



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

**MANIPUR BULLETIN****31st July, 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 1st to 5th August, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (27th to 30th July, 2018)

Observed **44.1 mm** rainfall with **mainly cloudy to overcast sky**. Maximum temperature recorded ranged from **28.3 to 31.7 °C** and minimum of **21.7 to 22.7 °C** with mean relative humidity **92.0 %** max and **65.0 %** min was recorded in the past four days & average wind speed was **2.9 – 4.0 km/ hr**.

Weather forecast for next five days of Ukhrul (1st to 5th August, 2018)

Likely to have light to moderate rains upto Saturday, heavy rains on Sunday and mainly cloudy to overcast sky with maximum temp. **26-27 °C** & minimum temp. **20-21 °C**. Relative humidity may reach upto **100 % (max RH)** & **93 % (min RH)**. The average wind speed may be **2-3 km/hr**.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rice	Tillering (Kharif rice)		- Maintain water level to 5-8cm and drain out excess water if accumulated due to heavy rain. - If the crop is in tillering stage, after rains weeding may be done manually or by using conoweeder followed by top dressing with Urea @33kg/ ha.
		Thrips & Leaf folder	- Spray Lambdacythrin @ 15 ml/ pump.
Kharif Maize	cob formation to maturity		- Maintain proper drainage system to avoid water logging due to heavy rains. - After rains weeding may be done to control insect pest population in the crop fields.
Soybean/ Groundnut	Flowering to fruiting		- Hand weeding should be done after rains to avoid hairy caterpillar. Also, earthing-up and thinning may be done after rains. Avoid earthing up after 40 days of sowing in groundnut. - Maintain proper drainage system to avoid water logging due to rains.
		Hairy caterpillars	- For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water).
		Tikka disease	- Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut.
Blackgram/ Rice Bean	Vegetative to Flowering		- Hand weeding should be done after rains if the weed population is high. - Spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) against hairy caterpillars.
Seeds storage	Post-harvest management		For seed purpose store the seeds in RC-Seed Bin after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Cauliflower	Vegetative stage of early crop and nursery of main crop	Plutella Diamond black moth	- Check for infestation of Plutella Diamond black moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed. - Raise main crop cauliflower nursery.
Tree bean	Grown up trees		- Bordeaux paste mixed with Carbaryl (20 g/lit of water) should be applied on the main trunk up to 5 ft height from the ground. - The soil of the basin area should be earthed. Trichoderma & Pseudomonas formulation @10g each/ tree mixed with 500 g FYM or vermicompost should be mixed in to the soil. - For 7 yrs and above and for bearing plants apply 7 kg FYM, 120g urea, 300g SSP, 80g MOP, 1 Kg lime should be applied.
Colocassia	Leaf spot/ Leaf blight		- Apply Mancozeb @ 2 gm/ltr water at 7 days or Ridomil MZ -72 W.P. @ 2gm/lit water 14 days interval at least twice.
Citrus			- Prune the disease infected twigs and burn them outside the farm area. - Spray Copper oxychloride @ 3ml/lit to control fungal disease.
		Greening	- Spray Streptocycline @ 1g/10 lit of water or Tetracycline@5g/10 litre water.
Banana	New Plantation		- Plant banana in newly constructed ring bands or bank of rivers/ ponds at a spacing of 2.7m x 3m for tall varieties and 1.8m x 2.4m or 1.8m x 2.4m for dwarf varieties. Pit size: 2x2x2 feet. Fill up the pit with soil & FYM in the ratio 3:2. Plant one



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Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



			sucker (with broad base & narrow leaves) per pit.
	Old Plantation		- Desuckering and removal of dried leaves and trashes and maintaining 3 plants per pit is required. - Care must be taken to avoid wilting disease in banana grown in same pit in poor drained area for more than 5-6 years.
Turmeric	Rhizome formation	Soft rot in ginger and Rhizome rot in turmeric	- Spray Redomil MZ 72 WP @ 2g/lit water alternately with Carbendazim @ 2g/lit water at 14 days interval.

Animal Sciences

* Provide clean drinking water for birds and animals. Drainage may be constructed well around the birds or animals sheds to avoid water logging.

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Duck)	All age groups	• Fungal Toxin	• Avoid consumption of feed with fungal growth.
		• Deworming	• Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.
		• Management	• Do not allow to consume muddy water to protect from E.coli infection. Use water sanitizer.
Sheep/ Goat	All age groups	• Vaccination	• If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. do it in this month.
		• Fascioliosis	• Give Tolzan-F @ 15ml orally/ kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
		• Management	• Protect from thunder showers. Protect from after winds (loo).
Pig	All age groups except the young ones	• De-worming	• Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
		• Vaccination	• Vaccinate against FMD.
		• Management	• Protect from thunder showers especially during night.
Cattle	All age groups excepts the young ones	• Vaccination	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated.
		• Deworming	• Protect animals from PICA (depraved appetite) by providing essential body salts (mineral forte powder) 25g/day.
		• Care & Management	• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		• Milk fever	• Mixture of mineral/ salts should be added in the feed/water to avoid loss of essential body salts. Avoid the cattle from chiting/ biting by flies. Adopt tick control measures.
			• Give 100-150ml of mixture calcium and phosphorous daily.

Fishery

* Encircle pond with happa net or raise the pond dyke height to avoid escape of fishes.

