



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

**MANIPUR BULLETIN****17th 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 18th to 22nd July, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (13th to 16th July, 2018)

Observed **6.9 mm** rainfall with **mainly cloudy to overcast sky** during past four days but partly cloudy during afternoon hours of 16th July. Maximum temperature recorded ranged from **28.9** to **31.1 °C** and minimum of **22.2** to **23.2 °C** with mean relative humidity **86.3 %** max and **65.0 %** min was recorded in the past four days & average wind speed was **3.2 – 4.2 km/hr.**

Weather forecast for next five days of Imphal East (18th to 22nd July, 2018)

Likely to have heavy rains from Saturday and mainly cloudy to overcast sky with maximum temp. **28-29 °C** & minimum temp. **22-23 °C**. Relative humidity may reach upto **100 %** (max RH) & **61 %** (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	Nursery and transplanting to tillering (Kharif rice)		<ul style="list-style-type: none"> - Transplant 21-25 days old seedlings in the main field within 2 days after uprooting. - Seedling can be transplanted within 3rd week of July (for late transplanting). - Weed control: Apply Butachlor @25kg/ha within one week of transplanting. - If the crop is in tillering stage, weeding may be done manually or by using conoweeder followed by top dressing with Urea @33kg/ ha.
Kharif Maize	Vegetative to pre-flowering		<ul style="list-style-type: none"> - For the crops in vegetative phase, weeding may be done before rain by hand or apply Simazine @ 0.75 kg a.i. / ha. - Maintain proper drainage system to avoid water logging due to rains in next five days. - To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
Soybean/ Groundnut	Vegetative to flowering		<ul style="list-style-type: none"> - Hand weeding should be done before 30-35 days after sowing soybean and groundnut to avoid hairy caterpillar. Also, earthing-up and thinning may be done after rains. - Monitor for insect pest infestation.
Blackgram/ Rice Bean	Vegetative		<ul style="list-style-type: none"> - Weeding may be done after rain if the weed population is high. - Monitor for insect pest infestation.
Seeds storage	Post-harvest management		<p>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.</p> <p>For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.</p>
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Chilli	Fruiting to harvesting	- Anthracnose	- After harvesting mature fruits, spray Mancozeb @ 2 g/ lit of water at 7 to 10 days interval twice or thrice depending upon the incidence.
Tree bean	Transplanting/ Fertilizer application		<ul style="list-style-type: none"> - One year or more than a year old quality seedling may be transplanted in the pit. Recommended spacing is 10x10 m from plant to plant and row to row. - At the time of planting apply 5 kg FYM + 30 gm lime+30 gm linden 5% dust + 5 ml Chlorpyrifos 20 EC + 1.5 g Mancozeb + Carbendazim per pit. - Regular weeding should be done especially during initial stage of plantation. - As tree bean takes about 6-8 years to bear fruits, additional income can be generated from intercropping with vegetables or small fruit crops. - For 7 yrs and above and for bearing plants apply 7 kg FYM, 120 Kg urea, 300 gm SSP, 80 gm MOP, 1 Kg lime should be applied.
Citrus		Leaf minor	- Spray Imidacloprid 70% W.G. (Admire) @ 0.5g/ litre of water or Tatamida (Imidacloprid 17%) S.L.@ 1ml/ litre of water against leaf minor twice or thrice at 7 days interval.
		Greening	- Spray Streptocycline @ 1g/10 lit of water or Tetracycline@5g/10 litre water.
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.
Cauliflower	Nursery		- Sow cauliflower seeds (early varieties like Early Himlata, White shot, etc.). Apply 1-2 kg FYM/ m ² of nursery bed. Drench the soil with Captan 50 W.P. Till



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



(Early)			germination the cover bed with paddy straw.
Turmeric	Vegetative	Leaf Spot and leaf blotch	- For grown up plants spray Dithan M45 @ 2 to 2.5 ml/lit of water as prophylactic measures against Leaf Spot and leaf blotch.

