



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

**MANIPUR BULLETIN****9th 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 10th to 14th January, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (5th to 8th January, 2018)

Observed fog at foothills during morning hours and clear sky during afternoon hours with **no** rainfall during past four days. Maximum temperature range of 20.2 to 21.3 °C and minimum temperature range of 2.5 to 8.3 °C with mean relative humidity 93.25 % max and 50.75 % min was recorded in the past four days.

Weather forecast for next five days of Bishnupur (10th to 14th January, 2018)

Likely to have dense fog at isolated places during morning hours and clear to partly cloudy sky during afternoon hours upto Sunday. The maximum temp. 20-21 °C & minimum temp. 2-4 °C and relative humidity may reach up to 89% (max RH) & 38% (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
Rapeseed/ Mustard/	Flowering to fruiting	Aphid	- Use yellow plates for every 3 sq. m to attract the aphids or spray Pyrethrum @ 2ml/ litre of water on the infected patches. - For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used.
		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.
Lentil/ Blackgram (late variety)/ Field Pea	Vegetative to flowering	Aphid	- For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used.
		Powdery mildew & rust	- Spray Bayleton @ 7g/ 10 litres of water. Or spray Neem Seed Kernel Extract at 5% concentration for powdery mildew and nimbecidin (0.3%) to control rust disease.
Rabi Maize	Early vegetative		- Light irrigation may be given to keep soil moist if the soil is dry. - Thinning may be done in vegetative stage for mustard or pea intercropped with maize.
Potato	Vegetative		- If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.
		Aphid	- If aphid is observed in small area, wash off it with plain water but if it is severe, spray Cypermethrin 20 E.C. @ 1ml/ litre of water or Nuvan @ 0.5ml/litre of water.
		Cut worm	If cut-worm is observed then prepare poison bait of Trichlorfon (mixture of 1kg husk + 40g sugar + 5g Trichlorfon + water) and apply manually by putting near the stem of plant above the soil surface.
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
Cucurbits	Nursery raising		- Raise cucurbits like water-melon, cucumber, sponge gourd, etc. in poly-pouch and trays under polyhouse. - Recommended varieties of water melon :- for small type: Water Baby; for big type: Madhavi-10.
Onion/ Garlic	Vegetative		- Apply 64kg Urea, 44kg DAP and 34 kg MOP per sangam as basal dose followed by 64kg 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.
		Leaf eating caterpillar, thrips & mite.	- Spray Confidor @ 0.5 ml/ lit of water.
	For grown up	Powdery mildew	If powdery mildew is seen in the orchard, harvest mature fruits and spray



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



	trees		Bayleton @7 g / 15 lit of water.
Tomato	Vegetative to flowering	Early blight	- Apply Dichlorovos @ 0.5ml/ litre of water or Imidachlorpid @ 2ml/ 5 litres of water. Also apply Dithane M 45 @ 2g/ litre of water.
	Sowing		- 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. • Litter must be stirred frequently and aired every day.
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.
		• Shearing for wool	• Sheep should be sheared during this month.
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.
		• 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.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	- Lime/ Aqua magic should be applied regularly @ 20-30 kg/ha to keep good quality pond water. Water depth should be maintained at 1.0-1.5m. - Replace half of pond water with fresh & clean water at every 25-30 days interval. - Minimum feed must be provided, i.e., @ 1-2% of 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.
		Feeding	- Feeds should be provided once a day.

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



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

**MANIPUR BULLETIN****9th 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 10th to 14th January, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (5th to 8th January, 2018)

Observed fog at foothills during morning hours and clear sky during afternoon hours with **no** rainfall during past four days. Maximum temperature range of 20.2 to 21.3 °C and minimum temperature range of 2.5 to 8.3 °C with mean relative humidity 93.25 % max and 50.75 % min was recorded in the past four days.

