



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

**MANIPUR BULLETIN****3rd August, 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 4th to 8th August, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (31st July to 2nd August, 2018)

Observed **34.7 mm** rainfall with **mainly cloudy to overcast sky**. Maximum temperature recorded ranged from **26.4 to 29.1 °C** and minimum of **21.0 to 22.4 °C** with mean relative humidity **95.0 %** max and **77.3 %** min was recorded in the past four days & average wind speed was **2.6 – 3.4 km/ hr**.

Weather forecast for next five days of Bishnupur (4th to 8th August, 2018)

Likely to have light to moderate rains upto Wednesday but heavy rains on Sunday and mainly cloudy to overcast sky with maximum temp. **29-32 °C** & minimum temp. **22-23 °C**. Relative humidity may reach upto **100 % (max RH)** & **82 % (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.
Ginger/ 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.



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



Turmeric	Rhizome formation	Taphrine leaf blotch and other leaf spot	- Spray Redomil MZ 72 WP @ 2g/lit water at least two times alternately with Sixer at 15 days interval.
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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.
		• Ticks	• Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
		• Vaccination	• Vaccinate against FMD.
		• Management	• Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.
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.
		• Endoparasite/ Ectoparasite	• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		• Care & Management	• Inject Parid @ 1 ml/ 50 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	Breeding	Pond and water	- Clean and clear water having 7.0-7.8 pH free from unwanted vegetation and insects. Water depth should be maintained at 1.0-1.5m.
		Fish	- Select good quality of carp brooders (2-4 years old) having more than 1kg b. wt. for Rohu, Mrigal, Catla, Kuri for seed production. For Pengba & Khabak b. wt. May be less than 300g.
		Hormone dose	- Ovitide/ Wova-FH/ Ovaprim@ 0.5ml/kg body weight can be injected to induce for spawning.
	nurseries		- Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. p ^H of pond water should be maintained at 7.0-7.5. Feeds should be provided 2-3 times a day @ 5-10 body weight per day. 20-30 million spawn can be stock in 1 ha.
	Grow -out	Pond and water	- Regular manuring at interval of 30 days with a slurry of RCD @ 1500kg/ha. Maintained p ^H of pond water at 7.0-7.5. Greenish colouration of water is desirable. If any change in colour, odour of water half of the water should be drain out and replace with fresh water.
		Fish	- 8000-10,000 fingerlings/ha can be stocked. Sampling of fish should be done by regular netting.
		Feed	- Well balanced feed fortified with vitamins and minerals should be provided @ 3-5% body weight per day. Feed can be fed at 2-3 times a day.

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



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“Gramin Krishi Mausam Seva”

**MANIPUR BULLETIN****3rd August, 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 4th to 8th August, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (31st July to 2nd August, 2018)

Observed **34.7 mm** rainfall with **mainly cloudy to overcast sky**. Maximum temperature recorded ranged from **26.4 to 29.1 °C** and minimum of **21.0 to 22.4 °C** with mean relative humidity **95.0 %** max and **77.3 %** min was recorded in the past four days & average wind speed was **2.6 – 3.4 km/ hr**.

Weather forecast for next five days of Chandel (4th to 8th August, 2018)

Likely to have light to moderate rains upto Wednesday but heavy rains on Sunday and mainly cloudy to overcast sky with maximum temp. **29-32 °C** & minimum temp. **22-23 °C**. Relative humidity may reach upto **100 % (max RH)** & **89 % (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.
Ginger/ 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.



