



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



**MANIPUR BULLETIN**

**19<sup>th</sup> June, 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 20<sup>th</sup> to 24<sup>th</sup> June, 2018 as below:

<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (15<sup>th</sup> to 18<sup>th</sup> June, 2018)</b>                  Observed <b>21.8 mm</b> rainfall with <b>mainly cloudy to overcast sky</b> but <b>mainly clear to partly cloudy sky</b> on 17<sup>th</sup> and 18<sup>th</sup> morning. Maximum temperature recorded ranged from <b>26.7</b> to <b>30.4 °C</b> and minimum of <b>20.8</b> to <b>21.6 °C</b> with mean relative humidity <b>89.5 %</b> max and <b>67.3 %</b> min was recorded in the past three days with average wind speed was <b>3.8 – 6.1 km/ hr.</b></p>	<p><b>Weather forecast for next five days of Bishnupur (20<sup>th</sup> to 24<sup>th</sup> June, 2018)</b>                  Likely to have light rains during next five days and partly cloudy to mainly cloudy sky with maximum temp. <b>30-32 °C</b> &amp; minimum temp. <b>23-24 °C</b>. Relative humidity may reach upto <b>100 %</b> (max RH) &amp; <b>67 %</b> (min RH). The average wind speed may be <b>2 km/hr.</b></p>
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<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Grain filling stage (Pre-kharif rice)	Bacterial leaf blight	- Construct bands around the crop field to maintain water level at 5-8 cm. - Drain out excess water from the field accumulated due to heavy rains.
		Sheath blight/ sheath rot	- Spray Streptocycline @ 1gm/15 litres of water. - Apply Propiconazole @ 15ml/ 15 litres water after rains.
	Nursery and land preparation of main field (Kharif rice)		- Recommended varieties: RC Maniphou-7, RC Maniphou- 10 and RC Maniphou-13. Raise rice nursery. - Encircle the nursery plot with happa after sowing at least for 10 days so that the seeds are not carried away if water level increases due to rains. - Land preparation of main field may be done for transplanting rice seedling and submerge it for 15- 20 days. Apply 65 kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling before transplanting.
<b>Kharif Maize</b>	Vegetative		- Sowing may be done. - For the crops in vegetative phase, weeding may be done after rain by hand or apply Simazine @ 0.75 kg a.i./ ha.
<b>Soybean</b>	Sowing		- Sow seed @ 40-45 kg/ha or 10-11.3 kg of seed/ sangam and the recommended variety is J.S.335. Sowing may be done at spacing of 45cm x 30cm. Treat seeds with Nativo@2g/kg seeds or with Bavistin@2.5g/kg seed or with Thiram. -Weeding may be done if the weed population is high.
<b>Groundnut</b>	Sowing		- Seed rate is 100 – 110 kg/ha and the recommended varieties are ICGS-75 & JL-24. Sow seeds at spacing 30cm x 15cm after rains. Treat seeds with Imidacloprid @ 2ml/ litre water or Bavistin @ 2.5g/ kg seed or with Thiram. - Weeding may be done if the weed population is high.
<b>Blackgram/ Rice Bean</b>	Sowing		- Sowing may be done by broadcasting or dibbling. Plot must be kept weed free to avoid insect/ pest. Weeding may be done if the weed population is high.
<b>Seeds storage</b>	Post harvest management		For seed purpose store the seeds in <b>RC-Seed Bin</b> 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.

<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Cauliflower (Early)</b>	Land preparation to nursery sowing		- Prepare raised nursery bed with temporary rain shed and drain out excess water near bed area. Apply 1-2 kg FYM/ m <sup>2</sup> of nursery bed. Drench the soil with Captan 50 W.P. Till germination the cover bed with paddy straw.
<b>Turmeric</b>	Vegetative		- For grown up plants spray Dithan M45 @ 2 to 2.5 ml/lit of water as prophylactic measures after the rain.
<b>Colocassia</b>	Vegetative		- Weeding and earthing up may be done after the wet spell. - Avoid water logging. - Prophylactic measures against leaf blight should be taken up. Spray Redomil@ 1.5g/litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after this wet spell.
<b>Chilli/ capsicum</b>	Flowering and fruiting to		- In chillies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63%



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	harvesting		WP) @ 2 g/ litre of water to control the fungal attack after rains.
<b>Cowpea</b>	Sowing		<ul style="list-style-type: none"> <li>- Cowpea may be sown as an intercrop in the fruit orchard such as lemon, orange, passion fruit, etc.</li> <li>- Land preparation; sowing spacing: 45 – 60 cm from seed to seed and row to row; raised beds are preferred for sowing.</li> <li>- Recommended varieties: Yard long bean &amp; Pusa Barsati.</li> </ul>