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.0 - 1.5 m and pH at 7.0 – 7.5. Apply Lime/ Green AQ for maintaining good quality water. Make culture water fresh and clean with high oxygen content.
		Feed	Provide feed 2-3 times @ 5-10% body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
		Fish	For semi-intensive farming, 8000-10000 fingerlings can be stocked in one hectare pond. - Stocking ratio may be maintained at 40% of surface feeder, 30% column feeder and 30% bottom feeder. Sampling of fish for growth, disease should be done regularly by netting.
	Brooder	Pond water and feed	Maintain minimum depth of 2.0-2.2 m. Maintain good quality water. Provide feed @ 3-5 % body weight per day.
	Breeding	Hormone	Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ 0.5 ml/kg of fish for catla, rohu and mirgal; 0.5-0.7 ml/kg for grass carp/ ngakra.

(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****31st July, 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 1st to 5th August, 2018 as below:

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Observed **44.1 mm** rainfall with **mainly cloudy to overcast sky**. Maximum temperature recorded ranged from **28.3 to 31.7 °C** and minimum of **21.7 to 22.7 °C** with mean relative humidity **92.0 %** max and **65.0 %** min was recorded in the past four days & average wind speed was **2.9 – 4.0 km/ hr**.

Weather forecast for next five days of Imphal West (1st to 5th August, 2018)

Likely to have light to moderate rains upto Saturday, heavy rains on Sunday and mainly cloudy to overcast sky with maximum temp. **28-30 °C** & minimum temp. **22-23 °C**. Relative humidity may reach upto **100 % (max RH)** & **97 % (min RH)**. The average wind speed may be **2 km/hr**.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rice	Tillering (Kharif rice)		- Maintain water level to 5-8cm and drain out excess water if accumulated due to heavy rain. - If the crop is in tillering stage, after rains weeding may be done manually or by using conoweeder followed by top dressing with Urea @33kg/ ha.
		Thrips & Leaf folder	- Spray Lambdacythrin @ 15 ml/ pump.
Kharif Maize	cob formation to maturity		- Maintain proper drainage system to avoid water logging due to heavy rains. - After rains weeding may be done to control insect pest population in the crop fields.
Soybean/ Groundnut	Flowering to fruiting		- Hand weeding should be done after rains to avoid hairy caterpillar. Also, earthing-up and thinning may be done after rains. Avoid earthing up after 40 days of sowing in groundnut. - Maintain proper drainage system to avoid water logging due to rains.
		Hairy caterpillars	- For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water).
		Tikka disease	- Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut.
Blackgram/ Rice Bean	Vegetative to Flowering		- Hand weeding should be done after rains if the weed population is high. - Spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) against hairy caterpillars.
Seeds storage	Post-harvest management		For seed purpose store the seeds in RC-Seed Bin after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Cauliflower	Vegetative stage of early crop and nursery of main crop	Plutella Diamond black moth	- Check for infestation of Plutella Diamond black moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed. - Raise main crop cauliflower nursery.
Tree bean	Grown up trees		- Bordeaux paste mixed with Carbaryl (20 g/lit of water) should be applied on the main trunk up to 5 ft height from the ground. - The soil of the basin area should be earthed. Trichoderma & Pseudomonas formulation @10g each/ tree mixed with 500 g FYM or vermicompost should be mixed in to the soil. - For 7 yrs and above and for bearing plants apply 7 kg FYM, 120g urea, 300g SSP, 80g MOP, 1 Kg lime should be applied.
Colocassia	Leaf spot/ Leaf blight		- Apply Mancozeb @ 2 gm/ltr water at 7 days or Ridomil MZ -72 W.P. @ 2gm/lit water 14 days interval at least twice.
Citrus			- Prune the disease infected twigs and burn them outside the farm area. - Spray Copper oxychloride @ 3ml/lit to control fungal disease.
		Greening	- Spray Streptocycline @ 1g/10 lit of water or Tetracycline@5g/10 litre water.
Banana	New Plantation		- Plant banana in newly constructed ring bands or bank of rivers/ ponds at a spacing of 2.7m x 3m for tall varieties and 1.8m x 2.4m or 1.8m x 2.4m for dwarf varieties. Pit size: 2x2x2 feet. Fill up the pit with soil & FYM in the ratio 3:2. Plant one



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	Old Plantation		- Desuckering and removal of dried leaves and trashes and maintaining 3 plants per pit is required. - Care must be taken to avoid wilting disease in banana grown in same pit in poor drained area for more than 5-6 years.
Turmeric	Rhizome formation	Soft rot in ginger and Rhizome rot in turmeric	- Spray Redomil MZ 72 WP @ 2g/lit water alternately with Carbendazim @ 2g/lit water at 14 days interval.

Animal Sciences

* Provide clean drinking water for birds and animals. Drainage may be constructed well around the birds or animals sheds to avoid water logging.

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Duck)	All age groups	• Fungal Toxin	• Avoid consumption of feed with fungal growth.
		• Deworming	• Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.
		• Management	• Do not allow to <i>consume muddy water to protect from E.coli infection. Use water sanitizer.</i>
Sheep/ Goat	All age groups	• Vaccination	• If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. do it in this month.
		• Fascioliosis	• Give Tolzan-F @ 15ml orally/ kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
		• Management	• Protect from thunder showers. Protect from after winds (loo).
Pig	All age groups except the young ones	• De-worming	• Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
		• Vaccination	• Vaccinate against FMD.
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Cattle	All age groups excepts the young ones	• Vaccination	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated.
		• Deworming	• Protect animals from PICA (depraved appetite) by providing essential body salts (mineral forte powder) 25g/day.
		• Care & Management	• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		• Milk fever	• Mixture of mineral/ salts should be added in the feed/water to avoid loss of essential body salts. Avoid the cattle from chiting/ biting by flies. Adopt tick control measures.
			• Give 100-150ml of mixture calcium and phosphorous daily.