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.
		• 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



Phone: 2414654, 2414260, 2414749 ; Fax : (0385) 2414654, 2414749

E-mail: agromet_mnp@yahoo.co.uk

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





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

**MANIPUR BULLETIN****17th 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 18th to 22nd July, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (13th to 16th July, 2018)

Observed **6.9 mm** rainfall with **mainly cloudy to overcast sky** during past four days but partly cloudy during afternoon hours of 16th July. Maximum temperature recorded ranged from **28.9** to **31.1 °C** and minimum of **22.2** to **23.2 °C** with mean relative humidity **86.3 %** max and **65.0 %** min was recorded in the past four days & average wind speed was **3.2 – 4.2 km/hr.**

Weather forecast for next five days of Imphal West (18th to 22nd July, 2018)

Likely to have heavy rains from Saturday and mainly cloudy to overcast sky with maximum temp. **28-29 °C** & minimum temp. **22-23 °C**. Relative humidity may reach upto **100 %** (max RH) & **80 %** (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	Nursery and transplanting to tillering (Kharif rice)		<ul style="list-style-type: none"> - Transplant 21-25 days old seedlings in the main field within 2 days after uprooting. - Seedling can be transplanted within 3rd week of July (for late transplanting). - Weed control: Apply Butachlor @25kg/ha within one week of transplanting. - If the crop is in tillering stage, weeding may be done manually or by using conoweeder followed by top dressing with Urea @33kg/ ha.
Kharif Maize	Vegetative to pre-flowering		<ul style="list-style-type: none"> - For the crops in vegetative phase, weeding may be done before rain by hand or apply Simazine @ 0.75 kg a.i. / ha. - Maintain proper drainage system to avoid water logging due to rains in next five days. - To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
Soybean/ Groundnut	Vegetative to flowering		<ul style="list-style-type: none"> - Hand weeding should be done before 30-35 days after sowing soybean and groundnut to avoid hairy caterpillar. Also, earthing-up and thinning may be done after rains. - Monitor for insect pest infestation.
Blackgram/ Rice Bean	Vegetative		<ul style="list-style-type: none"> - Weeding may be done after rain if the weed population is high. - Monitor for insect pest infestation.
Seeds storage	Post-harvest management		<p>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.</p> <p>For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.</p>
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Chilli	Fruiting to harvesting	- Anthracnose	- After harvesting mature fruits, spray Mancozeb @ 2 g/ lit of water at 7 to 10 days interval twice or thrice depending upon the incidence.
Tree bean	Transplanting/ Fertilizer application		<ul style="list-style-type: none"> - One year or more than a year old quality seedling may be transplanted in the pit. Recommended spacing is 10x10 m from plant to plant and row to row. - At the time of planting apply 5 kg FYM + 30 gm lime+30 gm linden 5% dust + 5 ml Chlorpyrifos 20 EC + 1.5 g Mancozeb + Carbendazim per pit. - Regular weeding should be done especially during initial stage of plantation. - As tree bean takes about 6-8 years to bear fruits, additional income can be generated from intercropping with vegetables or small fruit crops. - For 7 yrs and above and for bearing plants apply 7 kg FYM, 120 Kg urea, 300 gm SSP, 80 gm MOP, 1 Kg lime should be applied.
Citrus		Leaf minor	- Spray Imidacloprid 70% W.G. (Admire) @ 0.5g/ litre of water or Tatamida (Imidacloprid 17%) S.L.@ 1ml/ litre of water against leaf minor twice or thrice at 7 days interval.
		Greening	- Spray Streptocycline @ 1g/10 lit of water or Tetracycline@5g/10 litre water.
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.
Cauliflower	Nursery		- Sow cauliflower seeds (early varieties like Early Himlata, White shot, etc.). Apply 1-2 kg FYM/ m ² of nursery bed. Drench the soil with Captan 50 W.P. Till



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



(Early)			germination the cover bed with paddy straw.
Turmeric	Vegetative	Leaf Spot and leaf blotch	- For grown up plants spray Dithan M45 @ 2 to 2.5 ml/lit of water as prophylactic measures against Leaf Spot and leaf blotch.

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.
		• 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



Phone: 2414654, 2414260, 2414749 ; Fax : (0385) 2414654, 2414749

E-mail: agromet_mnp@yahoo.co.uk

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





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

**MANIPUR BULLETIN****17th 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 18th to 22nd July, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (13th to 16th July, 2018)

Observed **6.9 mm** rainfall with **mainly cloudy to overcast sky** during past four days but partly cloudy during afternoon hours of 16th July. Maximum temperature recorded ranged from **28.9 to 31.1 °C** and minimum of **22.2 to 23.2 °C** with mean relative humidity **86.3 %** max and **65.0 %** min was recorded in the past four days & average wind speed was **3.2 – 4.2 km/ hr.**

Weather forecast for next five days of Senapati (18th to 22nd July, 2018)