**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
<b>Poultry (Chicken/ Duck)</b>	All age groups	• Ranikhet disease	• Strongly advised to vaccinate against Ranikhet disease. Vaccinate the flock using Lasota strain vaccine through ocular route if the age of chick is less than 21 days and through nasal route if it is older than 21 days.
		• Endoparasites	• De-worm using Levamisole Hydrochloride. Potash granules may be added in the drinking water of poultry.
		• Management	• Do not allow to consume muddy water to protect from E.coli infection. Use water sanitizer.
		• Coccidiosis	• Give Amprolium @ 2 gms/ litre of drinking water for 5-7 days.
<b>Sheep/ Goat</b>	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.
		• Management	<ul style="list-style-type: none"> <li>• Fly repellent must be used in the premises of the sheds.</li> <li>• Protect from thunder showers. Protect from after winds (loo).</li> </ul>
<b>Pig</b>	All age groups except the young ones	• De-worming	• De-worm with Albendazole @7.5 mg/kg b.wt.
		• Skin disease	• Sprayer of <i>Anti-Psoroptic</i> may be used.
		• Management	<ul style="list-style-type: none"> <li>• Breeding must be advocated continuously.</li> <li>• Protect from thunder showers especially during night.</li> </ul>
<b>Cattle</b>	All age groups excepts the young ones	• Vaccination	<ul style="list-style-type: none"> <li>• Vaccinate against B.Q., F.M.D. &amp; H.S. if not yet vaccinated.</li> <li>• Cases of H.S. may be encountered during this period. Immediate treatment using appropriate drugs with the help of Consultant must be advocated to safe the animals.</li> <li>• Protect animals from PICA (depraved appetite) by providing essential body salts (mineral forte powder) 25g/day.</li> </ul>
		• 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.

**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
<b>Carp culture</b>	Breeding	pond	Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ <b>0.5 - 0.7 ml/kg</b> of fish.
	Hatcheries	water	Hatching can be done in traditional happas having outer & inner happas or circular hatcheries. A mild current with fine shower is needed for circular hatcheries. Feed should not be given for 3 days.
	Nurseries	ponds	- Stock 20-30 lakhs spawns in one hectare water. Water depth should be more than 1.0 m. Feeding should be given@5-10% body weight/day.
	Carp diseases	Argulus (fish lice) infection	
EUS (Epizostic Ulcerative Syndrome)			- Spray CIFAX @ 1 litre/ 100 litre of water for one hectare fish pond with EUS infected fishes.

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



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<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (15<sup>th</sup> to 18<sup>th</sup> June, 2018)</b>                  Observed <b>21.8 mm</b> rainfall with <b>mainly cloudy to overcast sky</b> but <b>mainly clear to partly cloudy sky</b> on 17<sup>th</sup> and 18<sup>th</sup> morning. Maximum temperature recorded ranged from <b>26.7</b> to <b>30.4 °C</b> and minimum of <b>20.8</b> to <b>21.6 °C</b> with mean relative humidity <b>89.5 %</b> max and <b>67.3 %</b> min was recorded in the past three days with average wind speed was <b>3.8 – 6.1 km/ hr.</b></p>	<p><b>Weather forecast for next five days of Chandel (20<sup>th</sup> to 24<sup>th</sup> June, 2018)</b>                  Likely to have light rains during next five days and partly cloudy to mainly cloudy sky with maximum temp. <b>29-30 °C</b> &amp; minimum temp. <b>19-21 °C</b>. Relative humidity may reach upto <b>97 % (max RH)</b> &amp; <b>59 % (min RH)</b>. The average wind speed may be <b>3-4 km/hr.</b></p>
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<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Grain filling stage (Pre-kharif rice)	Bacterial leaf blight	- Construct bands around the crop field to maintain water level at 5-8 cm. - Drain out excess water from the field accumulated due to heavy rains. - Spray Streptocycline @ 1gm/15 litres of water.
		Sheath blight/ sheath rot	- Apply Propiconazole @ 15ml/ 15 litres water after rains.
	Nursery and land preparation of main field (Kharif rice)		- Recommended varieties: RC Maniphou-7, RC Maniphou- 10 and RC Maniphou-13. Raise rice nursery. - Encircle the nursery plot with happa after sowing at least for 10 days so that the seeds are not carried away if water level increases due to rains. - Land preparation of main field may be done for transplanting rice seedling and submerge it for 15- 20 days. Apply 65 kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling before transplanting.
<b>Kharif Maize</b>	Vegetative		- Sowing may be done. - For the crops in vegetative phase, weeding may be done after rain by hand or apply Simazine @ 0.75 kg a.i./ ha.
<b>Soybean</b>	Sowing		- Sow seed @ 40-45 kg/ha or 10-11.3 kg of seed/ sangam and the recommended variety is J.S.335. Sowing may be done at spacing of 45cm x 30cm. Treat seeds with Nativo@2g/kg seeds or with Bavistin@2.5g/kg seed or with Thiram. -Weeding may be done if the weed population is high.
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<b>Seeds storage</b>	Post harvest management		For seed purpose store the seeds in <b>RC-Seed Bin</b> after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.