Weather forecast for next five days of Chandel (10th to 14th January, 2018)

Likely to have dense fog at isolated places during morning hours and clear to partly cloudy sky during afternoon hours upto Sunday. The maximum temp. 20-21 °C & minimum temp. 3-4 °C and relative humidity may reach up to 87% (max RH) & 42% (min RH). The average wind speed may be 3-4 km/hr.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rapeseed/ Mustard/	Flowering to fruiting	Aphid	- Use yellow plates for every 3 sq. m to attract the aphids or spray Pyrethrum @ 2ml/ litre of water on the infected patches. - For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used.
		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.
Lentil/ Blackgram (late variety)/ Field Pea	Vegetative to flowering	Aphid	- For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used.
		Powdery mildew & rust	- Spray Bayleton @ 7g/ 10 litres of water. Or spray Neem Seed Kernel Extract at 5% concentration for powdery mildew and nimbecidin (0.3%) to control rust disease.
Rabi Maize	Early vegetative		- Light irrigation may be given to keep soil moist if the soil is dry. - Thinning may be done in vegetative stage for mustard or pea intercropped with maize.
Potato	Vegetative		- If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.
		Aphid	- If aphid is observed in small area, wash off it with plain water but if it is severe, spray Cypermethrin 20 E.C. @ 1ml/ litre of water or Nuvan @ 0.5ml/litre of water.
		Cut worm	If cut-worm is observed then prepare poison bait of Trichlorfon (mixture of 1kg husk + 40g sugar + 5g Trichlorfon + water) and apply manually by putting near the stem of plant above the soil surface.
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
Cucurbits	Nursery raising		- Raise cucurbits like water-melon, cucumber, sponge gourd, etc. in poly-pouch and trays under polyhouse. - Recommended varieties of water melon :- for small type: Water Baby; for big type: Madhavi-10.
Onion/ Garlic	Vegetative		- Apply 64kg Urea, 44kg DAP and 34 kg MOP per sangam as basal dose followed by 64kg 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.
		Leaf eating caterpillar, thrips & mite.	- Spray Confidor @ 0.5 ml/ lit of water.
	For grown up	Powdery mildew	If powdery mildew is seen in the orchard, harvest mature fruits and spray



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	trees		Bayleton @7 g / 15 lit of water.
Tomato	Vegetative to flowering	Early blight	- Apply Dichlorovos @ 0.5ml/ litre of water or Imidachlorpid @ 2ml/ 5 litres of water. Also apply Dithane M 45 @ 2g/ litre of water.
	Sowing		- 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	<ul style="list-style-type: none"> Management 	<ul style="list-style-type: none"> Protect animals/ birds from cold. Cover the wall with hessian cloth/ polythene sheet during night time. Litter must be stirred frequently and aired every day.
Sheep/ Goat	All age groups	<ul style="list-style-type: none"> Vaccination 	<ul style="list-style-type: none"> If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. this must be done during this month. Take adequate care to prevent occurrence of Mastitis. PPR immunization must be done once in every three years.
		<ul style="list-style-type: none"> De-worming 	<ul style="list-style-type: none"> Administer Tolzan-F @ 2.5ml orally/ 50kg b. wt.
		<ul style="list-style-type: none"> Shearing for wool 	<ul style="list-style-type: none"> Sheep should be sheared during this month.
Pig	All age groups except the young ones	<ul style="list-style-type: none"> Coccidial infection 	<ul style="list-style-type: none"> Ofloxacin/ Ornidazole (O₂) tab twice daily for 5 days.
		<ul style="list-style-type: none"> De-worming 	<ul style="list-style-type: none"> De-worm with Albendazole @7.5 mg/kg b.wt.
		<ul style="list-style-type: none"> Vaccination 	<ul style="list-style-type: none"> Vaccinate against FMD.
		<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Vaccination 	<ul style="list-style-type: none"> Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated. Cases of H.S. may be encountered during this period Immediate treatment using appropriate drugs with the help of Consultant must be advocated to save the animals.
		<ul style="list-style-type: none"> Deworming 	<ul style="list-style-type: none"> De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		<ul style="list-style-type: none"> Care & Management 	<ul style="list-style-type: none"> Mixture of mineral/ salts should be added in the feed. Avoid the cattle from chiting/biting by Flies Adopt tick control measures
		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.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	<ul style="list-style-type: none"> Lime/ Aqua magic should be applied regularly @ 20-30 kg/ha to keep good quality pond water. Water depth should be maintained at 1.0-1.5m. Replace half of pond water with fresh & clean water at every 25-30 days interval. Minimum feed must be provided, i.e., @ 1-2% of body weight per day.
		Fish	<ul style="list-style-type: none"> 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.
		Feeding	<ul style="list-style-type: none"> Feeds should be provided once a day.

