



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

**MANIPUR BULLETIN****19th 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 20th to 24th January, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (16th to 18th January, 2018)

Observed mainly clear sky but partly cloudy to overcast from 16th afternoon to 17th Jan with **no** rainfall during past three days. Maximum temperature range of 22.7 to 22.9 °C and minimum temperature range of 6.7 to 9.6 °C with mean relative humidity 90 % max and 52.7 % min was recorded in the past three days.

Weather forecast for next five days of Bishnupur (20th to 24th January, 2018)

Likely to have dense fog at isolated places during morning hours and clear sky during afternoon hours upto Wednesday. The maximum temp. 25-26 °C & minimum temp. 9-10 °C and relative humidity may reach up to 94% (max RH) & 37% (min RH). The average wind speed may be 0-2 km/hr.

<i>Field Crops</i>			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Pre-kharif Rice	Seed collection and land preparation for nursery		- Procure disease free and well filled quality seeds of pre-kharif rice for sowing. Recommended variety: RCM 12 - Land preparation for raising rice nursery may be started.
Rapeseed/ Mustard	Flowering to fruiting	Aphid	- Insecticide sprays must be given during afternoon hours only. - For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used. If the infestation is severe, then spray a systemic insecticide i.e. dimethoate once.
		Downy mildew, Powdery mildew, white rust & Alternaria blight	- Spray Redomil MZ 72 WP @ 2g/ litre after 50-60 days of sowing or spray Garlic Bulb Extract (ST) @ 1% or Trichoderma harzianum.
Field Pea	Flowering to fruiting		- 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 nimbicidin (0.3%) to control rust disease.
Rabi Maize	Vegetative		- Light irrigation may be given to keep soil moist if the soil is dry.
Potato	Vegetative to tuber formation		- Give light irrigation if the soil is dry. Ensure that the soil loose enough for better tuber growth.
		Thrips	Spraying with Tracer (spinosad) 48 SC @ 300 ml/ha or 0.02% phosphamidon, 0.03% dimethoate, methyl demeton or thiometon control the pest effectively.
		Cut worm	Spray Carbaryl @ 30ml/ 15 litre of water against cut worm.
Seeds storage	Post harvest management		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. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.

Horticulture Crops

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
French bean	Land preparation and sowing		- 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.
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		- Apply 60kg Urea, 62 Kg SSP and 25 kg MOP as basal dose and apply 60kg Urea/ sangam after 30-35 days after transplanting.
Cole crops	Nursery raising		- Nursery for late crops may be raised.
Citrus	For nursery	Leaf Minor	- Spray Monocrotophos @ 0.25-0.5ml/ lit water depending on the age of nursery.



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



		Leaf eating caterpillar, thrips & mite.	- Spray Confidor @ 0.5 ml/ lit of water.
	For grown up trees	Powdery mildew	If powdery mildew is seen in the orchard, harvest mature fruits and spray Bayleton @7 g / 15 lit of water.
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 safe 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.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Fries/ fingerlings/ brooders	Pond and water	Remove aquatic weeds. Maintain minimum depth of 1.5 – 2.0 m. Apply Agri-Lime in brooder pond at small quantity at an interval of 30 days regularly.
		Feed	Provide feed 1-2 times @ 2 % body weight per day.
		Fish	- Male and female brooders should be stock in separate ponds for early breeding programs. - harvesting of fish may be done in area where water availability is low.

(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****19th 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 20th to 24th January, 2018 as below:

<p>Significant past weather for the preceding bi-weekly of Imphal - West (16th to 18th January, 2018) Observed mainly clear sky but partly cloudy to overcast from 16th afternoon to 17th Jan with no rainfall during past three days. Maximum temperature range of 22.7 to 22.9 °C and minimum temperature range of 6.7 to 9.6 °C with mean relative humidity 90 % max and 52.7 % min was recorded in the past three days.</p>	<p>Weather forecast for next five days of Chandel (20th to 24th January, 2018) Likely to have dense fog at isolated places during morning hours and clear sky during afternoon hours upto Wednesday. The maximum temp. 22-23 °C & minimum temp. 6-7 °C and relative humidity may reach up to 91% (max RH) & 47% (min RH). The average wind speed may be 3 km/hr.</p>
--	--