Fishery

* *Encircle pond with happa net or raise the pond dyke height to avoid escape of fishes.*

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Carp culture	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.0 - 1.5 m and pH at 7.0 – 7.5. Apply Lime/ Green AQ for maintaining good quality water. Make culture water fresh and clean with high oxygen content.
		Feed	Provide feed 2-3 times @ 5-10% body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
		Fish	For semi-intensive farming, 8000-10000 fingerlings can be stocked in one hectare pond. - Stocking ratio may be maintained at 40% of surface feeder, 30% column feeder and 30% bottom feeder. Sampling of fish for growth, disease should be done regularly by netting.
	Brooder	Pond water and feed	Maintain minimum depth of 2.0-2.2 m. Maintain good quality water. Provide feed @ 3-5 % body weight per day.
	Breeding	Hormone	Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ 0.5 ml/kg of fish for catla, rohu and mirgal; 0.5-0.7 ml/kg for grass carp/ ngakra.

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**MANIPUR BULLETIN****31st July, 2018****Bishnupur**

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Weather forecast for next five days of Bishnupur (1st to 5th August, 2018)

Likely to have light to moderate rains upto Saturday, heavy rains on Sunday and mainly cloudy to overcast sky with maximum temp. **29-31 °C** & minimum temp. **23-24 °C**. Relative humidity may reach upto **100 % (max RH)** & **88 % (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
Rice	Tillering (Kharif rice)		- Maintain water level to 5-8cm and drain out excess water if accumulated due to heavy rain. - If the crop is in tillering stage, after rains weeding may be done manually or by using conoweeder followed by top dressing with Urea @33kg/ ha.
		Thrips & Leaf folder	- Spray Lambdacythrin @ 15 ml/ pump.
Kharif Maize	cob formation to maturity		- Maintain proper drainage system to avoid water logging due to heavy rains. - After rains weeding may be done to control insect pest population in the crop fields.
Soybean/ Groundnut	Flowering to fruiting		- Hand weeding should be done after rains to avoid hairy caterpillar. Also, earthing-up and thinning may be done after rains. Avoid earthing up after 40 days of sowing in groundnut. - Maintain proper drainage system to avoid water logging due to rains.
		Hairy caterpillars	- For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water).
		Tikka disease	- Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut.
Blackgram/ Rice Bean	Vegetative to Flowering		- Hand weeding should be done after rains if the weed population is high. - Spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) against hairy caterpillars.
Seeds storage	Post-harvest management		For seed purpose store the seeds in RC-Seed Bin after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.
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	Old Plantation		- Desuckering and removal of dried leaves and trashes and maintaining 3 plants per pit is required. - Care must be taken to avoid wilting disease in banana grown in same pit in poor drained area for more than 5-6 years.
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Fishery

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Type of Farming	Stage	Management	Agro-metrological advisories
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**MANIPUR BULLETIN****31st July, 2018****Chandel**

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Weather forecast for next five days of Chandel (1st to 5th August, 2018)

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Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Cauliflower	Vegetative stage of early crop and nursery of main crop	Plutella Diamond black moth	- Check for infestation of Plutella Diamond black moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed. - Raise main crop cauliflower nursery.
Tree bean	Grown up trees		- Bordeaux paste mixed with Carbaryl (20 g/lit of water) should be applied on the main trunk up to 5 ft height from the ground. - The soil of the basin area should be earthed. Trichoderma & Pseudomonas formulation @10g each/ tree mixed with 500 g FYM or vermicompost should be mixed in to the soil. - For 7 yrs and above and for bearing plants apply 7 kg FYM, 120g urea, 300g SSP, 80g MOP, 1 Kg lime should be applied.
Colocassia	Leaf spot/ Leaf blight		- Apply Mancozeb @ 2 gm/ltr water at 7 days or Ridomil MZ -72 W.P. @ 2gm/lit water 14 days interval at least twice.
Citrus			- Prune the disease infected twigs and burn them outside the farm area. - Spray Copper oxychloride @ 3ml/lit to control fungal disease.
		Greening	- Spray Streptocycline @ 1g/10 lit of water or Tetracycline@5g/10 litre water.
Banana	New Plantation		- Plant banana in newly constructed ring bands or bank of rivers/ ponds at a spacing of 2.7m x 3m for tall varieties and 1.8m x 2.4m or 1.8m x 2.4m for dwarf varieties. Pit size: 2x2x2 feet. Fill up the pit with soil & FYM in the ratio 3:2. Plant one



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



			sucker (with broad base & narrow leaves) per pit.
	Old Plantation		- Desuckering and removal of dried leaves and trashes and maintaining 3 plants per pit is required. - Care must be taken to avoid wilting disease in banana grown in same pit in poor drained area for more than 5-6 years.
Turmeric	Rhizome formation	Soft rot in ginger and Rhizome rot in turmeric	- Spray Redomil MZ 72 WP @ 2g/lit water alternately with Carbendazim @ 2g/lit water at 14 days interval.

Animal Sciences

* Provide clean drinking water for birds and animals. Drainage may be constructed well around the birds or animals sheds to avoid water logging.

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Duck)	All age groups	• Fungal Toxin	• Avoid consumption of feed with fungal growth.
		• Deworming	• Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.
		• Management	• Do not allow to <i>consume muddy water to protect from E.coli infection. Use water sanitizer.</i>
Sheep/ Goat	All age groups	• Vaccination	• If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. do it in this month.
		• Fascioliosis	• Give Tolzan-F @ 15ml orally/ kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
		• Management	• Protect from thunder showers. Protect from after winds (loo).
Pig	All age groups except the young ones	• De-worming	• Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
		• Vaccination	• Vaccinate against FMD.
		• Management	• Protect from thunder showers especially during night.
Cattle	All age groups excepts the young ones	• Vaccination	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated.
			• Protect animals from PICA (depraved appetite) by providing essential body salts (mineral forte powder) 25g/day.
		• 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/water to avoid loss of essential body salts. Avoid the cattle from chiting/ biting by flies. Adopt tick control measures.
		• Milk fever	• Give 100-150ml of mixture calcium and phosphorous daily.