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<b>Turmeric</b>	Vegetative		- For grown up plants spray Dithan M45 @ 2 to 2.5 ml/lit of water as prophylactic measures after the rain.
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<b>Poultry (Chicken/ Duck)</b>	All age groups	• Ranikhet disease	• Strongly advised to vaccinate against Ranikhet disease. Vaccinate the flock using Lasota strain vaccine through ocular route if the age of chick is less than 21 days and through nasal route if it is older than 21 days.
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<b>Carp culture</b>	Breeding	pond	Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ <b>0.5 - 0.7 ml/kg</b> of fish.
	Hatcheries	water	Hatching can be done in traditional happas having outer & inner happas or circular hatcheries. A mild current with fine shower is needed for circular hatcheries. Feed should not be given for 3 days.
	Nurseries	ponds	- Stock 20-30 lakhs spawns in one hectare water. Water depth should be more than 1.0 m. Feeding should be given@5-10% body weight/day.
	Carp diseases	Argulus (fish lice) infection	
EUS (Epizostic Ulcerative Syndrome)			- Spray CIFAX @ 1 litre/ 100 litre of water for one hectare fish pond with EUS infected fishes.

(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****19<sup>th</sup> June, 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 20<sup>th</sup> to 24<sup>th</sup> June, 2018 as below:

<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (15<sup>th</sup> to 18<sup>th</sup> June, 2018)</b>  Observed <b>21.8 mm</b> rainfall with <b>mainly cloudy to overcast sky</b> but <b>mainly clear to partly cloudy sky</b> on 17<sup>th</sup> and 18<sup>th</sup> morning. Maximum temperature recorded ranged from <b>26.7</b> to <b>30.4 °C</b> and minimum of <b>20.8</b> to <b>21.6 °C</b> with mean relative humidity <b>89.5 %</b> max and <b>67.3 %</b> min was recorded in the past three days with average wind speed was <b>3.8 – 6.1 km/ hr.</b></p>	<p><b>Weather forecast for next five days of Imphal East (20<sup>th</sup> to 24<sup>th</sup> June, 2018)</b>  Likely to have light rains during next five days and partly cloudy to mainly cloudy sky with maximum temp. <b>30-31 °C</b> &amp; minimum temp. <b>23-24 °C</b>. Relative humidity may reach upto <b>99 % (max RH)</b> &amp; <b>60 % (min RH)</b>. The average wind speed may be <b>2-3 km/hr.</b></p>
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<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Grain filling stage (Pre-kharif rice)	Bacterial leaf blight	- Construct bands around the crop field to maintain water level at 5-8 cm. - Drain out excess water from the field accumulated due to heavy rains. - Spray Streptocycline @ 1gm/15 litres of water.
		Sheath blight/ sheath rot	- Apply Propiconazole @ 15ml/ 15 litres water after rains.
	Nursery and land preparation of main field (Kharif rice)		- Recommended varieties: RC Maniphou-7, RC Maniphou- 10 and RC Maniphou-13. Raise rice nursery. - Encircle the nursery plot with happa after sowing at least for 10 days so that the seeds are not carried away if water level increases due to rains. - Land preparation of main field may be done for transplanting rice seedling and submerge it for 15- 20 days. Apply 65 kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling before transplanting.
<b>Kharif Maize</b>	Vegetative		- Sowing may be done. - For the crops in vegetative phase, weeding may be done after rain by hand or apply Simazine @ 0.75 kg a.i./ ha.
<b>Soybean</b>	Sowing		- Sow seed @ 40-45 kg/ha or 10-11.3 kg of seed/ sangam and the recommended variety is J.S.335. Sowing may be done at spacing of 45cm x 30cm. Treat seeds with Nativo@2g/kg seeds or with Bavistin@2.5g/kg seed or with Thiram. -Weeding may be done if the weed population is high.
<b>Groundnut</b>	Sowing		- Seed rate is 100 – 110 kg/ha and the recommended varieties are ICGS-75 & JL-24. Sow seeds at spacing 30cm x 15cm after rains. Treat seeds with Imidacloprid @ 2ml/ litre water or Bavistin @ 2.5g/ kg seed or with Thiram. - Weeding may be done if the weed population is high.
<b>Blackgram/ Rice Bean</b>	Sowing		- Sowing may be done by broadcasting or dibbling. Plot must be kept weed free to avoid insect/ pest. Weeding may be done if the weed population is high.
<b>Seeds storage</b>	Post harvest management		For seed purpose store the seeds in <b>RC-Seed Bin</b> 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.

<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Cauliflower (Early)</b>	Land preparation to nursery sowing		- Prepare raised nursery bed with temporary rain shed and drain out excess water near bed area. Apply 1-2 kg FYM/ m <sup>2</sup> of nursery bed. Drench the soil with Captan 50 W.P. Till germination the cover bed with paddy straw.
<b>Turmeric</b>	Vegetative		- For grown up plants spray Dithan M45 @ 2 to 2.5 ml/lit of water as prophylactic measures after the rain.
<b>Colocassia</b>	Vegetative		- Weeding and earthing up may be done after the wet spell. - Avoid water logging. - Prophylactic measures against leaf blight should be taken up. Spray Redomil@ 1.5g/litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after this wet spell.
<b>Chilli/ capsicum</b>	Flowering and fruiting to		- In chillies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63%



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



	harvesting		WP) @ 2 g/ litre of water to control the fungal attack after rains.
<b>Cowpea</b>	Sowing		<ul style="list-style-type: none"> <li>- Cowpea may be sown as an intercrop in the fruit orchard such as lemon, orange, passion fruit, etc.</li> <li>- Land preparation; sowing spacing: 45 – 60 cm from seed to seed and row to row; raised beds are preferred for sowing.</li> <li>- Recommended varieties: Yard long bean &amp; Pusa Barsati.</li> </ul>