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Pre-kharif Rice	Seed collection and land preparation for nursery		- Procure disease free and well filled quality seeds of pre-kharif rice for sowing. Recommended variety: RCM 12 - Land preparation for raising rice nursery may be started.
Rapeseed/ Mustard	Flowering to fruiting	Aphid	- Insecticide sprays must be given during afternoon hours only. - For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used. If the infestation is severe, then spray a systemic insecticide i.e. dimethoate once.
		Downy mildew, Powdery mildew, white rust & Alternaria blight	- Spray Redomil MZ 72 WP @ 2g/ litre after 50-60 days of sowing or spray Garlic Bulb Extract (ST) @ 1% or Trichoderma harzianum.
Field Pea	Flowering to fruiting		- 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 nimbicidin (0.3%) to control rust disease.
Rabi Maize	Vegetative		- Light irrigation may be given to keep soil moist if the soil is dry.
Potato	Vegetative to tuber formation		- Give light irrigation if the soil is dry. Ensure that the soil loose enough for better tuber growth.
		Thrips	Spraying with Tracer (spinosad) 48 SC @ 300 ml/ha or 0.02% phosphamidon, 0.03% dimethoate, methyl demeton or thiometon control the pest effectively.
		Cut worm	Spray Carbaryl @ 30ml/ 15 litre of water against cut worm.
Seeds storage	Post harvest management		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. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.

Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
French bean	Land preparation and sowing		- 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.
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		- Apply 60kg Urea, 62 Kg SSP and 25 kg MOP as basal dose and apply 60kg Urea/ sangam after 30-35 days after transplanting.
Cole crops	Nursery raising		- Nursery for late crops may be raised.
Citrus	For nursery	Leaf Minor	- Spray Monocrotophos @ 0.25-0.5ml/ lit water depending on the age of nursery.



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



		Leaf eating caterpillar, thrips & mite.	- Spray Confidor @ 0.5 ml/ lit of water.
	For grown up trees	Powdery mildew	If powdery mildew is seen in the orchard, harvest mature fruits and spray Bayleton @7 g / 15 lit of water.
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 safe 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.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Fries/ fingerlings/ brooders	Pond and water	Remove aquatic weeds. Maintain minimum depth of 1.5 – 2.0 m. Apply Agri-Lime in brooder pond at small quantity at an interval of 30 days regularly.
		Feed	Provide feed 1-2 times @ 2 % body weight per day.
		Fish	- Male and female brooders should be stock in separate ponds for early breeding programs. - harvesting of fish may be done in area where water availability is low.

(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

19th 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 20th to 24th January, 2018 as below:

<p>Significant past weather for the preceding bi-weekly of Imphal - West (16th to 18th January, 2018) Observed mainly clear sky but partly cloudy to overcast from 16th afternoon to 17th Jan with no rainfall during past three days. Maximum temperature range of 22.7 to 22.9 °C and minimum temperature range of 6.7 to 9.6 °C with mean relative humidity 90 % max and 52.7 % min was recorded in the past three days.</p>	<p>Weather forecast for next five days of Churachandpur (20th to 24th January, 2018) Likely to have dense fog at isolated places during morning hours and clear sky during afternoon hours upto Wednesday. The maximum temp. 23-24 °C & minimum temp. 7-8 °C and relative humidity may reach up to 94% (max RH) & 39% (min RH). The average wind speed may be 2-4 km/hr.</p>
--	--