Likely to have heavy rains from Saturday and mainly cloudy to overcast sky with maximum temp. **26-28 °C** & minimum temp. **20-22 °C**. Relative humidity may reach upto **97 %** (max RH) & **73 %** (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	Nursery and transplanting to tillering (Kharif rice)		<ul style="list-style-type: none"> - Transplant 21-25 days old seedlings in the main field within 2 days after uprooting. - Seedling can be transplanted within 3rd week of July (for late transplanting). - Weed control: Apply Butachlor @25kg/ha within one week of transplanting. - If the crop is in tillering stage, weeding may be done manually or by using conoweeder followed by top dressing with Urea @33kg/ ha.
Kharif Maize	Vegetative to pre-flowering		<ul style="list-style-type: none"> - For the crops in vegetative phase, weeding may be done before rain by hand or apply Simazine @ 0.75 kg a.i. / ha. - Maintain proper drainage system to avoid water logging due to rains in next five days. - To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
Soybean/ Groundnut	Vegetative to flowering		<ul style="list-style-type: none"> - Hand weeding should be done before 30-35 days after sowing soybean and groundnut to avoid hairy caterpillar. Also, earthing-up and thinning may be done after rains. - Monitor for insect pest infestation.
Blackgram/ Rice Bean	Vegetative		<ul style="list-style-type: none"> - Weeding may be done after rain if the weed population is high. - Monitor for insect pest infestation.
Seeds storage	Post-harvest management		<p>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.</p> <p>For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.</p>
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Tree bean	Transplanting/ Fertilizer application		<ul style="list-style-type: none"> - One year or more than a year old quality seedling may be transplanted in the pit. Recommended spacing is 10x10 m from plant to plant and row to row. - At the time of planting apply 5 kg FYM + 30 gm lime+30 gm linden 5% dust + 5 ml Chlorpyrifos 20 EC + 1.5 g Mancozeb + Carbendazim per pit. - Regular weeding should be done especially during initial stage of plantation. - As tree bean takes about 6-8 years to bear fruits, additional income can be generated from intercropping with vegetables or small fruit crops. - For 7 yrs and above and for bearing plants apply 7 kg FYM, 120 Kg urea, 300 gm SSP, 80 gm MOP, 1 Kg lime should be applied.
Citrus		Leaf minor	- Spray Imidacloprid 70% W.G. (Admire) @ 0.5g/ litre of water or Tatamida (Imidacloprid 17%) S.L.@ 1ml/ litre of water against leaf minor twice or thrice at 7 days interval.
		Greening	- Spray Streptocycline @ 1g/10 lit of water or Tetracycline@5g/10 litre water.
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.
Turmeric	Vegetative	Leaf Spot and leaf blotch	- For grown up plants spray Dithan M45 @ 2 to 2.5 ml/lit of water as prophylactic measures against Leaf Spot and leaf blotch.
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.			



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



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. • 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****17th 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 18th to 22nd July, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (13th to 16th July, 2018)

Observed **6.9 mm** rainfall with **mainly cloudy to overcast sky** during past four days but partly cloudy during afternoon hours of 16th July. Maximum temperature recorded ranged from **28.9** to **31.1 °C** and minimum of **22.2** to **23.2 °C** with mean relative humidity **86.3 %** max and **65.0 %** min was recorded in the past four days & average wind speed was **3.2 – 4.2 km/hr.**

Weather forecast for next five days of Tamenglong (18th to 22nd July, 2018)