Fishery

* Encircle pond with happa net or raise the pond dyke height to avoid escape of fishes.

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.0 - 1.5 m and pH at 7.0 – 7.5. Apply Lime/ Green AQ for maintaining good quality water. Make culture water fresh and clean with high oxygen content.
		Feed	Provide feed 2-3 times @ 5-10% body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
		Fish	For semi-intensive farming, 8000-10000 fingerlings can be stocked in one hectare pond. - Stocking ratio may be maintained at 40% of surface feeder, 30% column feeder and 30% bottom feeder. Sampling of fish for growth, disease should be done regularly by netting.
	Brooder	Pond water and feed	Maintain minimum depth of 2.0-2.2 m. Maintain good quality water. Provide feed @ 3-5 % body weight per day.
	Breeding	Hormone	Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ 0.5 ml/kg of fish for catla, rohu and mirgal; 0.5-0.7 ml/kg for grass carp/ ngakra.

(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****31st July, 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 1st to 5th August, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (27th to 30th July, 2018)

Observed **44.1 mm** rainfall with **mainly cloudy to overcast sky**. Maximum temperature recorded ranged from **28.3 to 31.7 °C** and minimum of **21.7 to 22.7 °C** with mean relative humidity **92.0 %** max and **65.0 %** min was recorded in the past four days & average wind speed was **2.9 – 4.0 km/ hr**.

Weather forecast for next five days of Churachandpur (1st to 5th August, 2018)

Likely to have light to moderate rains upto Saturday, heavy rains on Sunday and mainly cloudy to overcast sky with maximum temp. **28-30 °C** & minimum temp. **22-23 °C**. Relative humidity may reach upto **100 % (max RH)** & **87 % (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
Rice	Tillering (Kharif rice)		- Maintain water level to 5-8cm and drain out excess water if accumulated due to heavy rain. - If the crop is in tillering stage, after rains weeding may be done manually or by using conoweeder followed by top dressing with Urea @33kg/ ha.
		Thrips & Leaf folder	- Spray Lambdacythrin @ 15 ml/ pump.
Kharif Maize	cob formation to maturity		- Maintain proper drainage system to avoid water logging due to heavy rains. - After rains weeding may be done to control insect pest population in the crop fields.
Soybean/ Groundnut	Flowering to fruiting		- Hand weeding should be done after rains to avoid hairy caterpillar. Also, earthing-up and thinning may be done after rains. Avoid earthing up after 40 days of sowing in groundnut. - Maintain proper drainage system to avoid water logging due to rains.
		Hairy caterpillars	- For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water).
		Tikka disease	- Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut.
Blackgram/ Rice Bean	Vegetative to Flowering		- Hand weeding should be done after rains if the weed population is high. - Spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) against hairy caterpillars.
Seeds storage	Post-harvest management		For seed purpose store the seeds in RC-Seed Bin after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Cauliflower	Vegetative stage of early crop and nursery of main crop	Plutella Diamond black moth	- Check for infestation of Plutella Diamond black moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed. - Raise main crop cauliflower nursery.
Tree bean	Grown up trees		- Bordeaux paste mixed with Carbaryl (20 g/lit of water) should be applied on the main trunk up to 5 ft height from the ground. - The soil of the basin area should be earthed. Trichoderma & Pseudomonas formulation @10g each/ tree mixed with 500 g FYM or vermicompost should be mixed in to the soil. - For 7 yrs and above and for bearing plants apply 7 kg FYM, 120g urea, 300g SSP, 80g MOP, 1 Kg lime should be applied.
Colocassia	Leaf spot/ Leaf blight		- Apply Mancozeb @ 2 gm/ltr water at 7 days or Ridomil MZ -72 W.P. @ 2gm/lit water 14 days interval at least twice.
Citrus			- Prune the disease infected twigs and burn them outside the farm area. - Spray Copper oxychloride @ 3ml/lit to control fungal disease.
		Greening	- Spray Streptocycline @ 1g/10 lit of water or Tetracycline@5g/10 litre water.
Banana	New Plantation		- Plant banana in newly constructed ring bands or bank of rivers/ ponds at a spacing of 2.7m x 3m for tall varieties and 1.8m x 2.4m or 1.8m x 2.4m for dwarf varieties. Pit size: 2x2x2 feet. Fill up the pit with soil & FYM in the ratio 3:2. Plant one



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



			sucker (with broad base & narrow leaves) per pit.
	Old Plantation		- Desuckering and removal of dried leaves and trashes and maintaining 3 plants per pit is required. - Care must be taken to avoid wilting disease in banana grown in same pit in poor drained area for more than 5-6 years.
Turmeric	Rhizome formation	Soft rot in ginger and Rhizome rot in turmeric	- Spray Redomil MZ 72 WP @ 2g/lit water alternately with Carbendazim @ 2g/lit water at 14 days interval.

Animal Sciences

* Provide clean drinking water for birds and animals. Drainage may be constructed well around the birds or animals sheds to avoid water logging.