<i>Field Crops</i>			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Pre-kharif Rice	Seed collection and land preparation for nursery		- Procure disease free and well filled quality seeds of pre-kharif rice for sowing. Recommended variety: RCM 12 - Land preparation for raising rice nursery may be started.
Rapeseed/ Mustard	Flowering to fruiting	Aphid	- Insecticide sprays must be given during afternoon hours only. - For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used. If the infestation is severe, then spray a systemic insecticide i.e. dimethoate once.
		Downy mildew, Powdery mildew, white rust & Alternaria blight	- Spray Redomil MZ 72 WP @ 2g/ litre after 50-60 days of sowing or spray Garlic Bulb Extract (ST) @ 1% or Trichoderma harzianum.
Field Pea	Flowering to fruiting		- 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 nimbicidin (0.3%) to control rust disease.
Rabi Maize	Vegetative		- Light irrigation may be given to keep soil moist if the soil is dry.
Potato	Vegetative to tuber formation		- Give light irrigation if the soil is dry. Ensure that the soil loose enough for better tuber growth.
		Thrips	Spraying with Tracer (spinosad) 48 SC @ 300 ml/ha or 0.02% phosphamidon, 0.03% dimethoate, methyl demeton or thiometon control the pest effectively.
		Cut worm	Spray Carbaryl @ 30ml/ 15 litre of water against cut worm.
Seeds storage	Post harvest management		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. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.

<i>Horticulture Crops</i>			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
French bean	Land preparation and sowing		- 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.
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		- Apply 60kg Urea, 62 Kg SSP and 25 kg MOP as basal dose and apply 60kg Urea/ sangam after 30-35 days after transplanting.
Cole crops	Nursery raising		- Nursery for late crops may be raised.
Citrus	For nursery	Leaf Minor	- Spray Monocrotophos @ 0.25-0.5ml/ lit water depending on the age of nursery.



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



		Leaf eating caterpillar, thrips & mite.	- Spray Confidor @ 0.5 ml/ lit of water.
	For grown up trees	Powdery mildew	If powdery mildew is seen in the orchard, harvest mature fruits and spray Bayleton @7 g / 15 lit of water.
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 safe 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.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Fries/ fingerlings/ brooders	Pond and water	Remove aquatic weeds. Maintain minimum depth of 1.5 – 2.0 m. Apply Agri-Lime in brooder pond at small quantity at an interval of 30 days regularly.
		Feed	Provide feed 1-2 times @ 2 % body weight per day.
		Fish	- Male and female brooders should be stock in separate ponds for early breeding programs. - harvesting of fish may be done in area where water availability is low.

(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****19th 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 20th to 24th January, 2018 as below:

<p>Significant past weather for the preceding bi-weekly of Imphal - West (16th to 18th January, 2018) Observed mainly clear sky but partly cloudy to overcast from 16th afternoon to 17th Jan with no rainfall during past three days. Maximum temperature range of 22.7 to 22.9 °C and minimum temperature range of 6.7 to 9.6 °C with mean relative humidity 90 % max and 52.7 % min was recorded in the past three days.</p>	<p>Weather forecast for next five days of Imphal East (20th to 24th January, 2018) Likely to have dense fog at isolated places during morning hours and clear sky during afternoon hours upto Wednesday. The maximum temp. 23-24 °C & minimum temp. 7-8 °C and relative humidity may reach up to 94% (max RH) & 39% (min RH). The average wind speed may be 2-4 km/hr.</p>
--	--

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Pre-kharif Rice	Seed collection and land preparation for nursery		- Procure disease free and well filled quality seeds of pre-kharif rice for sowing. Recommended variety: RCM 12 - Land preparation for raising rice nursery may be started.
Rapeseed/ Mustard	Flowering to fruiting	Aphid	- Insecticide sprays must be given during afternoon hours only. - For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used. If the infestation is severe, then spray a systemic insecticide i.e. dimethoate once.
		Downy mildew, Powdery mildew, white rust & Alternaria blight	- Spray Redomil MZ 72 WP @ 2g/ litre after 50-60 days of sowing or spray Garlic Bulb Extract (ST) @ 1% or Trichoderma harzianum.
Field Pea	Flowering to fruiting		- 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 nimbicidin (0.3%) to control rust disease.
Rabi Maize	Vegetative		- Light irrigation may be given to keep soil moist if the soil is dry.
Potato	Vegetative to tuber formation		- Give light irrigation if the soil is dry. Ensure that the soil loose enough for better tuber growth.
		Thrips	Spraying with Tracer (spinosad) 48 SC @ 300 ml/ha or 0.02% phosphamidon, 0.03% dimethoate, methyl demeton or thiometon control the pest effectively.
		Cut worm	Spray Carbaryl @ 30ml/ 15 litre of water against cut worm.
Seeds storage	Post harvest management		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. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.

Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
French bean	Land preparation and sowing		- 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.
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		- Apply 60kg Urea, 62 Kg SSP and 25 kg MOP as basal dose and apply 60kg Urea/ sangam after 30-35 days after transplanting.
Cole crops	Nursery raising		- Nursery for late crops may be raised.
Citrus	For nursery	Leaf Minor	- Spray Monocrotophos @ 0.25-0.5ml/ lit water depending on the age of nursery.



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



		Leaf eating caterpillar, thrips & mite.	- Spray Confidor @ 0.5 ml/ lit of water.
	For grown up trees	Powdery mildew	If powdery mildew is seen in the orchard, harvest mature fruits and spray Bayleton @7 g / 15 lit of water.
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 safe 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.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Fries/ fingerlings/ brooders	Pond and water	Remove aquatic weeds. Maintain minimum depth of 1.5 – 2.0 m. Apply Agri-Lime in brooder pond at small quantity at an interval of 30 days regularly.
		Feed	Provide feed 1-2 times @ 2 % body weight per day.
		Fish	- Male and female brooders should be stock in separate ponds for early breeding programs. - harvesting of fish may be done in area where water availability is low.

(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****19th 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 20th to 24th January, 2018 as below:

<p>Significant past weather for the preceding bi-weekly of Imphal - West (16th to 18th January, 2018) Observed mainly clear sky but partly cloudy to overcast from 16th afternoon to 17th Jan with no rainfall during past three days. Maximum temperature range of 22.7 to 22.9 °C and minimum temperature range of 6.7 to 9.6 °C with mean relative humidity 90 % max and 52.7 % min was recorded in the past three days.</p>	<p>Weather forecast for next five days of Imphal West (20th to 24th January, 2018) Likely to have dense fog at isolated places during morning hours and clear sky during afternoon hours upto Wednesday. The maximum temp. 23-24 °C & minimum temp. 7-8 °C and relative humidity may reach up to 94% (max RH) & 39% (min RH). The average wind speed may be 2-4 km/hr.</p>
--	--

<i>Field Crops</i>			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Pre-kharif Rice	Seed collection and land preparation for nursery		- Procure disease free and well filled quality seeds of pre-kharif rice for sowing. Recommended variety: RCM 12 - Land preparation for raising rice nursery may be started.
Rapeseed/ Mustard	Flowering to fruiting	Aphid	- Insecticide sprays must be given during afternoon hours only. - For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used. If the infestation is severe, then spray a systemic insecticide i.e. dimethoate once.
		Downy mildew, Powdery mildew, white rust & Alternaria blight	- Spray Redomil MZ 72 WP @ 2g/ litre after 50-60 days of sowing or spray Garlic Bulb Extract (ST) @ 1% or Trichoderma harzianum.
Field Pea	Flowering to fruiting		- 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 nimbicidin (0.3%) to control rust disease.
Rabi Maize	Vegetative		- Light irrigation may be given to keep soil moist if the soil is dry.
Potato	Vegetative to tuber formation		- Give light irrigation if the soil is dry. Ensure that the soil loose enough for better tuber growth.
		Thrips	Spraying with Tracer (spinosad) 48 SC @ 300 ml/ha or 0.02% phosphamidon, 0.03% dimethoate, methyl demeton or thiometon control the pest effectively.
		Cut worm	Spray Carbaryl @ 30ml/ 15 litre of water against cut worm.
Seeds storage	Post harvest management		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. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.

<i>Horticulture Crops</i>			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
French bean	Land preparation and sowing		- 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.
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		- Apply 60kg Urea, 62 Kg SSP and 25 kg MOP as basal dose and apply 60kg Urea/ sangam after 30-35 days after transplanting.
Cole crops	Nursery raising		- Nursery for late crops may be raised.
Citrus	For nursery	Leaf Minor	- Spray Monocrotophos @ 0.25-0.5ml/ lit water depending on the age of nursery.