Likely to have heavy rains from Saturday and mainly cloudy to overcast sky with maximum temp. **27-28 °C** & minimum temp. **21-22 °C**. Relative humidity may reach upto **100 %** (max RH) & **61 %** (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	Nursery and transplanting to tillering (Kharif rice)		<ul style="list-style-type: none"> - Transplant 21-25 days old seedlings in the main field within 2 days after uprooting. - Seedling can be transplanted within 3rd week of July (for late transplanting). - Weed control: Apply Butachlor @25kg/ha within one week of transplanting. - If the crop is in tillering stage, weeding may be done manually or by using conoweeder followed by top dressing with Urea @33kg/ ha.
Kharif Maize	Vegetative to pre-flowering		<ul style="list-style-type: none"> - For the crops in vegetative phase, weeding may be done before rain by hand or apply Simazine @ 0.75 kg a.i. / ha. - Maintain proper drainage system to avoid water logging due to rains in next five days. - To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
Soybean/ Groundnut	Vegetative to flowering		<ul style="list-style-type: none"> - Hand weeding should be done before 30-35 days after sowing soybean and groundnut to avoid hairy caterpillar. Also, earthing-up and thinning may be done after rains. - Monitor for insect pest infestation.
Blackgram/ Rice Bean	Vegetative		<ul style="list-style-type: none"> - Weeding may be done after rain if the weed population is high. - Monitor for insect pest infestation.
Seeds storage	Post-harvest management		<p>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.</p> <p>For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.</p>
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Chilli	Fruiting to harvesting	- Anthracnose	- After harvesting mature fruits, spray Mancozeb @ 2 g/ lit of water at 7 to 10 days interval twice or thrice depending upon the incidence.
Tree bean	Transplanting/ Fertilizer application		<ul style="list-style-type: none"> - One year or more than a year old quality seedling may be transplanted in the pit. Recommended spacing is 10x10 m from plant to plant and row to row. - At the time of planting apply 5 kg FYM + 30 gm lime+30 gm linden 5% dust + 5 ml Chlorpyrifos 20 EC + 1.5 g Mancozeb + Carbendazim per pit. - Regular weeding should be done especially during initial stage of plantation. - As tree bean takes about 6-8 years to bear fruits, additional income can be generated from intercropping with vegetables or small fruit crops. - For 7 yrs and above and for bearing plants apply 7 kg FYM, 120 Kg urea, 300 gm SSP, 80 gm MOP, 1 Kg lime should be applied.
Citrus		Leaf minor	- Spray Imidacloprid 70% W.G. (Admire) @ 0.5g/ litre of water or Tatamida (Imidacloprid 17%) S.L.@ 1ml/ litre of water against leaf minor twice or thrice at 7 days interval.
		Greening	- Spray Streptocycline @ 1g/10 lit of water or Tetracycline@5g/10 litre water.
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.
Cauliflower	Nursery		- Sow cauliflower seeds (early varieties like Early Himlata, White shot, etc.). Apply 1-2 kg FYM/ m ² of nursery bed. Drench the soil with Captan 50 W.P. Till



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



(Early)			germination the cover bed with paddy straw.
Turmeric	Vegetative	Leaf Spot and leaf blotch	- For grown up plants spray Dithan M45 @ 2 to 2.5 ml/lit of water as prophylactic measures against Leaf Spot and leaf blotch.

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.
		• 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



Phone: 2414654, 2414260, 2414749 ; Fax : (0385) 2414654, 2414749

E-mail: agromet_mnp@yahoo.co.uk

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





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

**MANIPUR BULLETIN****17th 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 18th to 22nd July, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (13th to 16th July, 2018)

Observed **6.9 mm** rainfall with **mainly cloudy to overcast sky** during past four days but partly cloudy during afternoon hours of 16th July. Maximum temperature recorded ranged from **28.9** to **31.1 °C** and minimum of **22.2** to **23.2 °C** with mean relative humidity **86.3 %** max and **65.0 %** min was recorded in the past four days & average wind speed was **3.2 – 4.2 km/hr.**

Weather forecast for next five days of Thoubal (18th to 22nd July, 2018)