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Duck)	All age groups	• Fungal Toxin	• Avoid consumption of feed with fungal growth.
		• Deworming	• Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.
		• Management	• Do not allow to consume muddy water to protect from E.coli infection. Use water sanitizer.
Sheep/ Goat	All age groups	• Vaccination	• If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. do it in this month.
		• Fascioliosis	• Give Tolzan-F @ 15ml orally/ kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
		• Management	• Protect from thunder showers. Protect from after winds (loo).
Pig	All age groups except the young ones	• De-worming	• Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
		• Vaccination	• Vaccinate against FMD.
		• Management	• Protect from thunder showers especially during night.
Cattle	All age groups excepts the young ones	• Vaccination	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated.
		• Deworming	• Protect animals from PICA (depraved appetite) by providing essential body salts (mineral forte powder) 25g/day.
		• Care & Management	• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		• Milk fever	• Mixture of mineral/ salts should be added in the feed/water to avoid loss of essential body salts. Avoid the cattle from chiting/ biting by flies. Adopt tick control measures.
			• Give 100-150ml of mixture calcium and phosphorous daily.

Fishery

* Encircle pond with happa net or raise the pond dyke height to avoid escape of fishes.

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.0 - 1.5 m and pH at 7.0 – 7.5. Apply Lime/ Green AQ for maintaining good quality water. Make culture water fresh and clean with high oxygen content.
		Feed	Provide feed 2-3 times @ 5-10% body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
		Fish	For semi-intensive farming, 8000-10000 fingerlings can be stocked in one hectare pond. - Stocking ratio may be maintained at 40% of surface feeder, 30% column feeder and 30% bottom feeder. Sampling of fish for growth, disease should be done regularly by netting.
	Brooder	Pond water and feed	Maintain minimum depth of 2.0-2.2 m. Maintain good quality water. Provide feed @ 3-5 % body weight per day.
	Breeding	Hormone	Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ 0.5 ml/kg of fish for catla, rohu and mirgal; 0.5-0.7 ml/kg for grass carp/ ngakra.

(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****31st July, 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 1st to 5th August, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (27th to 30th July, 2018)

Observed **44.1 mm** rainfall with **mainly cloudy to overcast sky**. Maximum temperature recorded ranged from **28.3 to 31.7 °C** and minimum of **21.7 to 22.7 °C** with mean relative humidity **92.0 %** max and **65.0 %** min was recorded in the past four days & average wind speed was **2.9 – 4.0 km/ hr**.

Weather forecast for next five days of Imphal East (1st to 5th August, 2018)

Likely to have light to moderate rains upto Saturday, heavy rains on Sunday and mainly cloudy to overcast sky with maximum temp. **28-30 °C** & minimum temp. **22-23 °C**. Relative humidity may reach upto **100 % (max RH)** & **74 % (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
Rice	Tillering (Kharif rice)		- Maintain water level to 5-8cm and drain out excess water if accumulated due to heavy rain. - If the crop is in tillering stage, after rains weeding may be done manually or by using conoweeder followed by top dressing with Urea @33kg/ ha.
		Thrips & Leaf folder	- Spray Lambdacythrin @ 15 ml/ pump.
Kharif Maize	cob formation to maturity		- Maintain proper drainage system to avoid water logging due to heavy rains. - After rains weeding may be done to control insect pest population in the crop fields.
Soybean/ Groundnut	Flowering to fruiting		- Hand weeding should be done after rains to avoid hairy caterpillar. Also, earthing-up and thinning may be done after rains. Avoid earthing up after 40 days of sowing in groundnut. - Maintain proper drainage system to avoid water logging due to rains.
		Hairy caterpillars	- For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water).
		Tikka disease	- Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut.
Blackgram/ Rice Bean	Vegetative to Flowering		- Hand weeding should be done after rains if the weed population is high. - Spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) against hairy caterpillars.
Seeds storage	Post-harvest management		For seed purpose store the seeds in RC-Seed Bin after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Cauliflower	Vegetative stage of early crop and nursery of main crop	Plutella Diamond black moth	- Check for infestation of Plutella Diamond black moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed. - Raise main crop cauliflower nursery.
Tree bean	Grown up trees		- Bordeaux paste mixed with Carbaryl (20 g/lit of water) should be applied on the main trunk up to 5 ft height from the ground. - The soil of the basin area should be earthed. Trichoderma & Pseudomonas formulation @10g each/ tree mixed with 500 g FYM or vermicompost should be mixed in to the soil. - For 7 yrs and above and for bearing plants apply 7 kg FYM, 120g urea, 300g SSP, 80g MOP, 1 Kg lime should be applied.
Colocassia	Leaf spot/ Leaf blight		- Apply Mancozeb @ 2 gm/ltr water at 7 days or Ridomil MZ -72 W.P. @ 2gm/lit water 14 days interval at least twice.
Citrus			- Prune the disease infected twigs and burn them outside the farm area. - Spray Copper oxychloride @ 3ml/lit to control fungal disease.
		Greening	- Spray Streptocycline @ 1g/10 lit of water or Tetracycline@5g/10 litre water.
Banana	New Plantation		- Plant banana in newly constructed ring bands or bank of rivers/ ponds at a spacing of 2.7m x 3m for tall varieties and 1.8m x 2.4m or 1.8m x 2.4m for dwarf varieties. Pit size: 2x2x2 feet. Fill up the pit with soil & FYM in the ratio 3:2. Plant one



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



			sucker (with broad base & narrow leaves) per pit.
	Old Plantation		- Desuckering and removal of dried leaves and trashes and maintaining 3 plants per pit is required. - Care must be taken to avoid wilting disease in banana grown in same pit in poor drained area for more than 5-6 years.
Turmeric	Rhizome formation	Soft rot in ginger and Rhizome rot in turmeric	- Spray Redomil MZ 72 WP @ 2g/lit water alternately with Carbendazim @ 2g/lit water at 14 days interval.