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



		Leaf eating caterpillar, thrips & mite.	- Spray Confidor @ 0.5 ml/ lit of water.
	For grown up trees	Powdery mildew	If powdery mildew is seen in the orchard, harvest mature fruits and spray Bayleton @7 g / 15 lit of water.
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 safe 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.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Fries/ fingerlings/ brooders	Pond and water	Remove aquatic weeds. Maintain minimum depth of 1.5 – 2.0 m. Apply Agri-Lime in brooder pond at small quantity at an interval of 30 days regularly.
		Feed	Provide feed 1-2 times @ 2 % body weight per day.
		Fish	- Male and female brooders should be stock in separate ponds for early breeding programs. - harvesting of fish may be done in area where water availability is low.

(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****19th 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 20th to 24th January, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (16th to 18th January, 2018)

Observed mainly clear sky but partly cloudy to overcast from 16th afternoon to 17th Jan with **no** rainfall during past three days. Maximum temperature range of 22.7 to 22.9 °C and minimum temperature range of 6.7 to 9.6 °C with mean relative humidity 90 % max and 52.7 % min was recorded in the past three days.

Weather forecast for next five days of Senapati (20th to 24th January, 2018)

Likely to have dense fog at isolated places during morning hours and clear sky during afternoon hours upto Wednesday. The maximum temp. 20-21 °C & minimum temp. 5-6 °C and relative humidity may reach up to 88% (max RH) & 34% (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		- Procure disease free and well filled quality seeds of pre-kharif rice for sowing. Recommended variety: RCM 12 - Land preparation for raising rice nursery may be started.
Rapeseed/ Mustard	Flowering to fruiting	Aphid	- Insecticide sprays must be given during afternoon hours only. - For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used. If the infestation is severe, then spray a systemic insecticide i.e. dimethoate once.
		Downy mildew, Powdery mildew, white rust & Alternaria blight	- Spray Redomil MZ 72 WP @ 2g/ litre after 50-60 days of sowing or spray Garlic Bulb Extract (ST) @ 1% or Trichoderma harzianum.
Field Pea	Flowering to fruiting		- 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 nimbicidin (0.3%) to control rust disease.
Rabi Maize	Vegetative		- Light irrigation may be given to keep soil moist if the soil is dry.
Seeds storage	Post harvest management		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. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
French bean	Land preparation and sowing		- 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.
Cole crops	Nursery raising		- Nursery for late crops may be raised.
Citrus	For nursery	Leaf Minor	- Spray Monocrotophos @ 0.25-0.5ml/ lit water depending on the age of nursery.
		Leaf eating caterpillar, thrips & mite.	- Spray Confidor @ 0.5 ml/ lit of water.
	For grown up trees	Powdery mildew	If powdery mildew is seen in the orchard, harvest mature fruits and spray Bayleton @7 g / 15 lit of water.



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



<i>Animal Sciences</i>			
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 safe 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****19th 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 20th to 24th January, 2018 as below:

<p>Significant past weather for the preceding bi-weekly of Imphal - West (16th to 18th January, 2018) Observed mainly clear sky but partly cloudy to overcast from 16th afternoon to 17th Jan with no rainfall during past three days. Maximum temperature range of 22.7 to 22.9 °C and minimum temperature range of 6.7 to 9.6 °C with mean relative humidity 90 % max and 52.7 % min was recorded in the past three days.</p>	<p>Weather forecast for next five days of Tamenglong (20th to 24th January, 2018) Likely to have dense fog at isolated places during morning hours and clear sky during afternoon hours upto Wednesday. The maximum temp. 20-21 °C & minimum temp. 5-6 °C and relative humidity may reach up to 88% (max RH) & 34% (min RH). The average wind speed may be 3-4 km/hr.</p>
--	---

