered with gunny bag. Seeds will germinate in 4-5 days.

Animal Sciences

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Duck)	All age groups	• Management	Protect animals/ birds from cold. Cover the wall with hessian cloth/ polythene sheet during night time. Provide Furavet Powder @ 1g/ 2 lit of drinking water and Vimeral @ 5 ml per lit of water. Provide external heat source such as “Meifu”/ chulhas or bulb. • Litter must be stirred frequently and aired every day.
		• Coccidiosis	• Give Amprolium @ 1 gm/ litre of drinking water for 5-7 days.
		• Parasitic	• Give Albendazole liquid @ 40 ml for 100 birds once only and half dose by next day is suggested.
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. • Take adequate care to prevent occurrence of Mastitis. • PPR immunization must be done once in every three years.
		• De-worming	• Administer Tolzan-F @ 2.5ml orally/ 50kg b. wt.
		• Management	• Avoid dampness to protect from Pneumonia. • Increase energy feed by 5%.
Pig	All age groups except the young ones	• Coccidial infection	• Ofloxacin/ Ornidazole (O ₂) tab twice daily for 5 days.
		• De-worming	• De-worm with Albendazole @ 7.5 mg/kg b.wt.
		• Vaccination	• Vaccinate against FMD and Swine Fever.
		• Skin disease	• Sprayer of Anti- <i>Psoroptic</i> may be used
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
		Mastitis	• Adequate care must be ensured for prevention of mastitis for the milch animals.

• Fodder cultivation: 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****30th January, 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 31st January to 4th February, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (26th to 29th January, 2018)

Observed mainly clear sky with **no** rainfall during past four days. Maximum temperature range of 20.7 to 22.5 °C and minimum temperature range of 5.0 to 6.9 °C with mean relative humidity 85.5 % max and 44.3 % min was recorded in the past four days.

Weather forecast for next five days of Thoubal (31st January to 4th February, 2018)

Likely to have no rainfall and clear sky upto Sunday. The maximum temp. 21-23 °C & minimum temp. 2-5 °C and relative humidity may reach up to 100 % (max RH) & 30 % (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	Seed collection and land preparation for nursery		<ul style="list-style-type: none"> - Use quality seeds of pre-kharif rice for sowing. Recommended variety: RCM 13 (90-105 days) or RCM 7 (110-120 days). - Seed rate:- transplanted crops: 50-60 kg/ha or broadcast (puddle field): 65-70 kg/ha or line planting : 30-40 kg/ha. - Prepare 700-800 m² area of rice nursery for transplanting of one hectare area. - Apply well decomposed FYM/ compost @ 1t/ 700 m² at the time of final leveling of nursery bed. - When seedlings are 4-5 cm tall (7-10 days of sowing), apply 10 kg Urea and 3.5 kg MOP per 700 m² as top dress along with 2 kg Carbofuran (3G) and spray Carbendazim 50% WP @ 1g/litres of water.
Rapeseed/ Mustard	Flowering to fruiting	Downy mildew, Powdery mildew, white rust & Alternaria blight	- Spray Garlic Bulb Extract (ST) @ 1% or Trichoderma harzianum.
Field Pea	Flowering/ fruiting to harvesting		- Retain early pods of selected plants for seeds.
Lentil/ Blackgram (late variety)	Flowering to fruiting	Aphid	- For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used.
		Powdery mildew & rust	Spray Neem Seed Kernel Extract at 5% concentration for powdery mildew and nimbecidin (0.3%) to control rust disease.
Rabi Maize	Vegetative		<ul style="list-style-type: none"> - Earthing-up of rabi maize sown intercropped with pea or potato may be done and apply irrigation at an interval of 10-15 days to maintain moisture status. - When the plant is knee high apply fertilizer @ 25 kg N/ha at the time of inter-culture operation.
Potato	Vegetative to tuber formation		- Give light irrigation if the soil is dry. Ensure that the soil loose enough for better tuber growth.
		Cut worm	Spray Carbaryl @ 30ml/ 15 litre of water against cut worm.
Seeds storage	Post harvest management		<p>For seed purpose store the seeds in RC-seed bins after proper drying and cleaning of seeds along with dry charcoal at 80:20. 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
Mango	Flowering		<ul style="list-style-type: none"> - Flower during 1st year of planting may be removed as it may suppress its corresponding growth that is essential in building up the young trees. - To protect from mango hopper, spray 800ml Malathion 50 EC or 700ml of Thiodan in 250 litres of water. - Paint the trunk of tree with Bordeaux paste (1:1:100) upto a height of 4-5 feet above the ground as prophylactic measure against diseases.
French bean	Land preparation and sowing		<ul style="list-style-type: none"> - Sowing of French bean may be done in prepared land. Seed rate for dwarf varieties like Pant Anupam & Arka Komal is 65kg/ha (spacing is 30x45 cm from seed to seed and row to row) and 25-30kg/ha for pole-type (spacing is 60x60cm with 2-3 seeds per hill). - Give light irrigation after 2-3 days of sowing.