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Turmeric	Rhizome formation	Taphrine leaf blotch and other leaf spot	- Spray Redomil MZ 72 WP @ 2g/lit water at least two times alternately with Sixer at 15 days interval.
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Animal Sciences

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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.
		• Fasciolosis	• 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.
		• Ticks	• Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
		• Vaccination	• Vaccinate against FMD.
		• Management	• Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.
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.
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Carp culture	Breeding	Pond and water	- Clean and clear water having 7.0-7.8 pH free from unwanted vegetation and insects. Water depth should be maintained at 1.0-1.5m.
		Fish	- Select good quality of carp brooders (2-4 years old) having more than 1kg b. wt. for Rohu, Mrigal, Catla, Kuri for seed production. For Pengba & Khabak b. wt. May be less than 300g.
		Hormone dose	- Ovitide/ Wova-FH/ Ovaprim@ 0.5ml/kg body weight can be injected to induce for spawning.
	nurseries		- Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. p ^H of pond water should be maintained at 7.0-7.5. Feeds should be provided 2-3 times a day @ 5-10 body weight per day. 20-30 million spawn can be stock in 1 ha.
	Grow -out	Pond and water	- Regular manuring at interval of 30 days with a slurry of RCD @ 1500kg/ha. Maintained p ^H of pond water at 7.0-7.5. Greenish colouration of water is desirable. If any change in colour, odour of water half of the water should be drain out and replace with fresh water.
		Fish	- 8000-10,000 fingerlings/ha can be stocked. Sampling of fish should be done by regular netting.
		Feed	- Well balanced feed fortified with vitamins and minerals should be provided @ 3-5% body weight per day. Feed can be fed at 2-3 times a day.

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Weather forecast for next five days of Churachandpur (4th to 8th August, 2018)

Likely to have light to moderate rains upto Wednesday but heavy rains on Sunday and mainly cloudy to overcast sky with maximum temp. **29-32 °C** & minimum temp. **22-23 °C**. Relative humidity may reach upto **100 % (max RH)** & **82 % (min RH)**. The average wind speed may be **0-2 km/hr**.

Field Crops			
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		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.
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“Gramin Krishi Mausam Seva”



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Fishery

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Type of Farming	Stage	Management	Agro-metrological advisories
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Scientist i/c, GKMS



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**MANIPUR BULLETIN****3rd August, 2018****Imphal East**

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Weather forecast for next five days of Imphal East (4th to 8th August, 2018)

Likely to have light to moderate rains upto Wednesday but heavy rains on Sunday and mainly cloudy to overcast sky with maximum temp. **29-32 °C** & minimum temp. **22-23 °C**. Relative humidity may reach upto **100 % (max RH)** & **73 % (min RH)**. The average wind speed may be **0-2 km/hr**.

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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.
Ginger/ 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.



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



Turmeric	Rhizome formation	Taphrine leaf blotch and other leaf spot	- Spray Redomil MZ 72 WP @ 2g/lit water at least two times alternately with Sixer at 15 days interval.
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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.
		• Ticks	• Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
		• Vaccination	• Vaccinate against FMD.
		• Management	• Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.
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.
		• Endoparasite/ Ectoparasite	• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		• Care & Management	• Inject Parid @ 1 ml/ 50 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	Breeding	Pond and water	- Clean and clear water having 7.0-7.8 pH free from unwanted vegetation and insects. Water depth should be maintained at 1.0-1.5m.
		Fish	- Select good quality of carp brooders (2-4 years old) having more than 1kg b. wt. for Rohu, Mrigal, Catla, Kuri for seed production. For Pengba & Khabak b. wt. May be less than 300g.
		Hormone dose	- Ovitide/ Wova-FH/ Ovaprim@ 0.5ml/kg body weight can be injected to induce for spawning.
	nurseries		- Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. p ^H of pond water should be maintained at 7.0-7.5. Feeds should be provided 2-3 times a day @ 5-10 body weight per day. 20-30 million spawn can be stock in 1 ha.
	Grow -out	Pond and water	- Regular manuring at interval of 30 days with a slurry of RCD @ 1500kg/ha. Maintained p ^H of pond water at 7.0-7.5. Greenish colouration of water is desirable. If any change in colour, odour of water half of the water should be drain out and replace with fresh water.
		Fish	- 8000-10,000 fingerlings/ha can be stocked. Sampling of fish should be done by regular netting.
		Feed	- Well balanced feed fortified with vitamins and minerals should be provided @ 3-5% body weight per day. Feed can be fed at 2-3 times 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****3rd August, 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 4th to 8th August, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (31st July to 2nd August, 2018)

Observed **34.7 mm** rainfall with **mainly cloudy to overcast sky**. Maximum temperature recorded ranged from **26.4 to 29.1 °C** and minimum of **21.0 to 22.4 °C** with mean relative humidity **95.0 %** max and **77.3 %** min was recorded in the past four days & average wind speed was **2.6 – 3.4 km/ hr**.