Likely to have heavy rains from Saturday and mainly cloudy to overcast sky with maximum temp. **28-29 °C** & minimum temp. **22-23 °C**. Relative humidity may reach upto **100 %** (max RH) & **70 %** (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	Nursery and transplanting to tillering (Kharif rice)		<ul style="list-style-type: none"> - Transplant 21-25 days old seedlings in the main field within 2 days after uprooting. - Seedling can be transplanted within 3rd week of July (for late transplanting). - Weed control: Apply Butachlor @25kg/ha within one week of transplanting. - If the crop is in tillering stage, weeding may be done manually or by using conoweeder followed by top dressing with Urea @33kg/ ha.
Kharif Maize	Vegetative to pre-flowering		<ul style="list-style-type: none"> - For the crops in vegetative phase, weeding may be done before rain by hand or apply Simazine @ 0.75 kg a.i. / ha. - Maintain proper drainage system to avoid water logging due to rains in next five days. - To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
Soybean/ Groundnut	Vegetative to flowering		<ul style="list-style-type: none"> - Hand weeding should be done before 30-35 days after sowing soybean and groundnut to avoid hairy caterpillar. Also, earthing-up and thinning may be done after rains. - Monitor for insect pest infestation.
Blackgram/ Rice Bean	Vegetative		<ul style="list-style-type: none"> - Weeding may be done after rain if the weed population is high. - Monitor for insect pest infestation.
Seeds storage	Post-harvest management		<p>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.</p> <p>For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.</p>
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Chilli	Fruiting to harvesting	- Anthracnose	- After harvesting mature fruits, spray Mancozeb @ 2 g/ lit of water at 7 to 10 days interval twice or thrice depending upon the incidence.
Tree bean	Transplanting/ Fertilizer application		<ul style="list-style-type: none"> - One year or more than a year old quality seedling may be transplanted in the pit. Recommended spacing is 10x10 m from plant to plant and row to row. - At the time of planting apply 5 kg FYM + 30 gm lime+30 gm linden 5% dust + 5 ml Chlorpyrifos 20 EC + 1.5 g Mancozeb + Carbendazim per pit. - Regular weeding should be done especially during initial stage of plantation. - As tree bean takes about 6-8 years to bear fruits, additional income can be generated from intercropping with vegetables or small fruit crops. - For 7 yrs and above and for bearing plants apply 7 kg FYM, 120 Kg urea, 300 gm SSP, 80 gm MOP, 1 Kg lime should be applied.
Citrus		Leaf minor	- Spray Imidacloprid 70% W.G. (Admire) @ 0.5g/ litre of water or Tatamida (Imidacloprid 17%) S.L.@ 1ml/ litre of water against leaf minor twice or thrice at 7 days interval.
		Greening	- Spray Streptocycline @ 1g/10 lit of water or Tetracycline@5g/10 litre water.
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.
Cauliflower	Nursery		- Sow cauliflower seeds (early varieties like Early Himlata, White shot, etc.). Apply 1-2 kg FYM/ m ² of nursery bed. Drench the soil with Captan 50 W.P. Till



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



(Early)			germination the cover bed with paddy straw.
Turmeric	Vegetative	Leaf Spot and leaf blotch	- For grown up plants spray Dithan M45 @ 2 to 2.5 ml/lit of water as prophylactic measures against Leaf Spot and leaf blotch.

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.
		• 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



Phone: 2414654, 2414260, 2414749 ; Fax : (0385) 2414654, 2414749

E-mail: agromet_mnp@yahoo.co.uk

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





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

**MANIPUR BULLETIN****17th 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 18th to 22nd July, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (13th to 16th July, 2018)

Observed **6.9 mm** rainfall with **mainly cloudy to overcast sky** during past four days but partly cloudy during afternoon hours of 16th July. Maximum temperature recorded ranged from **28.9 to 31.1 °C** and minimum of **22.2 to 23.2 °C** with mean relative humidity **86.3 %** max and **65.0 %** min was recorded in the past four days & average wind speed was **3.2 – 4.2 km/ hr.**

Weather forecast for next five days of Ukhrul (18th to 22nd July, 2018)

Likely to have heavy rains from Saturday and mainly cloudy to overcast sky with maximum temp. **26-27 °C** & minimum temp. **21-22 °C**. Relative humidity may reach upto **100 %** (max RH) & **73 %** (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	Nursery and transplanting to tillering (Kharif rice)		<ul style="list-style-type: none"> - Transplant 21-25 days old seedlings in the main field within 2 days after uprooting. - Seedling can be transplanted within 3rd week of July (for late transplanting). - Weed control: Apply Butachlor @25kg/ha within one week of transplanting. - If the crop is in tillering stage, weeding may be done manually or by using conoweeder followed by top dressing with Urea @33kg/ ha.
Kharif Maize	Vegetative to pre-flowering		<ul style="list-style-type: none"> - For the crops in vegetative phase, weeding may be done before rain by hand or apply Simazine @ 0.75 kg a.i. / ha. - Maintain proper drainage system to avoid water logging due to rains in next five days. - To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
Soybean/ Groundnut	Vegetative to flowering		<ul style="list-style-type: none"> - Hand weeding should be done before 30-35 days after sowing soybean and groundnut to avoid hairy caterpillar. Also, earthing-up and thinning may be done after rains. - Monitor for insect pest infestation.
Blackgram/ Rice Bean	Vegetative		<ul style="list-style-type: none"> - Weeding may be done after rain if the weed population is high. - Monitor for insect pest infestation.
Seeds storage	Post-harvest management		<p>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.</p> <p>For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.</p>
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Tree bean	Transplanting/ Fertilizer application		<ul style="list-style-type: none"> - One year or more than a year old quality seedling may be transplanted in the pit. Recommended spacing is 10x10 m from plant to plant and row to row. - At the time of planting apply 5 kg FYM + 30 gm lime+30 gm linden 5% dust + 5 ml Chlorpyrifos 20 EC + 1.5 g Mancozeb + Carbendazim per pit. - Regular weeding should be done especially during initial stage of plantation. - As tree bean takes about 6-8 years to bear fruits, additional income can be generated from intercropping with vegetables or small fruit crops. - For 7 yrs and above and for bearing plants apply 7 kg FYM, 120 Kg urea, 300 gm SSP, 80 gm MOP, 1 Kg lime should be applied.
Citrus		Leaf minor	- Spray Imidacloprid 70% W.G. (Admire) @ 0.5g/ litre of water or Tatamida (Imidacloprid 17%) S.L.@ 1ml/ litre of water against leaf minor twice or thrice at 7 days interval.
		Greening	- Spray Streptocycline @ 1g/10 lit of water or Tetracycline@5g/10 litre water.
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.
Turmeric	Vegetative	Leaf Spot and leaf blotch	- For grown up plants spray Dithan M45 @ 2 to 2.5 ml/lit of water as prophylactic measures against Leaf Spot and leaf blotch.