**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
<b>Poultry (Chicken/ Duck)</b>	All age groups	• Ranikhet disease	• Strongly advised to vaccinate against Ranikhet disease. Vaccinate the flock using Lasota strain vaccine through ocular route if the age of chick is less than 21 days and through nasal route if it is older than 21 days.
		• Endoparasites	• De-worm using Levamisole Hydrochloride. Potash granules may be added in the drinking water of poultry.
		• Management	• Do not allow to consume muddy water to protect from E.coli infection. Use water sanitizer.
		• Coccidiosis	• Give Amprolium @ 2 gms/ litre of drinking water for 5-7 days.
<b>Sheep/ Goat</b>	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.
		• Management	• Fly repellent must be used in the premises of the sheds. • Protect from thunder showers. Protect from after winds (loo).
<b>Pig</b>	All age groups except the young ones	• De-worming	• De-worm with Albendazole @7.5 mg/kg b.wt.
		• Skin disease	• Sprayer of <i>Anti-Psoroptic</i> may be used.
		• Management	• Breeding must be advocated continuously. • Protect from thunder showers especially during night.
<b>Cattle</b>	All age groups excepts the young ones	• Vaccination	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated. • Cases of H.S. may be encountered during this period. Immediate treatment using appropriate drugs with the help of Consultant must be advocated to safe the animals. • 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.

**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
<b>Carp culture</b>	Breeding	pond	Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ <b>0.5 - 0.7 ml/kg</b> of fish.
	Hatcheries	water	Hatching can be done in traditional happas having outer & inner happas or circular hatcheries. A mild current with fine shower is needed for circular hatcheries. Feed should not be given for 3 days.
	Nurseries	ponds	- Stock 20-30 lakhs spawns in one hectare water. Water depth should be more than 1.0 m. Feeding should be given@5-10% body weight/day.
	Carp diseases	Argulus (fish lice) infection	
EUS (Epizostic Ulcerative Syndrome)			- Spray CIFAX @ 1 litre/ 100 litre of water for one hectare fish pond with EUS infected fishes.

(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**

**19<sup>th</sup> June, 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 20<sup>th</sup> to 24<sup>th</sup> June, 2018 as below:

<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (15<sup>th</sup> to 18<sup>th</sup> June, 2018)</b>                  Observed <b>21.8 mm</b> rainfall with <b>mainly cloudy to overcast sky</b> but <b>mainly clear to partly cloudy sky</b> on 17<sup>th</sup> and 18<sup>th</sup> morning. Maximum temperature recorded ranged from <b>26.7</b> to <b>30.4 °C</b> and minimum of <b>20.8</b> to <b>21.6 °C</b> with mean relative humidity <b>89.5 %</b> max and <b>67.3 %</b> min was recorded in the past three days with average wind speed was <b>3.8 – 6.1 km/ hr.</b></p>	<p><b>Weather forecast for next five days of Imphal West (20<sup>th</sup> to 24<sup>th</sup> June, 2018)</b>                  Likely to have light rains during next five days and partly cloudy to mainly cloudy sky with maximum temp. <b>30-32 °C</b> &amp; minimum temp. <b>23-24 °C</b>. Relative humidity may reach upto <b>100 %</b> (max RH) &amp; <b>78 %</b> (min RH). The average wind speed may be <b>2-4 km/hr.</b></p>
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<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Grain filling stage (Pre-kharif rice)	Bacterial leaf blight	- Construct bands around the crop field to maintain water level at 5-8 cm. - Drain out excess water from the field accumulated due to heavy rains. - Spray Streptocycline @ 1gm/15 litres of water.
		Sheath blight/ sheath rot	- Apply Propiconazole @ 15ml/ 15 litres water after rains.
	Nursery and land preparation of main field (Kharif rice)		- Recommended varieties: RC Maniphou-7, RC Maniphou- 10 and RC Maniphou-13. Raise rice nursery. - Encircle the nursery plot with happa after sowing at least for 10 days so that the seeds are not carried away if water level increases due to rains. - Land preparation of main field may be done for transplanting rice seedling and submerge it for 15- 20 days. Apply 65 kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling before transplanting.
<b>Kharif Maize</b>	Vegetative		- Sowing may be done. - For the crops in vegetative phase, weeding may be done after rain by hand or apply Simazine @ 0.75 kg a.i./ ha.
<b>Soybean</b>	Sowing		- Sow seed @ 40-45 kg/ha or 10-11.3 kg of seed/ sangam and the recommended variety is J.S.335. Sowing may be done at spacing of 45cm x 30cm. Treat seeds with Nativo@2g/kg seeds or with Bavistin@2.5g/kg seed or with Thiram. -Weeding may be done if the weed population is high.
<b>Groundnut</b>	Sowing		- Seed rate is 100 – 110 kg/ha and the recommended varieties are ICGS-75 & JL-24. Sow seeds at spacing 30cm x 15cm after rains. Treat seeds with Imidacloprid @ 2ml/ litre water or Bavistin @ 2.5g/ kg seed or with Thiram. - Weeding may be done if the weed population is high.
<b>Blackgram/ Rice Bean</b>	Sowing		- Sowing may be done by broadcasting or dibbling. Plot must be kept weed free to avoid insect/ pest. Weeding may be done if the weed population is high.
<b>Seeds storage</b>	Post harvest management		For seed purpose store the seeds in <b>RC-Seed Bin</b> 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.