Weather forecast for next five days of Imphal West (4th to 8th August, 2018)

Likely to have light to moderate rains upto Wednesday but heavy rains on Sunday and mainly cloudy to overcast sky with maximum temp. **29-32 °C** & minimum temp. **22-23 °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.
Ginger/ 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.



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



Turmeric	Rhizome formation	Taphrine leaf blotch and other leaf spot	- Spray Redomil MZ 72 WP @ 2g/lit water at least two times alternately with Sixer at 15 days interval.
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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.
		• Ticks	• Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
		• Vaccination	• Vaccinate against FMD.
		• Management	• Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.
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.
		• Endoparasite/ Ectoparasite	• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		• Care & Management	• Inject Parid @ 1 ml/ 50 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	Breeding	Pond and water	- Clean and clear water having 7.0-7.8 pH free from unwanted vegetation and insects. Water depth should be maintained at 1.0-1.5m.
		Fish	- Select good quality of carp brooders (2-4 years old) having more than 1kg b. wt. for Rohu, Mrigal, Catla, Kuri for seed production. For Pengba & Khabak b. wt. May be less than 300g.
		Hormone dose	- Ovitide/ Wova-FH/ Ovaprim@ 0.5ml/kg body weight can be injected to induce for spawning.
	nurseries		- Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. p ^H of pond water should be maintained at 7.0-7.5. Feeds should be provided 2-3 times a day @ 5-10 body weight per day. 20-30 million spawn can be stock in 1 ha.
	Grow -out	Pond and water	- Regular manuring at interval of 30 days with a slurry of RCD @ 1500kg/ha. Maintained p ^H of pond water at 7.0-7.5. Greenish colouration of water is desirable. If any change in colour, odour of water half of the water should be drain out and replace with fresh water.
		Fish	- 8000-10,000 fingerlings/ha can be stocked. Sampling of fish should be done by regular netting.
		Feed	- Well balanced feed fortified with vitamins and minerals should be provided @ 3-5% body weight per day. Feed can be fed at 2-3 times 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****3rd August, 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 4th to 8th August, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (31st July to 2nd August, 2018)

Observed **34.7 mm** rainfall with **mainly cloudy to overcast sky**. Maximum temperature recorded ranged from **26.4 to 29.1 °C** and minimum of **21.0 to 22.4 °C** with mean relative humidity **95.0 %** max and **77.3 %** min was recorded in the past four days & average wind speed was **2.6 – 3.4 km/ hr**.

Weather forecast for next five days of Senapati (4th to 8th August, 2018)

Likely to have light to moderate rains upto Wednesday but heavy rains on Sunday and mainly cloudy to overcast sky with maximum temp. **27-28 °C** & minimum temp. **20-21 °C**. Relative humidity may reach upto **100 % (max RH)** & **86 % (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
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.
Ginger/ 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.
Turmeric	Rhizome formation	Taphrine leaf blotch and other leaf spot	- Spray Redomil MZ 72 WP @ 2g/lit water at least two times alternately with Sixer at 15 days interval.