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.
		• 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, ovate 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****17th July, 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 18th to 22nd July, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (13th to 16th July, 2018)

Observed **6.9 mm** rainfall with **mainly cloudy to overcast sky** during past four days but partly cloudy during afternoon hours of 16th July. Maximum temperature recorded ranged from **28.9** to **31.1 °C** and minimum of **22.2** to **23.2 °C** with mean relative humidity **86.3 %** max and **65.0 %** min was recorded in the past four days & average wind speed was **3.2 – 4.2 km/hr.**

Weather forecast for next five days of Bishnupur (18th to 22nd July, 2018)

Likely to have heavy rains from Saturday and mainly cloudy to overcast sky with maximum temp. **28-29 °C** & minimum temp. **22-23 °C**. Relative humidity may reach upto **100 %** (max RH) & **61 %** (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	Nursery and transplanting to tillering (Kharif rice)		<ul style="list-style-type: none"> - Transplant 21-25 days old seedlings in the main field within 2 days after uprooting. - Seedling can be transplanted within 3rd week of July (for late transplanting). - Weed control: Apply Butachlor @25kg/ha within one week of transplanting. - If the crop is in tillering stage, weeding may be done manually or by using conoweeder followed by top dressing with Urea @33kg/ ha.
Kharif Maize	Vegetative to pre-flowering		<ul style="list-style-type: none"> - For the crops in vegetative phase, weeding may be done before rain by hand or apply Simazine @ 0.75 kg a.i. / ha. - Maintain proper drainage system to avoid water logging due to rains in next five days. - To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
Soybean/ Groundnut	Vegetative to flowering		<ul style="list-style-type: none"> - Hand weeding should be done before 30-35 days after sowing soybean and groundnut to avoid hairy caterpillar. Also, earthing-up and thinning may be done after rains. - Monitor for insect pest infestation.
Blackgram/ Rice Bean	Vegetative		<ul style="list-style-type: none"> - Weeding may be done after rain if the weed population is high. - Monitor for insect pest infestation.
Seeds storage	Post-harvest management		<p>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.</p> <p>For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.</p>
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Chilli	Fruiting to harvesting	- Anthracnose	- After harvesting mature fruits, spray Mancozeb @ 2 g/ lit of water at 7 to 10 days interval twice or thrice depending upon the incidence.
Tree bean	Transplanting/ Fertilizer application		<ul style="list-style-type: none"> - One year or more than a year old quality seedling may be transplanted in the pit. Recommended spacing is 10x10 m from plant to plant and row to row. - At the time of planting apply 5 kg FYM + 30 gm lime+30 gm linden 5% dust + 5 ml Chlorpyrifos 20 EC + 1.5 g Mancozeb + Carbendazim per pit. - Regular weeding should be done especially during initial stage of plantation. - As tree bean takes about 6-8 years to bear fruits, additional income can be generated from intercropping with vegetables or small fruit crops. - For 7 yrs and above and for bearing plants apply 7 kg FYM, 120 Kg urea, 300 gm SSP, 80 gm MOP, 1 Kg lime should be applied.
Citrus		Leaf minor	- Spray Imidacloprid 70% W.G. (Admire) @ 0.5g/ litre of water or Tatamida (Imidacloprid 17%) S.L.@ 1ml/ litre of water against leaf minor twice or thrice at 7 days interval.
		Greening	- Spray Streptocycline @ 1g/10 lit of water or Tetracycline@5g/10 litre water.
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.
Cauliflower	Nursery		- Sow cauliflower seeds (early varieties like Early Himlata, White shot, etc.). Apply 1-2 kg FYM/ m ² of nursery bed. Drench the soil with Captan 50 W.P. Till



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



(Early)			germination the cover bed with paddy straw.
Turmeric	Vegetative	Leaf Spot and leaf blotch	- For grown up plants spray Dithan M45 @ 2 to 2.5 ml/lit of water as prophylactic measures against Leaf Spot and leaf blotch.