<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Cauliflower (Early)</b>	Land preparation to nursery sowing		- Prepare raised nursery bed with temporary rain shed and drain out excess water near bed area. Apply 1-2 kg FYM/ m <sup>2</sup> of nursery bed. Drench the soil with Captan 50 W.P. Till germination the cover bed with paddy straw.
<b>Turmeric</b>	Vegetative		- For grown up plants spray Dithan M45 @ 2 to 2.5 ml/lit of water as prophylactic measures after the rain.
<b>Colocassia</b>	Vegetative		- Weeding and earthing up may be done after the wet spell. - Avoid water logging. - Prophylactic measures against leaf blight should be taken up. Spray Redomil@ 1.5g/litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after this wet spell.
<b>Chilli/ capsicum</b>	Flowering and fruiting to		- In chillies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63%



**ICAR Research Complex for N.E.H. Region**  
**Manipur Centre, Lamphelpat, Imphal - 795 004**  
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	harvesting		WP) @ 2 g/ litre of water to control the fungal attack after rains.
<b>Cowpea</b>	Sowing		<ul style="list-style-type: none"> <li>- Cowpea may be sown as an intercrop in the fruit orchard such as lemon, orange, passion fruit, etc.</li> <li>- Land preparation; sowing spacing: 45 – 60 cm from seed to seed and row to row; raised beds are preferred for sowing.</li> <li>- Recommended varieties: Yard long bean &amp; Pusa Barsati.</li> </ul>

**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
<b>Poultry (Chicken/ Duck)</b>	All age groups	• Ranikhet disease	• Strongly advised to vaccinate against Ranikhet disease. Vaccinate the flock using Lasota strain vaccine through ocular route if the age of chick is less than 21 days and through nasal route if it is older than 21 days.
		• Endoparasites	• De-worm using Levamisole Hydrochloride. Potash granules may be added in the drinking water of poultry.
		• Management	• Do not allow to consume muddy water to protect from E.coli infection. Use water sanitizer.
		• Coccidiosis	• Give Amprolium @ 2 gms/ litre of drinking water for 5-7 days.
<b>Sheep/ Goat</b>	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.
		• Management	• Fly repellent must be used in the premises of the sheds. • Protect from thunder showers. Protect from after winds (loo).
<b>Pig</b>	All age groups except the young ones	• De-worming	• De-worm with Albendazole @7.5 mg/kg b.wt.
		• Skin disease	• Sprayer of <i>Anti-Psoroptic</i> may be used.
		• Management	• Breeding must be advocated continuously. • Protect from thunder showers especially during night.
<b>Cattle</b>	All age groups excepts the young ones	• Vaccination	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated. • Cases of H.S. may be encountered during this period. Immediate treatment using appropriate drugs with the help of Consultant must be advocated to safe the animals. • 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.

**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
<b>Carp culture</b>	Breeding	pond	Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ <b>0.5 - 0.7 ml/kg</b> of fish.
	Hatcheries	water	Hatching can be done in traditional happas having outer & inner happas or circular hatcheries. A mild current with fine shower is needed for circular hatcheries. Feed should not be given for 3 days.
	Nurseries	ponds	- Stock 20-30 lakhs spawns in one hectare water. Water depth should be more than 1.0 m. Feeding should be given@5-10% body weight/day.
	Carp diseases	Argulus (fish lice) infection	
EUS (Epizostic Ulcerative Syndrome)			- Spray CIFAX @ 1 litre/ 100 litre of water for one hectare fish pond with EUS infected fishes.

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



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**“Gramin Krishi Mausam Seva”**



**MANIPUR BULLETIN**

**19<sup>th</sup> June, 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 20<sup>th</sup> to 24<sup>th</sup> June, 2018 as below:

<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (15<sup>th</sup> to 18<sup>th</sup> June, 2018)</b>                  Observed <b>21.8 mm</b> rainfall with <b>mainly cloudy to overcast sky</b> but <b>mainly clear to partly cloudy sky</b> on 17<sup>th</sup> and 18<sup>th</sup> morning. Maximum temperature recorded ranged from <b>26.7</b> to <b>30.4 °C</b> and minimum of <b>20.8</b> to <b>21.6 °C</b> with mean relative humidity <b>89.5 %</b> max and <b>67.3 %</b> min was recorded in the past three days with average wind speed was <b>3.8 – 6.1 km/ hr.</b></p>	<p><b>Weather forecast for next five days of Senapati (20<sup>th</sup> to 24<sup>th</sup> June, 2018)</b>                   Likely to have light rains during next five days and partly cloudy to mainly cloudy sky with maximum temp. <b>28-29 °C</b> &amp; minimum temp. <b>19-20 °C</b>. Relative humidity may reach upto <b>100 %</b> (max RH) &amp; <b>67 %</b> (min RH). The average wind speed may be <b>2 km/hr.</b></p>
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<i>Field Crops</i>			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Rice</b>	Grain filling stage (Pre-kharif rice)	Bacterial leaf blight	- Construct bands around the crop field to maintain water level at 5-8 cm. - Drain out excess water from the field accumulated due to heavy rains. - Spray Streptocycline @ 1gm/15 litres of water.
		Sheath blight/ sheath rot	- Apply Propiconazole @ 15ml/ 15 litres water after rains.
	Nursery and land preparation of main field (Kharif rice)		- Recommended varieties: RC Maniphou-7, RC Maniphou- 10 and RC Maniphou-13. Raise rice nursery. - Encircle the nursery plot with happa after sowing at least for 10 days so that the seeds are not carried away if water level increases due to rains. - Land preparation of main field may be done for transplanting rice seedling and submerge it for 15- 20 days. Apply 65 kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling before transplanting.
<b>Kharif Maize</b>	Vegetative		- Sowing may be done. - For the crops in vegetative phase, weeding may be done after rain by hand or apply Simazine @ 0.75 kg a.i./ ha.
<b>Soybean</b>	Sowing		- Sow seed @ 40-45 kg/ha or 10-11.3 kg of seed/ sangam and the recommended variety is J.S.335. Sowing may be done at spacing of 45cm x 30cm. Treat seeds with Nativo@2g/kg seeds or with Bavistin@2.5g/kg seed or with Thiram. -Weeding may be done if the weed population is high.
<b>Groundnut</b>	Sowing		- Seed rate is 100 – 110 kg/ha and the recommended varieties are ICGS-75 & JL-24. Sow seeds at spacing 30cm x 15cm after rains. Treat seeds with Imidacloprid @ 2ml/ litre water or Bavistin @ 2.5g/ kg seed or with Thiram. - Weeding may be done if the weed population is high.
<b>Blackgram/ Rice Bean</b>	Sowing		- Sowing may be done by broadcasting or dibbling. Plot must be kept weed free to avoid insect/ pest. Weeding may be done if the weed population is high.
<b>Seeds storage</b>	Post harvest management		For seed purpose store the seeds in <b>RC-Seed Bin</b> 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.

<i>Horticulture Crops</i>			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Turmeric</b>	Vegetative		- For grown up plants spray Dithan M45 @ 2 to 2.5 ml/lit of water as prophylactic measures after the rain.
<b>Colocassia</b>	Vegetative		- Weeding and earthing up may be done after the wet spell. - Avoid water logging. - Prophylactic measures against leaf blight should be taken up. Spray Redomil@ 1.5g/litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after this wet spell.
<b>Cowpea</b>	Sowing		- Cowpea may be sown as an intercrop in the fruit orchard such as lemon, orange, passion fruit, etc. - Land preparation; sowing spacing: 45 – 60 cm from seed to seed and row to row; raised beds are preferred for sowing.



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**“Gramin Krishi Mausam Seva”**



- Recommended varieties: Yard long bean & Pusa Barsati.

**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
<b>Poultry (Chicken/ Duck)</b>	All age groups	• Ranikhet disease	• Strongly advised to vaccinate against Ranikhet disease. Vaccinate the flock using Lasota strain vaccine through ocular route if the age of chick is less than 21 days and through nasal route if it is older than 21 days.
		• Endoparasites	• De-worm using Levamisole Hydrochloride. Potash granules may be added in the drinking water of poultry.
		• Management	• Do not allow to consume muddy water to protect from E.coli infection. Use water sanitizer.
		• Coccidiosis	• Give Amprolium @ 2 gms/ litre of drinking water for 5-7 days.
<b>Sheep/ Goat</b>	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.
		• Management	• Fly repellent must be used in the premises of the sheds. • Protect from thunder showers. Protect from after winds (loo).
<b>Pig</b>	All age groups except the young ones	• De-worming	• De-worm with Albendazole @7.5 mg/kg b.wt.
		• Skin disease	• Sprayer of <i>Anti-Psoroptic</i> may be used.
		• Management	• Breeding must be advocated continuously. • Protect from thunder showers especially during night.
<b>Cattle</b>	All age groups excepts the young ones	• Vaccination	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated. • Cases of H.S. may be encountered during this period. Immediate treatment using appropriate drugs with the help of Consultant must be advocated to safe the animals. • 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.

**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
<b>Carp culture</b>	Breeding	pond	Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ <b>0.5 - 0.7 ml/kg</b> of fish.
	Hatcheries	water	Hatching can be done in traditional happas having outer & inner happas or circular hatcheries. A mild current with fine shower is needed for circular hatcheries. Feed should not be given for 3 days.
	Nurseries	ponds	- Stock 20-30 lakhs spawns in one hectare water. Water depth should be more than 1.0 m. Feeding should be given @5-10% body weight/day.
	Carp diseases	Argulus (fish lice) infection	
EUS (Epizostic Ulcerative Syndrome)			- Spray CIFAX @ 1 litre/ 100 litre of water for one hectare fish pond with EUS infected fishes.