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**MANIPUR BULLETIN****9th January, 2018****Churachandpur**

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Observed fog at foothills during morning hours and clear sky during afternoon hours with **no** rainfall during past four days. Maximum temperature range of 20.2 to 21.3 °C and minimum temperature range of 2.5 to 8.3 °C with mean relative humidity 93.25 % max and 50.75 % min was recorded in the past four days.

Weather forecast for next five days of Churachandpur (10th to 14th January, 2018)

Likely to have dense fog at isolated places during morning hours and clear to partly cloudy sky during afternoon hours upto Sunday. The maximum temp. 20-21 °C & minimum temp. 4-5 °C and relative humidity may reach up to 88% (max RH) & 32% (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
Rapeseed/ Mustard/	Flowering to fruiting	Aphid	- Use yellow plates for every 3 sq. m to attract the aphids or spray Pyrethrum @ 2ml/ litre of water on the infected patches. - For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used.
		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.
Lentil/ Blackgram (late variety)/ Field Pea	Vegetative to flowering	Aphid	- For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used.
		Powdery mildew & rust	- Spray Bayleton @ 7g/ 10 litres of water. Or spray Neem Seed Kernel Extract at 5% concentration for powdery mildew and nimbecidin (0.3%) to control rust disease.
Rabi Maize	Early vegetative		- Light irrigation may be given to keep soil moist if the soil is dry. - Thinning may be done in vegetative stage for mustard or pea intercropped with maize.
Potato	Vegetative		- If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.
		Aphid	- If aphid is observed in small area, wash off it with plain water but if it is severe, spray Cypermethrin 20 E.C. @ 1ml/ litre of water or Nuvan @ 0.5ml/litre of water.
		Cut worm	If cut-worm is observed then prepare poison bait of Trichlorfon (mixture of 1kg husk + 40g sugar + 5g Trichlorfon + water) and apply manually by putting near the stem of plant above the soil surface.
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
Cucurbits	Nursery raising		- Raise cucurbits like water-melon, cucumber, sponge gourd, etc. in poly-pouch and trays under polyhouse. - Recommended varieties of water melon :- for small type: Water Baby; for big type: Madhavi-10.
Onion/ Garlic	Vegetative		- Apply 64kg Urea, 44kg DAP and 34 kg MOP per sangam as basal dose followed by 64kg 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.
		Leaf eating caterpillar, thrips & mite.	- Spray Confidor @ 0.5 ml/ lit of water.
	For grown up	Powdery mildew	If powdery mildew is seen in the orchard, harvest mature fruits and spray



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



	trees		Bayleton @7 g / 15 lit of water.
Tomato	Vegetative to flowering	Early blight	- Apply Dichlorovos @ 0.5ml/ litre of water or Imidachlorpid @ 2ml/ 5 litres of water. Also apply Dithane M 45 @ 2g/ litre of water.
	Sowing		- 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

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		• De-worming	• Administer Tolzan-F @ 2.5ml orally/ 50kg b. wt.
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Pig	All age groups except the young ones	• Coccidial infection	• Ofloxacin/ Ornidazole (O ₂) tab twice daily for 5 days.
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		• 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	Grow-out	Pond water	- Lime/ Aqua magic should be applied regularly @ 20-30 kg/ha to keep good quality pond water. Water depth should be maintained at 1.0-1.5m. - Replace half of pond water with fresh & clean water at every 25-30 days interval. - Minimum feed must be provided, i.e., @ 1-2% of 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.
		Feeding	- Feeds should be provided once a day.

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



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“Gramin Krishi Mausam Seva”

**MANIPUR BULLETIN****9th 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 10th to 14th January, 2018 as below:

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Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
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Lentil/ Blackgram (late variety)/ Field Pea	Vegetative to flowering	Aphid	- For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used.
		Powdery mildew & rust	- Spray Bayleton @ 7g/ 10 litres of water. Or spray Neem Seed Kernel Extract at 5% concentration for powdery mildew and nimbecidin (0.3%) to control rust disease.
Rabi Maize	Early vegetative		- Light irrigation may be given to keep soil moist if the soil is dry. - Thinning may be done in vegetative stage for mustard or pea intercropped with maize.
Potato	Vegetative		- If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.
		Aphid	- If aphid is observed in small area, wash off it with plain water but if it is severe, spray Cypermethrin 20 E.C. @ 1ml/ litre of water or Nuvan @ 0.5ml/litre of water.
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Onion/ Garlic	Vegetative		- Apply 64kg Urea, 44kg DAP and 34 kg MOP per sangam as basal dose followed by 64kg 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.
		Leaf eating caterpillar, thrips & mite.	- Spray Confidor @ 0.5 ml/ lit of water.
	For grown up	Powdery mildew	If powdery mildew is seen in the orchard, harvest mature fruits and spray