Animal Sciences

* Provide clean drinking water for birds and animals. Drainage may be constructed well around the birds or animals sheds to avoid water logging.

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Duck)	All age groups	• Fungal Toxin	• Avoid consumption of feed with fungal growth.
		• Deworming	• Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.
		• Management	• Do not allow to consume muddy water to protect from E.coli infection. Use water sanitizer.
Sheep/ Goat	All age groups	• Vaccination	• If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. do it in this month.
		• Fascioliosis	• Give Tolzan-F @ 15ml orally/ kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
		• Management	• Protect from thunder showers. Protect from after winds (loo).
Pig	All age groups except the young ones	• De-worming	• Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
		• Vaccination	• Vaccinate against FMD.
		• Management	• Protect from thunder showers especially during night.
Cattle	All age groups excepts the young ones	• Vaccination	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated.
		• Deworming	• Protect animals from PICA (depraved appetite) by providing essential body salts (mineral forte powder) 25g/day.
		• Care & Management	• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		• Milk fever	• Mixture of mineral/ salts should be added in the feed/water to avoid loss of essential body salts. Avoid the cattle from chiting/ biting by flies. Adopt tick control measures.
			• Give 100-150ml of mixture calcium and phosphorous daily.

Fishery

* Encircle pond with happa net or raise the pond dyke height to avoid escape of fishes.

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.0 - 1.5 m and pH at 7.0 – 7.5. Apply Lime/ Green AQ for maintaining good quality water. Make culture water fresh and clean with high oxygen content.
		Feed	Provide feed 2-3 times @ 5-10% body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
		Fish	For semi-intensive farming, 8000-10000 fingerlings can be stocked in one hectare pond. - Stocking ratio may be maintained at 40% of surface feeder, 30% column feeder and 30% bottom feeder. Sampling of fish for growth, disease should be done regularly by netting.
	Brooder	Pond water and feed	Maintain minimum depth of 2.0-2.2 m. Maintain good quality water. Provide feed @ 3-5 % body weight per day.
	Breeding	Hormone	Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ 0.5 ml/kg of fish for catla, rohu and mirgal; 0.5-0.7 ml/kg for grass carp/ ngakra.

(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****31st July, 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 1st to 5th August, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (27th to 30th July, 2018)

Observed **44.1 mm** rainfall with **mainly cloudy to overcast sky**. Maximum temperature recorded ranged from **28.3 to 31.7 °C** and minimum of **21.7 to 22.7 °C** with mean relative humidity **92.0 %** max and **65.0 %** min was recorded in the past four days & average wind speed was **2.9 – 4.0 km/ hr**.

Weather forecast for next five days of Senapati (1st to 5th August, 2018)

Likely to have light to moderate rains upto Saturday, heavy rains on Sunday and mainly cloudy to overcast sky with maximum temp. **25-26 °C** & minimum temp. **19-20 °C**. Relative humidity may reach upto **100 % (max RH)** & **80 % (min RH)**. The average wind speed may be **2 km/hr**.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rice	Tillering (Kharif rice)		- Maintain water level to 5-8cm and drain out excess water if accumulated due to heavy rain. - If the crop is in tillering stage, after rains weeding may be done manually or by using conoweeder followed by top dressing with Urea @33kg/ ha.
		Thrips & Leaf folder	- Spray Lambdacythrin @ 15 ml/ pump.
Kharif Maize	cob formation to maturity		- Maintain proper drainage system to avoid water logging due to heavy rains. - After rains weeding may be done to control insect pest population in the crop fields.
Soybean/ Groundnut	Flowering to fruiting		- Hand weeding should be done after rains to avoid hairy caterpillar. Also, earthing-up and thinning may be done after rains. Avoid earthing up after 40 days of sowing in groundnut. - Maintain proper drainage system to avoid water logging due to rains.
		Hairy caterpillars	- For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water).
		Tikka disease	- Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut.
Blackgram/ Rice Bean	Vegetative to Flowering		- Hand weeding should be done after rains if the weed population is high. - Spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) against hairy caterpillars.
Seeds storage	Post-harvest management		For seed purpose store the seeds in RC-Seed Bin after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Cauliflower	Vegetative stage of early crop and nursery of main crop	Plutella Diamond black moth	- Check for infestation of Plutella Diamond black moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed. - Raise main crop cauliflower nursery.
Tree bean	Grown up trees		- Bordeaux paste mixed with Carbaryl (20 g/lit of water) should be applied on the main trunk up to 5 ft height from the ground. - The soil of the basin area should be earthed. Trichoderma & Pseudomonas formulation @10g each/ tree mixed with 500 g FYM or vermicompost should be mixed in to the soil. - For 7 yrs and above and for bearing plants apply 7 kg FYM, 120g urea, 300g SSP, 80g MOP, 1 Kg lime should be applied.
Colocassia	Leaf spot/ Leaf blight		- Apply Mancozeb @ 2 gm/ltr water at 7 days or Ridomil MZ -72 W.P. @ 2gm/lit water 14 days interval at least twice.
Citrus			- Prune the disease infected twigs and burn them outside the farm area. - Spray Copper oxychloride @ 3ml/lit to control fungal disease.
		Greening	- Spray Streptocycline @ 1g/10 lit of water or Tetracycline@5g/10 litre water.
Banana	New Plantation		- Plant banana in newly constructed ring bands or bank of rivers/ ponds at a spacing of 2.7m x 3m for tall varieties and 1.8m x 2.4m or 1.8m x 2.4m for dwarf varieties. Pit size: 2x2x2 feet. Fill up the pit with soil & FYM in the ratio 3:2. Plant one



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



			sucker (with broad base & narrow leaves) per pit.
	Old Plantation		<ul style="list-style-type: none"> - Desuckering and removal of dried leaves and trashes and maintaining 3 plants per pit is required. - Care must be taken to avoid wilting disease in banana grown in same pit in poor drained area for more than 5-6 years.
Turmeric	Rhizome formation	Soft rot in ginger and Rhizome rot in turmeric	<ul style="list-style-type: none"> - Spray Redomil MZ 72 WP @ 2g/lit water alternately with Carbendazim @ 2g/lit water at 14 days interval.