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



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.
		• Ticks	• Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
		• Vaccination	• Vaccinate against FMD.
		• Management	• Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.
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.
		• Endoparasite/ Ectoparasite	• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		• Care & Management	• Inject Parid @ 1 ml/ 50 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.
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	Breeding	Pond and water	- Clean and clear water having 7.0-7.8 pH free from unwanted vegetation and insects. Water depth should be maintained at 1.0-1.5m.
		Fish	- Select good quality of carp brooders (2-4 years old) having more than 1kg b. wt. for Rohu, Mrigal, Catla, Kuri for seed production. For Pengba & Khabak b. wt. May be less than 300g.
		Hormone dose	- Ovotide/ Wova-FH/ Ovaprim@ 0.5ml/kg body weight can be injected to induce for spawning.
	nurseries		- Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. p ^H of pond water should be maintained at 7.0-7.5. Feeds should be provided 2-3 times a day @ 5-10 body weight per day. 20-30 million spawn can be stock in 1 ha.
	Grow -out	Pond and water	- Regular manuring at interval of 30 days with a slurry of RCD @ 1500kg/ha. Maintained p ^H of pond water at 7.0-7.5. Greenish colouration of water is desirable. If any change in colour, odour of water half of the water should be drain out and replace with fresh water.
		Fish	- 8000-10,000 fingerlings/ha can be stocked. Sampling of fish should be done by regular netting.
		Feed	- Well balanced feed fortified with vitamins and minerals should be provided @ 3-5% body weight per dav. Feed can be fed at 2-3 times 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****3rd August, 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 4th to 8th August, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (31st July to 2nd August, 2018)

Observed **34.7 mm** rainfall with **mainly cloudy to overcast sky**. Maximum temperature recorded ranged from **26.4 to 29.1 °C** and minimum of **21.0 to 22.4 °C** with mean relative humidity **95.0 %** max and **77.3 %** min was recorded in the past four days & average wind speed was **2.6 – 3.4 km/ hr**.

Weather forecast for next five days of Tamenglong (4th to 8th August, 2018)

Likely to have light to moderate rains upto Wednesday but heavy rains on Sunday and mainly cloudy to overcast sky with maximum temp. **27-28 °C** & minimum temp. **20-21 °C**. Relative humidity may reach upto **100 % (max RH)** & **75 % (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.
Ginger/ 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.

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

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”

Turmeric	Rhizome formation	Taphrine leaf blotch and other leaf spot	- Spray Redomil MZ 72 WP @ 2g/lit water at least two times alternately with Sixer at 15 days interval.
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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 <i>E.coli</i> 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.
		• Ticks	• Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
		• Vaccination	• Vaccinate against FMD.
		• Management	• Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.
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.
		• Endoparasite/ Ectoparasite	• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		• Care & Management	• Inject Parid @ 1 ml/ 50 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	Breeding	Pond and water	- Clean and clear water having 7.0-7.8 pH free from unwanted vegetation and insects. Water depth should be maintained at 1.0-1.5m.
		Fish	- Select good quality of carp brooders (2-4 years old) having more than 1kg b. wt. for Rohu, Mrigal, Catla, Kuri for seed production. For Pengba & Khabak b. wt. May be less than 300g.
		Hormone dose	- Ovitide/ Wova-FH/ Ovaprim@ 0.5ml/kg body weight can be injected to induce for spawning.
	nurseries		- Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. p^H of pond water should be maintained at 7.0-7.5. Feeds should be provided 2-3 times a day @ 5-10 body weight per day. 20-30 million spawn can be stock in 1 ha.
	Grow -out	Pond and water	- Regular manuring at interval of 30 days with a slurry of RCD @ 1500kg/ha. Maintained p^H of pond water at 7.0-7.5. Greenish colouration of water is desirable. If any change in colour, odour of water half of the water should be drain out and replace with fresh water.
		Fish	- 8000-10,000 fingerlings/ha can be stocked. Sampling of fish should be done by regular netting.
		Feed	- Well balanced feed fortified with vitamins and minerals should be provided @ 3-5% body weight per day. Feed can be fed at 2-3 times 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****3rd August, 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 4th to 8th August, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (31st July to 2nd August, 2018)

Observed **34.7 mm** rainfall with **mainly cloudy to overcast sky**. Maximum temperature recorded ranged from **26.4 to 29.1 °C** and minimum of **21.0 to 22.4 °C** with mean relative humidity **95.0 %** max and **77.3 %** min was recorded in the past four days & average wind speed was **2.6 – 3.4 km/ hr**.

Weather forecast for next five days of Thoubal (4th to 8th August, 2018)

Likely to have light to moderate rains upto Wednesday but heavy rains on Sunday and mainly cloudy to overcast sky with maximum temp. **29-32 °C** & minimum temp. **22-23 °C**. Relative humidity may reach upto **100 % (max RH)** & **85 % (min RH)**. The average wind speed may be **0-4 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.
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.
Ginger/ 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.