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“Gramin Krishi Mausam Seva”



	trees		Bayleton @7 g / 15 lit of water.
Tomato	Vegetative to flowering	Early blight	- Apply Dichlorovos @ 0.5ml/ litre of water or Imidachlorpid @ 2ml/ 5 litres of water. Also apply Dithane M 45 @ 2g/ litre of water.
	Sowing		- 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. • Litter must be stirred frequently and aired every day.
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.
		• Shearing for wool	• Sheep should be sheared during this month.
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.
		• 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.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	- Lime/ Aqua magic should be applied regularly @ 20-30 kg/ha to keep good quality pond water. Water depth should be maintained at 1.0-1.5m. - Replace half of pond water with fresh & clean water at every 25-30 days interval. - Minimum feed must be provided, i.e., @ 1-2% of 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.
		Feeding	- Feeds should be provided once a day.

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



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

**MANIPUR BULLETIN****9th 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 10th to 14th January, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (5th to 8th January, 2018) Observed fog at foothills during morning hours and clear sky during afternoon hours with no rainfall during past four days. Maximum temperature range of 20.2 to 21.3 °C and minimum temperature range of 2.5 to 8.3 °C with mean relative humidity 93.25 % max and 50.75 % min was recorded in the past four days.	Weather forecast for next five days of Tamenglong (10th to 14th January, 2018) Likely to have dense fog at isolated places during morning hours and clear to partly cloudy sky during afternoon hours upto Sunday. The maximum temp. 21-22 °C & minimum temp. 4-6 °C and relative humidity may reach up to 88% (max RH) & 38% (min RH). The average wind speed may be 2-4 km/hr.
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Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rapeseed/ Mustard/	Flowering to fruiting	Aphid	- Use yellow plates for every 3 sq. m to attract the aphids or spray Pyrethrum @ 2ml/ litre of water on the infected patches. - For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used.
		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.
Lentil/ Blackgram (late variety)/ Field Pea	Vegetative to flowering	Aphid	- For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used.
		Powdery mildew & rust	- Spray Bayleton @ 7g/ 10 litres of water. Or spray Neem Seed Kernel Extract at 5% concentration for powdery mildew and nimbecidin (0.3%) to control rust disease.
Rabi Maize	Early vegetative		- Light irrigation may be given to keep soil moist if the soil is dry. - Thinning may be done in vegetative stage for mustard or pea intercropped with maize.
Potato	Vegetative		- If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.
		Aphid	- If aphid is observed in small area, wash off it with plain water but if it is severe, spray Cypermethrin 20 E.C. @ 1ml/ litre of water or Nuvan @ 0.5ml/litre of water.
		Cut worm	If cut-worm is observed then prepare poison bait of Trichlorfon (mixture of 1kg husk + 40g sugar + 5g Trichlorfon + water) and apply manually by putting near the stem of plant above the soil surface.
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
Cucurbits	Nursery raising		- Raise cucurbits like water-melon, cucumber, sponge gourd, etc. in poly-pouch and trays under polyhouse. - Recommended varieties of water melon :- for small type: Water Baby; for big type: Madhavi-10.
Onion/ Garlic	Vegetative		- Apply 64kg Urea, 44kg DAP and 34 kg MOP per sangam as basal dose followed by 64kg 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.
		Leaf eating caterpillar, thrips & mite.	- Spray Confidor @ 0.5 ml/ lit of water.
	For grown up	Powdery mildew	If powdery mildew is seen in the orchard, harvest mature fruits and spray



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



	trees		Bayleton @7 g / 15 lit of water.
Tomato	Vegetative to flowering	Early blight	- Apply Dichlorovos @ 0.5ml/ litre of water or Imidachlorpid @ 2ml/ 5 litres of water. Also apply Dithane M 45 @ 2g/ litre of water.
	Sowing		- 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. • Litter must be stirred frequently and aired every day.
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.
		• Shearing for wool	• Sheep should be sheared during this month.
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.
		• 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.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	- Lime/ Aqua magic should be applied regularly @ 20-30 kg/ha to keep good quality pond water. Water depth should be maintained at 1.0-1.5m. - Replace half of pond water with fresh & clean water at every 25-30 days interval. - Minimum feed must be provided, i.e., @ 1-2% of 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.
		Feeding	- Feeds should be provided once a day.