Animal Sciences

* Provide clean drinking water for birds and animals. Drainage may be constructed well around the birds or animals sheds to avoid water logging.

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Duck)	All age groups	• Fungal Toxin	• Avoid consumption of feed with fungal growth.
		• Deworming	• Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.
		• Management	• Do not allow to <i>consume muddy water to protect from E.coli infection. Use water sanitizer.</i>
Sheep/ Goat	All age groups	• Vaccination	• If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. do it in this month.
		• Fascioliosis	• Give Tolzan-F @ 15ml orally/ kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
		• Management	• Protect from thunder showers. Protect from after winds (loo).
Pig	All age groups except the young ones	• De-worming	• Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
		• Vaccination	• Vaccinate against FMD.
		• Management	• Protect from thunder showers especially during night.
Cattle	All age groups excepts the young ones	• Vaccination	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated.
			• Protect animals from PICA (depraved appetite) by providing essential body salts (mineral forte powder) 25g/day.
		• 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/water to avoid loss of essential body salts. Avoid the cattle from chiting/ biting by flies. Adopt tick control measures.
		• Milk fever	• Give 100-150ml of mixture calcium and phosphorous daily.

Fishery

* *Encircle pond with happa net or raise the pond dyke height to avoid escape of fishes.*

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.0 - 1.5 m and pH at 7.0 – 7.5. Apply Lime/ Green AQ for maintaining good quality water. Make culture water fresh and clean with high oxygen content.
		Feed	Provide feed 2-3 times @ 5-10% body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
		Fish	For semi-intensive farming, 8000-10000 fingerlings can be stocked in one hectare pond. - Stocking ratio may be maintained at 40% of surface feeder, 30% column feeder and 30% bottom feeder. Sampling of fish for growth, disease should be done regularly by netting.
	Brooder	Pond water and feed	Maintain minimum depth of 2.0-2.2 m. Maintain good quality water. Provide feed @ 3-5 % body weight per day.
	Breeding	Hormone	Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ 0.5 ml/kg of fish for catla, rohu and mirgal; 0.5-0.7 ml/kg for grass carp/ ngakra.

(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****31st July, 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 1st to 5th August, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (27th to 30th July, 2018)

Observed **44.1 mm** rainfall with **mainly cloudy to overcast sky**. Maximum temperature recorded ranged from **28.3 to 31.7 °C** and minimum of **21.7 to 22.7 °C** with mean relative humidity **92.0 %** max and **65.0 %** min was recorded in the past four days & average wind speed was **2.9 – 4.0 km/ hr**.

Weather forecast for next five days of Tamenglong (1st to 5th August, 2018)

Likely to have light to moderate rains upto Saturday, heavy rains on Sunday and mainly cloudy to overcast sky with maximum temp. **26-27 °C** & minimum temp. **20-21 °C**. Relative humidity may reach upto **100 % (max RH)** & **87 % (min RH)**. The average wind speed may be **2 km/hr**.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rice	Tillering (Kharif rice)		- Maintain water level to 5-8cm and drain out excess water if accumulated due to heavy rain. - If the crop is in tillering stage, after rains weeding may be done manually or by using conoweeder followed by top dressing with Urea @33kg/ ha.
		Thrips & Leaf folder	- Spray Lambdacythrin @ 15 ml/ pump.
Kharif Maize	cob formation to maturity		- Maintain proper drainage system to avoid water logging due to heavy rains. - After rains weeding may be done to control insect pest population in the crop fields.
Soybean/ Groundnut	Flowering to fruiting		- Hand weeding should be done after rains to avoid hairy caterpillar. Also, earthing-up and thinning may be done after rains. Avoid earthing up after 40 days of sowing in groundnut. - Maintain proper drainage system to avoid water logging due to rains.
		Hairy caterpillars	- For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water).
		Tikka disease	- Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut.
Blackgram/ Rice Bean	Vegetative to Flowering		- Hand weeding should be done after rains if the weed population is high. - Spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) against hairy caterpillars.
Seeds storage	Post-harvest management		For seed purpose store the seeds in RC-Seed Bin after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Cauliflower	Vegetative stage of early crop and nursery of main crop	Plutella Diamond black moth	- Check for infestation of Plutella Diamond black moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed. - Raise main crop cauliflower nursery.
Tree bean	Grown up trees		- Bordeaux paste mixed with Carbaryl (20 g/lit of water) should be applied on the main trunk up to 5 ft height from the ground. - The soil of the basin area should be earthed. Trichoderma & Pseudomonas formulation @10g each/ tree mixed with 500 g FYM or vermicompost should be mixed in to the soil. - For 7 yrs and above and for bearing plants apply 7 kg FYM, 120g urea, 300g SSP, 80g MOP, 1 Kg lime should be applied.
Colocassia	Leaf spot/ Leaf blight		- Apply Mancozeb @ 2 gm/ltr water at 7 days or Ridomil MZ -72 W.P. @ 2gm/lit water 14 days interval at least twice.
Citrus			- Prune the disease infected twigs and burn them outside the farm area. - Spray Copper oxychloride @ 3ml/lit to control fungal disease.
		Greening	- Spray Streptocycline @ 1g/10 lit of water or Tetracycline@5g/10 litre water.
Banana	New Plantation		- Plant banana in newly constructed ring bands or bank of rivers/ ponds at a spacing of 2.7m x 3m for tall varieties and 1.8m x 2.4m or 1.8m x 2.4m for dwarf varieties. Pit size: 2x2x2 feet. Fill up the pit with soil & FYM in the ratio 3:2. Plant one