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



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**“Gramin Krishi Mausam Seva”**



**MANIPUR BULLETIN**

**19<sup>th</sup> June, 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 20<sup>th</sup> to 24<sup>th</sup> June, 2018 as below:

<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (15<sup>th</sup> to 18<sup>th</sup> June, 2018)</b>                  Observed <b>21.8 mm</b> rainfall with <b>mainly cloudy to overcast sky</b> but <b>mainly clear to partly cloudy sky</b> on 17<sup>th</sup> and 18<sup>th</sup> morning. Maximum temperature recorded ranged from <b>26.7</b> to <b>30.4 °C</b> and minimum of <b>20.8</b> to <b>21.6 °C</b> with mean relative humidity <b>89.5 %</b> max and <b>67.3 %</b> min was recorded in the past three days with average wind speed was <b>3.8 – 6.1 km/ hr.</b></p>	<p><b>Weather forecast for next five days of Tamenglong (20<sup>th</sup> to 24<sup>th</sup> June, 2018)</b>                   Likely to have light rains during next five days and partly cloudy to mainly cloudy sky with maximum temp. <b>28-29 °C</b> &amp; minimum temp. <b>19-21 °C</b>. Relative humidity may reach upto <b>100 %</b> (max RH) &amp; <b>73 %</b> (min RH). The average wind speed may be <b>2-3 km/hr.</b></p>
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<i>Field Crops</i>			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Rice</b>	Grain filling stage (Pre-kharif rice)	Bacterial leaf blight	- Construct bands around the crop field to maintain water level at 5-8 cm. - Drain out excess water from the field accumulated due to heavy rains. - Spray Streptocycline @ 1gm/15 litres of water.
		Sheath blight/ sheath rot	- Apply Propiconazole @ 15ml/ 15 litres water after rains.
	Nursery and land preparation of main field (Kharif rice)		- Recommended varieties: RC Maniphou-7, RC Maniphou- 10 and RC Maniphou-13. Raise rice nursery. - Encircle the nursery plot with happa after sowing at least for 10 days so that the seeds are not carried away if water level increases due to rains. - Land preparation of main field may be done for transplanting rice seedling and submerge it for 15- 20 days. Apply 65 kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling before transplanting.
<b>Kharif Maize</b>	Vegetative		- Sowing may be done. - For the crops in vegetative phase, weeding may be done after rain by hand or apply Simazine @ 0.75 kg a.i./ ha.
<b>Soybean</b>	Sowing		- Sow seed @ 40-45 kg/ha or 10-11.3 kg of seed/ sangam and the recommended variety is J.S.335. Sowing may be done at spacing of 45cm x 30cm. Treat seeds with Nativo@2g/kg seeds or with Bavistin@2.5g/kg seed or with Thiram. -Weeding may be done if the weed population is high.
<b>Groundnut</b>	Sowing		- Seed rate is 100 – 110 kg/ha and the recommended varieties are ICGS-75 & JL-24. Sow seeds at spacing 30cm x 15cm after rains. Treat seeds with Imidacloprid @ 2ml/ litre water or Bavistin @ 2.5g/ kg seed or with Thiram. - Weeding may be done if the weed population is high.
<b>Blackgram/ Rice Bean</b>	Sowing		- Sowing may be done by broadcasting or dibbling. Plot must be kept weed free to avoid insect/ pest. Weeding may be done if the weed population is high.
<b>Seeds storage</b>	Post harvest management		For seed purpose store the seeds in <b>RC-Seed Bin</b> 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.

<i>Horticulture Crops</i>			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Cauliflower (Early)</b>	Land preparation to nursery sowing		- Prepare raised nursery bed with temporary rain shed and drain out excess water near bed area. Apply 1-2 kg FYM/ m <sup>2</sup> of nursery bed. Drench the soil with Captan 50 W.P. Till germination the cover bed with paddy straw.
<b>Turmeric</b>	Vegetative		- For grown up plants spray Dithan M45 @ 2 to 2.5 ml/lit of water as prophylactic measures after the rain.
<b>Colocassia</b>	Vegetative		- Weeding and earthing up may be done after the wet spell. - Avoid water logging. - Prophylactic measures against leaf blight should be taken up. Spray Redomil@ 1.5g/litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after this wet spell.
<b>Chilli/ capsicum</b>	Flowering and fruiting to		- In chillies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63%



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



	harvesting		WP) @ 2 g/ litre of water to control the fungal attack after rains.
<b>Cowpea</b>	Sowing		<ul style="list-style-type: none"> <li>- Cowpea may be sown as an intercrop in the fruit orchard such as lemon, orange, passion fruit, etc.</li> <li>- Land preparation; sowing spacing: 45 – 60 cm from seed to seed and row to row; raised beds are preferred for sowing.</li> <li>- Recommended varieties: Yard long bean &amp; Pusa Barsati.</li> </ul>