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



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

**MANIPUR BULLETIN****9th 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 10th to 14th January, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (5th to 8th January, 2018)

Observed fog at foothills during morning hours and clear sky during afternoon hours with **no** rainfall during past four days. Maximum temperature range of 20.2 to 21.3 °C and minimum temperature range of 2.5 to 8.3 °C with mean relative humidity 93.25 % max and 50.75 % min was recorded in the past four days.

Weather forecast for next five days of Thoubal (10th to 14th January, 2018)

Likely to have dense fog at isolated places during morning hours and clear to partly cloudy sky during afternoon hours upto Sunday. The maximum temp. 17-18 °C & minimum temp. 3-4 °C and relative humidity may reach up to 88% (max RH) & 41% (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
Rapeseed/ Mustard/	Flowering to fruiting	Aphid	- Use yellow plates for every 3 sq. m to attract the aphids or spray Pyrethrum @ 2ml/ litre of water on the infected patches. - For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used.
		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.
Lentil/ Blackgram (late variety)/ Field Pea	Vegetative to flowering	Aphid	- For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used.
		Powdery mildew & rust	- Spray Bayleton @ 7g/ 10 litres of water. Or spray Neem Seed Kernel Extract at 5% concentration for powdery mildew and nimbecidin (0.3%) to control rust disease.
Rabi Maize	Early vegetative		- Light irrigation may be given to keep soil moist if the soil is dry. - Thinning may be done in vegetative stage for mustard or pea intercropped with maize.
Potato	Vegetative		- If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.
		Aphid	- If aphid is observed in small area, wash off it with plain water but if it is severe, spray Cypermethrin 20 E.C. @ 1ml/ litre of water or Nuvan @ 0.5ml/litre of water.
		Cut worm	If cut-worm is observed then prepare poison bait of Trichlorfon (mixture of 1kg husk + 40g sugar + 5g Trichlorfon + water) and apply manually by putting near the stem of plant above the soil surface.
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
Cucurbits	Nursery raising		- Raise cucurbits like water-melon, cucumber, sponge gourd, etc. in poly-pouch and trays under polyhouse. - Recommended varieties of water melon :- for small type: Water Baby; for big type: Madhavi-10.
Onion/ Garlic	Vegetative		- Apply 64kg Urea, 44kg DAP and 34 kg MOP per sangam as basal dose followed by 64kg 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.
		Leaf eating caterpillar, thrips & mite.	- Spray Confidor @ 0.5 ml/ lit of water.
	For grown up	Powdery mildew	If powdery mildew is seen in the orchard, harvest mature fruits and spray



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



	trees		Bayleton @7 g / 15 lit of water.
Tomato	Vegetative to flowering	Early blight	- Apply Dichlorovos @ 0.5ml/ litre of water or Imidachlorpid @ 2ml/ 5 litres of water. Also apply Dithane M 45 @ 2g/ litre of water.
	Sowing		- 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. • Litter must be stirred frequently and aired every day.
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.
		• Shearing for wool	• Sheep should be sheared during this month.
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.
		• 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.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	- Lime/ Aqua magic should be applied regularly @ 20-30 kg/ha to keep good quality pond water. Water depth should be maintained at 1.0-1.5m. - Replace half of pond water with fresh & clean water at every 25-30 days interval. - Minimum feed must be provided, i.e., @ 1-2% of 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.
		Feeding	- Feeds should be provided once a day.