<i>Field Crops</i>			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Pre-kharif Rice	Seed collection and land preparation for nursery		- Procure disease free and well filled quality seeds of pre-kharif rice for sowing. Recommended variety: RCM 12 - Land preparation for raising rice nursery may be started.
Rapeseed/ Mustard	Flowering to fruiting	Aphid	- Insecticide sprays must be given during afternoon hours only. - For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used. If the infestation is severe, then spray a systemic insecticide i.e. dimethoate once.
		Downy mildew, Powdery mildew, white rust & Alternaria blight	- Spray Redomil MZ 72 WP @ 2g/ litre after 50-60 days of sowing or spray Garlic Bulb Extract (ST) @ 1% or Trichoderma harzianum.
Field Pea	Flowering to fruiting		- 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 nimbicidin (0.3%) to control rust disease.
Rabi Maize	Vegetative		- Light irrigation may be given to keep soil moist if the soil is dry.
Potato	Vegetative to tuber formation		- Give light irrigation if the soil is dry. Ensure that the soil loose enough for better tuber growth.
		Thrips	Spraying with Tracer (spinosad) 48 SC @ 300 ml/ha or 0.02% phosphamidon, 0.03% dimethoate, methyl demeton or thiometon control the pest effectively.
		Cut worm	Spray Carbaryl @ 30ml/ 15 litre of water against cut worm.
Seeds storage	Post harvest management		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. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.

<i>Horticulture Crops</i>			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
French bean	Land preparation and sowing		- 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.
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		- Apply 60kg Urea, 62 Kg SSP and 25 kg MOP as basal dose and apply 60kg Urea/ sangam after 30-35 days after transplanting.
Cole crops	Nursery raising		- Nursery for late crops may be raised.
Citrus	For nursery	Leaf Minor	- Spray Monocrotophos @ 0.25-0.5ml/ lit water depending on the age of nursery.



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



		Leaf eating caterpillar, thrips & mite.	- Spray Confidor @ 0.5 ml/ lit of water.
	For grown up trees	Powdery mildew	If powdery mildew is seen in the orchard, harvest mature fruits and spray Bayleton @7 g / 15 lit of water.
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 safe 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.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Fries/ fingerlings/ brooders	Pond and water	Remove aquatic weeds. Maintain minimum depth of 1.5 – 2.0 m. Apply Agri-Lime in brooder pond at small quantity at an interval of 30 days regularly.
		Feed	Provide feed 1-2 times @ 2 % body weight per day.
		Fish	- Male and female brooders should be stock in separate ponds for early breeding programs. - harvesting of fish may be done in area where water availability is low.

(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

19th 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 20th to 24th January, 2018 as below:

<p>Significant past weather for the preceding bi-weekly of Imphal - West (16th to 18th January, 2018) Observed mainly clear sky but partly cloudy to overcast from 16th afternoon to 17th Jan with no rainfall during past three days. Maximum temperature range of 22.7 to 22.9 °C and minimum temperature range of 6.7 to 9.6 °C with mean relative humidity 90 % max and 52.7 % min was recorded in the past three days.</p>	<p>Weather forecast for next five days of Thoubal (20th to 24th January, 2018) Likely to have dense fog at isolated places during morning hours and clear sky during afternoon hours upto Wednesday. The maximum temp. 25-26 °C & minimum temp. 9-10 °C and relative humidity may reach up to 94% (max RH) & 37% (min RH). The average wind speed may be 0-2 km/hr.</p>
--	---

<i>Field Crops</i>			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Pre-kharif Rice	Seed collection and land preparation for nursery		- Procure disease free and well filled quality seeds of pre-kharif rice for sowing. Recommended variety: RCM 12 - Land preparation for raising rice nursery may be started.
Rapeseed/ Mustard	Flowering to fruiting	Aphid	- Insecticide sprays must be given during afternoon hours only. - For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used. If the infestation is severe, then spray a systemic insecticide i.e. dimethoate once.
		Downy mildew, Powdery mildew, white rust & Alternaria blight	- Spray Redomil MZ 72 WP @ 2g/ litre after 50-60 days of sowing or spray Garlic Bulb Extract (ST) @ 1% or Trichoderma harzianum.
Field Pea	Flowering to fruiting		- 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 nimbicidin (0.3%) to control rust disease.
Rabi Maize	Vegetative		- Light irrigation may be given to keep soil moist if the soil is dry.
Potato	Vegetative to tuber formation		- Give light irrigation if the soil is dry. Ensure that the soil loose enough for better tuber growth.
		Thrips	Spraying with Tracer (spinosad) 48 SC @ 300 ml/ha or 0.02% phosphamidon, 0.03% dimethoate, methyl demeton or thiometon control the pest effectively.
		Cut worm	Spray Carbaryl @ 30ml/ 15 litre of water against cut worm.
Seeds storage	Post harvest management		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. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.