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



			sucker (with broad base & narrow leaves) per pit.
	Old Plantation		- Desuckering and removal of dried leaves and trashes and maintaining 3 plants per pit is required. - Care must be taken to avoid wilting disease in banana grown in same pit in poor drained area for more than 5-6 years.
Turmeric	Rhizome formation	Soft rot in ginger and Rhizome rot in turmeric	- Spray Redomil MZ 72 WP @ 2g/lit water alternately with Carbendazim @ 2g/lit water at 14 days interval.

Animal Sciences

* Provide clean drinking water for birds and animals. Drainage may be constructed well around the birds or animals sheds to avoid water logging.

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Duck)	All age groups	• Fungal Toxin	• Avoid consumption of feed with fungal growth.
		• Deworming	• Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.
		• Management	• Do not allow to consume muddy water to protect from E.coli infection. Use water sanitizer.
Sheep/ Goat	All age groups	• Vaccination	• If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. do it in this month.
		• Fascioliosis	• Give Tolzan-F @ 15ml orally/ kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
		• Management	• Protect from thunder showers. Protect from after winds (loo).
Pig	All age groups except the young ones	• De-worming	• Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
		• Vaccination	• Vaccinate against FMD.
		• Management	• Protect from thunder showers especially during night.
Cattle	All age groups excepts the young ones	• Vaccination	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated.
		• Deworming	• Protect animals from PICA (depraved appetite) by providing essential body salts (mineral forte powder) 25g/day.
		• Care & Management	• De-worm with Albomac suspension @ 60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		• Milk fever	• Mixture of mineral/ salts should be added in the feed/water to avoid loss of essential body salts. Avoid the cattle from chiting/ biting by flies. Adopt tick control measures.
			• Give 100-150ml of mixture calcium and phosphorous daily.

Fishery

* Encircle pond with happa net or raise the pond dyke height to avoid escape of fishes.

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.0 - 1.5 m and pH at 7.0 – 7.5. Apply Lime/ Green AQ for maintaining good quality water. Make culture water fresh and clean with high oxygen content.
		Feed	Provide feed 2-3 times @ 5-10% body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
		Fish	For semi-intensive farming, 8000-10000 fingerlings can be stocked in one hectare pond. - Stocking ratio may be maintained at 40% of surface feeder, 30% column feeder and 30% bottom feeder. Sampling of fish for growth, disease should be done regularly by netting.
	Brooder	Pond water and feed	Maintain minimum depth of 2.0-2.2 m. Maintain good quality water. Provide feed @ 3-5 % body weight per day.
	Breeding	Hormone	Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ 0.5 ml/kg of fish for catla, rohu and mirgal; 0.5-0.7 ml/kg for grass carp/ ngakra.

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“Gramin Krishi Mausam Seva”

**MANIPUR BULLETIN****31st July, 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 1st to 5th August, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (27th to 30th July, 2018)

Observed **44.1 mm** rainfall with **mainly cloudy to overcast sky**. Maximum temperature recorded ranged from **28.3 to 31.7 °C** and minimum of **21.7 to 22.7 °C** with mean relative humidity **92.0 %** max and **65.0 %** min was recorded in the past four days & average wind speed was **2.9 – 4.0 km/ hr**.

Weather forecast for next five days of Thoubal (1st to 5th August, 2018)

Likely to have light to moderate rains upto Saturday, heavy rains on Sunday and mainly cloudy to overcast sky with maximum temp. **30-31 °C** & minimum temp. **22-24 °C**. Relative humidity may reach upto **100 % (max RH)** & **91 % (min RH)**. The average wind speed may be **2-4 km/hr**.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rice	Tillering (Kharif rice)		- Maintain water level to 5-8cm and drain out excess water if accumulated due to heavy rain. - If the crop is in tillering stage, after rains weeding may be done manually or by using conoweeder followed by top dressing with Urea @33kg/ ha.
		Thrips & Leaf folder	- Spray Lambdacythrin @ 15 ml/ pump.
Kharif Maize	cob formation to maturity		- Maintain proper drainage system to avoid water logging due to heavy rains. - After rains weeding may be done to control insect pest population in the crop fields.
Soybean/ Groundnut	Flowering to fruiting		- Hand weeding should be done after rains to avoid hairy caterpillar. Also, earthing-up and thinning may be done after rains. Avoid earthing up after 40 days of sowing in groundnut. - Maintain proper drainage system to avoid water logging due to rains.
		Hairy caterpillars	- For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water).
		Tikka disease	- Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut.
Blackgram/ Rice Bean	Vegetative to Flowering		- Hand weeding should be done after rains if the weed population is high. - Spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) against hairy caterpillars.
Seeds storage	Post-harvest management		For seed purpose store the seeds in RC-Seed Bin after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.
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Colocassia	Leaf spot/ Leaf blight		- Apply Mancozeb @ 2 gm/ltr water at 7 days or Ridomil MZ -72 W.P. @ 2gm/lit water 14 days interval at least twice.
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