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



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

**MANIPUR BULLETIN****9th 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 10th to 14th January, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (5th to 8th January, 2018) Observed fog at foothills during morning hours and clear sky during afternoon hours with no rainfall during past four days. Maximum temperature range of 20.2 to 21.3 °C and minimum temperature range of 2.5 to 8.3 °C with mean relative humidity 93.25 % max and 50.75 % min was recorded in the past four days.	Weather forecast for next five days of Ukhrul (10th to 14th January, 2018) Likely to have dense fog at isolated places during morning hours and clear to partly cloudy sky during afternoon hours upto Sunday. The maximum temp. 17-18 °C & minimum temp. 4-5 °C and relative humidity may reach up to 84% (max RH) & 40% (min RH). The average wind speed may be 3-4 km/hr.
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Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rapeseed/ Mustard/	Flowering to fruiting	Aphid	- Use yellow plates for every 3 sq. m to attract the aphids or spray Pyrethrum @ 2ml/ litre of water on the infected patches. - For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used.
		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.
Lentil/ Blackgram (late variety)/ Field Pea	Vegetative to flowering	Aphid	- For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used.
		Powdery mildew & rust	- Spray Bayleton @ 7g/ 10 litres of water. Or spray Neem Seed Kernel Extract at 5% concentration for powdery mildew and nimbicidin (0.3%) to control rust disease.
Rabi Maize	Early vegetative		- Light irrigation may be given to keep soil moist if the soil is dry. - Thinning may be done in vegetative stage for mustard or pea intercropped with maize.
Potato	Vegetative		- If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.
		Aphid	- If aphid is observed in small area, wash off it with plain water but if it is severe, spray Cypermethrin 20 E.C. @ 1ml/ litre of water or Nuvan @ 0.5ml/litre of water.
		Cut worm	If cut-worm is observed then prepare poison bait of Trichlorfon (mixture of 1kg husk + 40g sugar + 5g Trichlorfon + water) and apply manually by putting near the stem of plant above the soil surface.
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
Cucurbits	Nursery raising		- Raise cucurbits like water-melon, cucumber, sponge gourd, etc. in poly-pouch and trays under polyhouse. - Recommended varieties of water melon :- for small type: Water Baby; for big type: Madhavi-10.
Onion/ Garlic	Vegetative		- Apply 64kg Urea, 44kg DAP and 34 kg MOP per sangam as basal dose followed by 64kg 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.
		Leaf eating caterpillar, thrips & mite.	- Spray Confidor @ 0.5 ml/ lit of water.
	For grown up	Powdery mildew	If powdery mildew is seen in the orchard, harvest mature fruits and spray



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



	trees		Bayleton @7 g / 15 lit of water.
Tomato	Vegetative to flowering	Early blight	- Apply Dichlorovos @ 0.5ml/ litre of water or Imidachlorpid @ 2ml/ 5 litres of water. Also apply Dithane M 45 @ 2g/ litre of water.
	Sowing		- 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. • Litter must be stirred frequently and aired every day.
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.
		• Shearing for wool	• Sheep should be sheared during this month.
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.
		• 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.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	- Lime/ Aqua magic should be applied regularly @ 20-30 kg/ha to keep good quality pond water. Water depth should be maintained at 1.0-1.5m. - Replace half of pond water with fresh & clean water at every 25-30 days interval. - Minimum feed must be provided, i.e., @ 1-2% of 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.
		Feeding	- Feeds should be provided once a day.

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



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

**MANIPUR BULLETIN****9th 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 10th to 14th January, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (5th to 8th January, 2018)

Observed fog at foothills during morning hours and clear sky during afternoon hours with **no** rainfall during past four days. Maximum temperature range of 20.2 to 21.3 °C and minimum temperature range of 2.5 to 8.3 °C with mean relative humidity 93.25 % max and 50.75 % min was recorded in the past four days.

Weather forecast for next five days of Imphal East (10th to 14th January, 2018)