<i>Horticulture Crops</i>			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
French bean	Land preparation and sowing		- 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.
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		- Apply 60kg Urea, 62 Kg SSP and 25 kg MOP as basal dose and apply 60kg Urea/ sangam after 30-35 days after transplanting.
Cole crops	Nursery raising		- Nursery for late crops may be raised.
Citrus	For nursery	Leaf Minor	- Spray Monocrotophos @ 0.25-0.5ml/ lit water depending on the age of nursery.



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



		Leaf eating caterpillar, thrips & mite.	- Spray Confidor @ 0.5 ml/ lit of water.
	For grown up trees	Powdery mildew	If powdery mildew is seen in the orchard, harvest mature fruits and spray Bayleton @7 g / 15 lit of water.
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 safe 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.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Fries/ fingerlings/ brooders	Pond and water	Remove aquatic weeds. Maintain minimum depth of 1.5 – 2.0 m. Apply Agri-Lime in brooder pond at small quantity at an interval of 30 days regularly.
		Feed	Provide feed 1-2 times @ 2 % body weight per day.
		Fish	- Male and female brooders should be stock in separate ponds for early breeding programs. - harvesting of fish may be done in area where water availability is low.

(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****19th 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 20th to 24th January, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (16th to 18th January, 2018)

Observed mainly clear sky but partly cloudy to overcast from 16th afternoon to 17th Jan with **no** rainfall during past three days. Maximum temperature range of 22.7 to 22.9 °C and minimum temperature range of 6.7 to 9.6 °C with mean relative humidity 90 % max and 52.7 % min was recorded in the past three days.

Weather forecast for next five days of Ukhrul (20th to 24th January, 2018)

Likely to have dense fog at isolated places during morning hours and clear sky during afternoon hours upto Wednesday. The maximum temp. 20-21 °C & minimum temp. 5-6 °C and relative humidity may reach up to 88% (max RH) & 34% (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		- Procure disease free and well filled quality seeds of pre-kharif rice for sowing. Recommended variety: RCM 12 - Land preparation for raising rice nursery may be started.
Rapeseed/ Mustard	Flowering to fruiting	Aphid	- Insecticide sprays must be given during afternoon hours only. - For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used. If the infestation is severe, then spray a systemic insecticide i.e. dimethoate once.
		Downy mildew, Powdery mildew, white rust & Alternaria blight	- Spray Redomil MZ 72 WP @ 2g/ litre after 50-60 days of sowing or spray Garlic Bulb Extract (ST) @ 1% or Trichoderma harzianum.
Field Pea	Flowering to fruiting		- 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 nimbicidin (0.3%) to control rust disease.
Rabi Maize	Vegetative		- Light irrigation may be given to keep soil moist if the soil is dry.
Seeds storage	Post harvest management		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. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
French bean	Land preparation and sowing		- 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.
Cole crops	Nursery raising		- Nursery for late crops may be raised.
Citrus	For nursery	Leaf Minor	- Spray Monocrotophos @ 0.25-0.5ml/ lit water depending on the age of nursery.
		Leaf eating caterpillar, thrips & mite.	- Spray Confidor @ 0.5 ml/ lit of water.
	For grown up trees	Powdery mildew	If powdery mildew is seen in the orchard, harvest mature fruits and spray Bayleton @7 g / 15 lit of water.



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



<i>Animal Sciences</i>			
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 safe 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