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



Bhindi	Land preparation and sowing		Prepare land for sowing bhindi.
Cucurbits	Nursery raising		- Raise cucurbits like water-melon, cucumber, sponge gourd, etc. in poly-pouch and trays under polyhouse/ poly-tunnel. - Recommended varieties of water melon :- Sugar Baby, Madhavi-10, Madhuri and NS 295.
Onion	Vegetative to bulb formation initiation		- If the bulb formation stage has started then it must be checked that the soil is not too dry also care should be taken that the neck portion should be above the ground level.
Cole crops	Nursery raising		- Nursery for late crops may be raised.
Tomato	Nursery to transplanting		- Tomato nurseries should be raised under low cost polyhouse as the temperature is very low in open field. - Nursery bed of 0.75m x 4m may be prepared and mix Carbendazim @ 5g/ 3m ² area, keep the bed covered with gunny bag for at least 24 hrs. - Sow seeds @ 10g/ 3m ² area keep the bed covered with gunny bag. Seeds will germinate in 4-5 days.

Animal Sciences

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Duck)	All age groups	• Management	Protect animals/ birds from cold. Cover the wall with hessian cloth/ polythene sheet during night time. Provide Furavet Powder @ 1g/ 2 lit of drinking water and Vimeral @ 5 ml per lit of water. Provide external heat source such as “Meifu”/ chulhas or bulb. • Litter must be stirred frequently and aired every day.
		• Coccidiosis	• Give Amprolium @ 1 gm/ litre of drinking water for 5-7 days.
		• Parasitic	• Give Albendazole liquid @ 40 ml for 100 birds once only and half dose by next day is suggested.
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. • Take adequate care to prevent occurrence of Mastitis. • PPR immunization must be done once in every three years.
		• De-worming	• Administer Tolzan-F @ 2.5ml orally/ 50kg b. wt.
		• Management	• Avoid dampness to protect from Pneumonia. • Increase energy feed by 5%.
Pig	All age groups except the young ones	• Coccidial infection	• Ofloxacin/ Ornidazole (O ₂) tab twice daily for 5 days.
		• De-worming	• De-worm with Albendazole @ 7.5 mg/kg b.wt.
		• Vaccination	• Vaccinate against FMD and Swine Fever.
		• Skin disease	• Sprayer of Anti- <i>Psoroptic</i> may be used
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
		Mastitis	• Adequate care must be ensured for prevention of mastitis for the milch animals.

• Fodder cultivation: 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****30th January, 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 31st January to 4th February, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (26th to 29th January, 2018)

Observed mainly clear sky with **no** rainfall during past four days. Maximum temperature range of 20.7 to 22.5 °C and minimum temperature range of 5.0 to 6.9 °C with mean relative humidity 85.5 % max and 44.3 % min was recorded in the past four days.

Weather forecast for next five days of Ukhrul (31st January to 4th February, 2018)