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

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”

Turmeric	Rhizome formation	Taphrine leaf blotch and other leaf spot	- Spray Redomil MZ 72 WP @ 2g/lit water at least two times alternately with Sixer at 15 days interval.
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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 <i>E.coli</i> 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.
		• Ticks	• Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
		• Vaccination	• Vaccinate against FMD.
		• Management	• Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.
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.
		• Endoparasite/ Ectoparasite	• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		• Care & Management	• Inject Parid @ 1 ml/ 50 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	Breeding	Pond and water	- Clean and clear water having 7.0-7.8 pH free from unwanted vegetation and insects. Water depth should be maintained at 1.0-1.5m.
		Fish	- Select good quality of carp brooders (2-4 years old) having more than 1kg b. wt. for Rohu, Mrigal, Catla, Kuri for seed production. For Pengba & Khabak b. wt. May be less than 300g.
		Hormone dose	- Ovitide/ Wova-FH/ Ovaprim@ 0.5ml/kg body weight can be injected to induce for spawning.
	nurseries		- Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. p ^H of pond water should be maintained at 7.0-7.5. Feeds should be provided 2-3 times a day @ 5-10 body weight per day. 20-30 million spawn can be stock in 1 ha.
	Grow -out	Pond and water	- Regular manuring at interval of 30 days with a slurry of RCD @ 1500kg/ha. Maintained p ^H of pond water at 7.0-7.5. Greenish colouration of water is desirable. If any change in colour, odour of water half of the water should be drain out and replace with fresh water.
		Fish	- 8000-10,000 fingerlings/ha can be stocked. Sampling of fish should be done by regular netting.
		Feed	- Well balanced feed fortified with vitamins and minerals should be provided @ 3-5% body weight per day. Feed can be fed at 2-3 times a day.

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



ICAR Research Complex for N.E.H. Region
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“Gramin Krishi Mausam Seva”

**MANIPUR BULLETIN****3rd August, 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 4th to 8th August, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (31st July to 2nd August, 2018)

Observed **34.7 mm** rainfall with **mainly cloudy to overcast sky**. Maximum temperature recorded ranged from **26.4 to 29.1 °C** and minimum of **21.0 to 22.4 °C** with mean relative humidity **95.0 %** max and **77.3 %** min was recorded in the past four days & average wind speed was **2.6 – 3.4 km/ hr**.

Weather forecast for next five days of Ukhrul (4th to 8th August, 2018)

Likely to have light to moderate rains upto Wednesday but heavy rains on Sunday and mainly cloudy to overcast sky with maximum temp. **27-28 °C** & minimum temp. **20-21 °C**. Relative humidity may reach upto **100 % (max RH)** & **91 % (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
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.
Ginger/ 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.
Turmeric	Rhizome formation	Taphrine leaf blotch and other leaf spot	- Spray Redomil MZ 72 WP @ 2g/lit water at least two times alternately with Sixer at 15 days interval.



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



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.
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Pig	All age groups except the young ones	• De-worming	• Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
		• Ticks	• Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
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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.
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		• Care & Management	• Inject Parid @ 1 ml/ 50 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.
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	Breeding	Pond and water	- Clean and clear water having 7.0-7.8 pH free from unwanted vegetation and insects. Water depth should be maintained at 1.0-1.5m.
		Fish	- Select good quality of carp brooders (2-4 years old) having more than 1kg b. wt. for Rohu, Mrigal, Catla, Kuri for seed production. For Pengba & Khabak b. wt. May be less than 300g.
		Hormone dose	- Ovotide/ Wova-FH/ Ovaprim@ 0.5ml/kg body weight can be injected to induce for spawning.
	nurseries		- Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. p ^H of pond water should be maintained at 7.0-7.5. Feeds should be provided 2-3 times a day @ 5-10 body weight per day. 20-30 million spawn can be stock in 1 ha.
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		Fish	- 8000-10,000 fingerlings/ha can be stocked. Sampling of fish should be done by regular netting.
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