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.
		• 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



Phone: 2414654, 2414260, 2414749 ; Fax : (0385) 2414654, 2414749

E-mail: agromet_mnp@yahoo.co.uk

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





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

**MANIPUR BULLETIN****17th July, 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 18th to 22nd July, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (13th to 16th July, 2018)

Observed **6.9 mm** rainfall with **mainly cloudy to overcast sky** during past four days but partly cloudy during afternoon hours of 16th July. Maximum temperature recorded ranged from **28.9** to **31.1 °C** and minimum of **22.2** to **23.2 °C** with mean relative humidity **86.3 %** max and **65.0 %** min was recorded in the past four days & average wind speed was **3.2 – 4.2 km/hr.**

Weather forecast for next five days of Chandel (18th to 22nd July, 2018)

Likely to have heavy rains from Saturday and mainly cloudy to overcast sky with maximum temp. **26-28 °C** & minimum temp. **21-22 °C**. Relative humidity may reach upto **100 %** (max RH) & **66 %** (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	Nursery and transplanting to tillering (Kharif rice)		<ul style="list-style-type: none"> - Transplant 21-25 days old seedlings in the main field within 2 days after uprooting. - Seedling can be transplanted within 3rd week of July (for late transplanting). - Weed control: Apply Butachlor @25kg/ha within one week of transplanting. - If the crop is in tillering stage, weeding may be done manually or by using conoweeder followed by top dressing with Urea @33kg/ ha.
Kharif Maize	Vegetative to pre-flowering		<ul style="list-style-type: none"> - For the crops in vegetative phase, weeding may be done before rain by hand or apply Simazine @ 0.75 kg a.i. / ha. - Maintain proper drainage system to avoid water logging due to rains in next five days. - To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
Soybean/ Groundnut	Vegetative to flowering		<ul style="list-style-type: none"> - Hand weeding should be done before 30-35 days after sowing soybean and groundnut to avoid hairy caterpillar. Also, earthing-up and thinning may be done after rains. - Monitor for insect pest infestation.
Blackgram/ Rice Bean	Vegetative		<ul style="list-style-type: none"> - Weeding may be done after rain if the weed population is high. - Monitor for insect pest infestation.
Seeds storage	Post-harvest management		<p>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.</p> <p>For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.</p>
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Chilli	Fruiting to harvesting	- Anthracnose	- After harvesting mature fruits, spray Mancozeb @ 2 g/ lit of water at 7 to 10 days interval twice or thrice depending upon the incidence.
Tree bean	Transplanting/ Fertilizer application		<ul style="list-style-type: none"> - One year or more than a year old quality seedling may be transplanted in the pit. Recommended spacing is 10x10 m from plant to plant and row to row. - At the time of planting apply 5 kg FYM + 30 gm lime+30 gm linden 5% dust + 5 ml Chlorpyrifos 20 EC + 1.5 g Mancozeb + Carbendazim per pit. - Regular weeding should be done especially during initial stage of plantation. - As tree bean takes about 6-8 years to bear fruits, additional income can be generated from intercropping with vegetables or small fruit crops. - For 7 yrs and above and for bearing plants apply 7 kg FYM, 120 Kg urea, 300 gm SSP, 80 gm MOP, 1 Kg lime should be applied.
Citrus		Leaf minor	- Spray Imidacloprid 70% W.G. (Admire) @ 0.5g/ litre of water or Tatamida (Imidacloprid 17%) S.L.@ 1ml/ litre of water against leaf minor twice or thrice at 7 days interval.
		Greening	- Spray Streptocycline @ 1g/10 lit of water or Tetracycline@5g/10 litre water.
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.
Cauliflower	Nursery		- Sow cauliflower seeds (early varieties like Early Himlata, White shot, etc.). Apply 1-2 kg FYM/ m ² of nursery bed. Drench the soil with Captan 50 W.P. Till



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



(Early)			germination the cover bed with paddy straw.
Turmeric	Vegetative	Leaf Spot and leaf blotch	- For grown up plants spray Dithan M45 @ 2 to 2.5 ml/lit of water as prophylactic measures against Leaf Spot and leaf blotch.