Likely to have no rainfall and clear sky upto Sunday. The maximum temp. 18-20 °C & minimum temp. 1-3 °C and relative humidity may reach up to 99 % (max RH) & 36 % (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	Seed collection and land preparation for nursery		<ul style="list-style-type: none"> - Use quality seeds of pre-kharif rice for sowing. Recommended variety: RCM 13 (90-105 days) or RCM 7 (110-120 days). - Seed rate:- transplanted crops: 50-60 kg/ha or broadcast (puddle field): 65-70 kg/ha or line planting : 30-40 kg/ha. - Prepare 700-800 m² area of rice nursery for transplanting of one hectare area. - Apply well decomposed FYM/ compost @ 1t/ 700 m² at the time of final leveling of nursery bed. - When seedlings are 4-5 cm tall (7-10 days of sowing), apply 10 kg Urea and 3.5 kg MOP per 700 m² as top dress along with 2 kg Carbofuran (3G) and spray Carbendazim 50% WP @ 1g/litres of water.
Rapeseed/ Mustard	Flowering to fruiting	Downy mildew, Powdery mildew, white rust & Alternaria blight	- Spray Garlic Bulb Extract (ST) @ 1% or Trichoderma harzianum.
Field Pea	Flowering/ fruiting to harvesting		- Retain early pods of selected plants for seeds.
Lentil/ Blackgram (late variety)	Flowering to fruiting	Aphid	- For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used.
		Powdery mildew & rust	Spray Neem Seed Kernel Extract at 5% concentration for powdery mildew and nimbecidin (0.3%) to control rust disease.
Rabi Maize	Vegetative		<ul style="list-style-type: none"> - Earthing-up of rabi maize sown intercropped with pea or potato may be done and apply irrigation at an interval of 10-15 days to maintain moisture status. - When the plant is knee high apply fertilizer @ 25 kg N/ha at the time of inter-culture operation.
Seeds storage	Post harvest management		<p>For seed purpose store the seeds in RC-seed bins after proper drying and cleaning of seeds along with dry charcoal at 80:20. 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
Mango	Flowering		<ul style="list-style-type: none"> - Flower during 1st year of planting may be removed as it may suppress its corresponding growth that is essential in building up the young trees. - To protect from mango hopper, spray 800ml Malathion 50 EC or 700ml of Thiodan in 250 litres of water. - Paint the trunk of tree with Bordeaux paste (1:1:100) upto a height of 4-5 feet above the ground as prophylactic measure against diseases.
French bean	Land preparation and sowing		<ul style="list-style-type: none"> - Sowing of French bean may be done in prepared land. Seed rate for dwarf varieties like Pant Anupam & Arka Komal is 65kg/ha (spacing is 30x45 cm from seed to seed and row to row) and 25-30kg/ha for pole-type (spacing is 60x60cm with 2-3 seeds per hill). - Give light irrigation after 2-3 days of sowing.
Bhindi	Land preparation and sowing		Prepare land for sowing bhindi.



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



Cucurbits	Nursery raising		<ul style="list-style-type: none"> - Raise cucurbits like water-melon, cucumber, sponge gourd, etc. in poly-pouch and trays under polyhouse/ poly-tunnel. - Recommended varieties of water melon :- Sugar Baby, Madhavi-10, Madhuri and NS 295.
Onion	Vegetative to bulb formation initiation		<ul style="list-style-type: none"> - If the bulb formation stage has started then it must be checked that the soil is not too dry also care should be taken that the neck portion should be above the ground level.
Cole crops	Nursery raising		<ul style="list-style-type: none"> - Nursery for late crops may be raised.
Tomato	Nursery to transplanting		<ul style="list-style-type: none"> - Tomato nurseries should be raised under low cost polyhouse as the temperature is very low in open field. - Nursery bed of 0.75m x 4m may be prepared and mix Carbendazim @ 5g/ 3m² area, keep the bed covered with gunny bag for at least 24 hrs. - Sow seeds @ 10g/ 3m² area keep the bed covered with gunny bag. Seeds will germinate in 4-5 days.

Animal Sciences

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Duck)	All age groups	• Management	<ul style="list-style-type: none"> Protect animals/ birds from cold. Cover the wall with hessian cloth/ polythene sheet during night time. Provide Furavet Powder @ 1g/ 2 lit of drinking water and Vimeral @ 5 ml per lit of water. Provide external heat source such as “Meifu”/ chulhas or bulb. Litter must be stirred frequently and aired every day.
		• Coccidiosis	<ul style="list-style-type: none"> Give Amprolium @ 1 gm/ litre of drinking water for 5-7 days.
		• Parasitic	<ul style="list-style-type: none"> Give Albendazole liquid @ 40 ml for 100 birds once only and half dose by next day is suggested.
Sheep/ Goat	All age groups	• 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. Take adequate care to prevent occurrence of Mastitis. PPR immunization must be done once in every three years.
		• De-worming	<ul style="list-style-type: none"> Administer Tolzan-F @ 2.5ml orally/ 50kg b. wt.
		• Management	<ul style="list-style-type: none"> Avoid dampness to protect from Pneumonia. Increase energy feed by 5%.
Pig	All age groups except the young ones	• Coccidial infection	<ul style="list-style-type: none"> Ofloxacin/ Ornidazole (O₂) tab twice daily for 5 days.
		• De-worming	<ul style="list-style-type: none"> De-worm with Albendazole @ 7.5 mg/kg b.wt.
		• Vaccination	<ul style="list-style-type: none"> Vaccinate against FMD and Swine Fever.
		• Skin disease	<ul style="list-style-type: none"> Sprayer of Anti-<i>Psoroptic</i> may be used
Cattle	All age groups excepts the young ones	• 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.
		• 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.
		• 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
		Mastitis	<ul style="list-style-type: none"> Adequate care must be ensured for prevention of mastitis for the milch animals.

• Fodder cultivation: Oat crop may be sown immediately.

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