Likely to have dense fog at isolated places during morning hours and clear to partly cloudy sky during afternoon hours upto Sunday. The maximum temp. 20-21 °C & minimum temp. 2-4 °C and relative humidity may reach up to 89% (max RH) & 38% (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
Rapeseed/ Mustard/	Flowering to fruiting	Aphid	- Use yellow plates for every 3 sq. m to attract the aphids or spray Pyrethrum @ 2ml/ litre of water on the infected patches. - For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used.
		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.
Lentil/ Blackgram (late variety)/ Field Pea	Vegetative to flowering	Aphid	- For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used.
		Powdery mildew & rust	- Spray Bayleton @ 7g/ 10 litres of water. Or spray Neem Seed Kernel Extract at 5% concentration for powdery mildew and nimbecidin (0.3%) to control rust disease.
Rabi Maize	Early vegetative		- Light irrigation may be given to keep soil moist if the soil is dry. - Thinning may be done in vegetative stage for mustard or pea intercropped with maize.
Potato	Vegetative		- If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.
		Aphid	- If aphid is observed in small area, wash off it with plain water but if it is severe, spray Cypermethrin 20 E.C. @ 1ml/ litre of water or Nuvan @ 0.5ml/litre of water.
		Cut worm	If cut-worm is observed then prepare poison bait of Trichlorfon (mixture of 1kg husk + 40g sugar + 5g Trichlorfon + water) and apply manually by putting near the stem of plant above the soil surface.
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
Cucurbits	Nursery raising		- Raise cucurbits like water-melon, cucumber, sponge gourd, etc. in poly-pouch and trays under polyhouse. - Recommended varieties of water melon :- for small type: Water Baby; for big type: Madhavi-10.
Onion/ Garlic	Vegetative		- Apply 64kg Urea, 44kg DAP and 34 kg MOP per sangam as basal dose followed by 64kg 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.
		Leaf eating caterpillar, thrips & mite.	- Spray Confidor @ 0.5 ml/ lit of water.
	For grown up	Powdery mildew	If powdery mildew is seen in the orchard, harvest mature fruits and spray



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	trees		Bayleton @7 g / 15 lit of water.
Tomato	Vegetative to flowering	Early blight	- Apply Dichlorovos @ 0.5ml/ litre of water or Imidachlorpid @ 2ml/ 5 litres of water. Also apply Dithane M 45 @ 2g/ litre of water.
	Sowing		- 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. • Litter must be stirred frequently and aired every day.
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.
		• Shearing for wool	• Sheep should be sheared during this month.
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.
		• 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.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	- Lime/ Aqua magic should be applied regularly @ 20-30 kg/ha to keep good quality pond water. Water depth should be maintained at 1.0-1.5m. - Replace half of pond water with fresh & clean water at every 25-30 days interval. - Minimum feed must be provided, i.e., @ 1-2% of 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.
		Feeding	- Feeds should be provided once a day.

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



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**MANIPUR BULLETIN****9th 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 10th to 14th January, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (5th to 8th January, 2018)

Observed fog at foothills during morning hours and clear sky during afternoon hours with **no** rainfall during past four days. Maximum temperature range of 20.2 to 21.3 °C and minimum temperature range of 2.5 to 8.3 °C with mean relative humidity 93.25 % max and 50.75 % min was recorded in the past four days.

Weather forecast for next five days of Imphal West (10th to 14th January, 2018)

Likely to have dense fog at isolated places during morning hours and clear to partly cloudy sky during afternoon hours upto Sunday. The maximum temp. 20-21 °C & minimum temp. 2-4 °C and relative humidity may reach up to 89% (max RH) & 38% (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
Rapeseed/ Mustard/	Flowering to fruiting	Aphid	- Use yellow plates for every 3 sq. m to attract the aphids or spray Pyrethrum @ 2ml/ litre of water on the infected patches. - For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used.
		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.
Lentil/ Blackgram (late variety)/ Field Pea	Vegetative to flowering	Aphid	- For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used.
		Powdery mildew & rust	- Spray Bayleton @ 7g/ 10 litres of water. Or spray Neem Seed Kernel Extract at 5% concentration for powdery mildew and nimbecidin (0.3%) to control rust disease.
Rabi Maize	Early vegetative		- Light irrigation may be given to keep soil moist if the soil is dry. - Thinning may be done in vegetative stage for mustard or pea intercropped with maize.
Potato	Vegetative		- If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.
		Aphid	- If aphid is observed in small area, wash off it with plain water but if it is severe, spray Cypermethrin 20 E.C. @ 1ml/ litre of water or Nuvan @ 0.5ml/litre of water.
		Cut worm	If cut-worm is observed then prepare poison bait of Trichlorfon (mixture of 1kg husk + 40g sugar + 5g Trichlorfon + water) and apply manually by putting near the stem of plant above the soil surface.
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.

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