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.
		• 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



Phone: 2414654, 2414260, 2414749 ; Fax : (0385) 2414654, 2414749

E-mail: agromet_mnp@yahoo.co.uk

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





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

**MANIPUR BULLETIN****17th 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 18th to 22nd July, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (13th to 16th July, 2018)

Observed **6.9 mm** rainfall with **mainly cloudy to overcast sky** during past four days but partly cloudy during afternoon hours of 16th July. Maximum temperature recorded ranged from **28.9** to **31.1 °C** and minimum of **22.2** to **23.2 °C** with mean relative humidity **86.3 %** max and **65.0 %** min was recorded in the past four days & average wind speed was **3.2 – 4.2 km/hr.**

Weather forecast for next five days of Churachandpur (18th to 22nd July, 2018)

Likely to have heavy rains from Saturday and mainly cloudy to overcast sky with maximum temp. **26-27 °C** & minimum temp. **21-22 °C**. Relative humidity may reach upto **100 %** (max RH) & **71 %** (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	Nursery and transplanting to tillering (Kharif rice)		<ul style="list-style-type: none"> - Transplant 21-25 days old seedlings in the main field within 2 days after uprooting. - Seedling can be transplanted within 3rd week of July (for late transplanting). - Weed control: Apply Butachlor @25kg/ha within one week of transplanting. - If the crop is in tillering stage, weeding may be done manually or by using conoweeder followed by top dressing with Urea @33kg/ ha.
Kharif Maize	Vegetative to pre-flowering		<ul style="list-style-type: none"> - For the crops in vegetative phase, weeding may be done before rain by hand or apply Simazine @ 0.75 kg a.i. / ha. - Maintain proper drainage system to avoid water logging due to rains in next five days. - To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
Soybean/ Groundnut	Vegetative to flowering		<ul style="list-style-type: none"> - Hand weeding should be done before 30-35 days after sowing soybean and groundnut to avoid hairy caterpillar. Also, earthing-up and thinning may be done after rains. - Monitor for insect pest infestation.
Blackgram/ Rice Bean	Vegetative		<ul style="list-style-type: none"> - Weeding may be done after rain if the weed population is high. - Monitor for insect pest infestation.
Seeds storage	Post-harvest management		<p>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.</p> <p>For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.</p>
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Chilli	Fruiting to harvesting	- Anthracnose	- After harvesting mature fruits, spray Mancozeb @ 2 g/ lit of water at 7 to 10 days interval twice or thrice depending upon the incidence.
Tree bean	Transplanting/ Fertilizer application		<ul style="list-style-type: none"> - One year or more than a year old quality seedling may be transplanted in the pit. Recommended spacing is 10x10 m from plant to plant and row to row. - At the time of planting apply 5 kg FYM + 30 gm lime+30 gm linden 5% dust + 5 ml Chlorpyrifos 20 EC + 1.5 g Mancozeb + Carbendazim per pit. - Regular weeding should be done especially during initial stage of plantation. - As tree bean takes about 6-8 years to bear fruits, additional income can be generated from intercropping with vegetables or small fruit crops. - For 7 yrs and above and for bearing plants apply 7 kg FYM, 120 Kg urea, 300 gm SSP, 80 gm MOP, 1 Kg lime should be applied.
Citrus		Leaf minor	- Spray Imidacloprid 70% W.G. (Admire) @ 0.5g/ litre of water or Tatamida (Imidacloprid 17%) S.L.@ 1ml/ litre of water against leaf minor twice or thrice at 7 days interval.
		Greening	- Spray Streptocycline @ 1g/10 lit of water or Tetracycline@5g/10 litre water.
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.
Cauliflower	Nursery		- Sow cauliflower seeds (early varieties like Early Himlata, White shot, etc.). Apply 1-2 kg FYM/ m ² of nursery bed. Drench the soil with Captan 50 W.P. Till



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



(Early)			germination the cover bed with paddy straw.
Turmeric	Vegetative	Leaf Spot and leaf blotch	- For grown up plants spray Dithan M45 @ 2 to 2.5 ml/lit of water as prophylactic measures against Leaf Spot and leaf blotch.

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.
		• 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



Phone: 2414654, 2414260, 2414749 ; Fax : (0385) 2414654, 2414749

E-mail: agromet_mnp@yahoo.co.uk

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