**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
<b>Poultry (Chicken/ Duck)</b>	All age groups	• Ranikhet disease	• Strongly advised to vaccinate against Ranikhet disease. Vaccinate the flock using Lasota strain vaccine through ocular route if the age of chick is less than 21 days and through nasal route if it is older than 21 days.
		• Endoparasites	• De-worm using Levamisole Hydrochloride. Potash granules may be added in the drinking water of poultry.
		• Management	• Do not allow to consume muddy water to protect from E.coli infection. Use water sanitizer.
		• Coccidiosis	• Give Amprolium @ 2 gms/ litre of drinking water for 5-7 days.
<b>Sheep/ Goat</b>	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.
		• Management	<ul style="list-style-type: none"> <li>• Fly repellent must be used in the premises of the sheds.</li> <li>• Protect from thunder showers. Protect from after winds (loo).</li> </ul>
<b>Pig</b>	All age groups except the young ones	• De-worming	• De-worm with Albendazole @7.5 mg/kg b.wt.
		• Skin disease	• Sprayer of <i>Anti-Psoroptic</i> may be used.
		• Management	<ul style="list-style-type: none"> <li>• Breeding must be advocated continuously.</li> <li>• Protect from thunder showers especially during night.</li> </ul>
<b>Cattle</b>	All age groups excepts the young ones	• Vaccination	<ul style="list-style-type: none"> <li>• Vaccinate against B.Q., F.M.D. &amp; H.S. if not yet vaccinated.</li> <li>• Cases of H.S. may be encountered during this period. Immediate treatment using appropriate drugs with the help of Consultant must be advocated to safe the animals.</li> <li>• Protect animals from PICA (depraved appetite) by providing essential body salts (mineral forte powder) 25g/day.</li> </ul>
		• 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.

**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
<b>Carp culture</b>	Breeding	pond	Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ <b>0.5 - 0.7 ml/kg</b> of fish.
	Hatcheries	water	Hatching can be done in traditional happas having outer & inner happas or circular hatcheries. A mild current with fine shower is needed for circular hatcheries. Feed should not be given for 3 days.
	Nurseries	ponds	- Stock 20-30 lakhs spawns in one hectare water. Water depth should be more than 1.0 m. Feeding should be given@5-10% body weight/day.
	Carp diseases	Argulus (fish lice) infection	
EUS (Epizostic Ulcerative Syndrome)			- Spray CIFAX @ 1 litre/ 100 litre of water for one hectare fish pond with EUS infected fishes.

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



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**MANIPUR BULLETIN**

**19<sup>th</sup> June, 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 20<sup>th</sup> to 24<sup>th</sup> June, 2018 as below:

<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (15<sup>th</sup> to 18<sup>th</sup> June, 2018)</b>          Observed <b>21.8 mm</b> rainfall with <b>mainly cloudy to overcast sky</b> but <b>mainly clear to partly cloudy sky</b> on 17<sup>th</sup> and 18<sup>th</sup> morning. Maximum temperature recorded ranged from <b>26.7</b> to <b>30.4 °C</b> and minimum of <b>20.8</b> to <b>21.6 °C</b> with mean relative humidity <b>89.5 %</b> max and <b>67.3 %</b> min was recorded in the past three days with average wind speed was <b>3.8 – 6.1 km/ hr.</b></p>	<p><b>Weather forecast for next five days of Thoubal (20<sup>th</sup> to 24<sup>th</sup> June, 2018)</b>          Likely to have light rains during next five days and partly cloudy to mainly cloudy sky with maximum temp. <b>30-32 °C</b> &amp; minimum temp. <b>23-24 °C</b>. Relative humidity may reach upto <b>100 %</b> (max RH) &amp; <b>79 %</b> (min RH). The average wind speed may be <b>2-4 km/hr.</b></p>
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<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Grain filling stage (Pre-kharif rice)	Bacterial leaf blight	- Construct bands around the crop field to maintain water level at 5-8 cm. - Drain out excess water from the field accumulated due to heavy rains. - Spray Streptocycline @ 1gm/15 litres of water.
		Sheath blight/ sheath rot	- Apply Propiconazole @ 15ml/ 15 litres water after rains.
	Nursery and land preparation of main field (Kharif rice)		- Recommended varieties: RC Maniphou-7, RC Maniphou- 10 and RC Maniphou-13. Raise rice nursery. - Encircle the nursery plot with happa after sowing at least for 10 days so that the seeds are not carried away if water level increases due to rains. - Land preparation of main field may be done for transplanting rice seedling and submerge it for 15- 20 days. Apply 65 kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling before transplanting.
<b>Kharif Maize</b>	Vegetative		- Sowing may be done. - For the crops in vegetative phase, weeding may be done after rain by hand or apply Simazine @ 0.75 kg a.i./ ha.
<b>Soybean</b>	Sowing		- Sow seed @ 40-45 kg/ha or 10-11.3 kg of seed/ sangam and the recommended variety is J.S.335. Sowing may be done at spacing of 45cm x 30cm. Treat seeds with Nativo@2g/kg seeds or with Bavistin@2.5g/kg seed or with Thiram. -Weeding may be done if the weed population is high.
<b>Groundnut</b>	Sowing		- Seed rate is 100 – 110 kg/ha and the recommended varieties are ICGS-75 & JL-24. Sow seeds at spacing 30cm x 15cm after rains. Treat seeds with Imidacloprid @ 2ml/ litre water or Bavistin @ 2.5g/ kg seed or with Thiram. - Weeding may be done if the weed population is high.
<b>Blackgram/ Rice Bean</b>	Sowing		- Sowing may be done by broadcasting or dibbling. Plot must be kept weed free to avoid insect/ pest. Weeding may be done if the weed population is high.
<b>Seeds storage</b>	Post harvest management		For seed purpose store the seeds in <b>RC-Seed Bin</b> 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.

<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Cauliflower (Early)</b>	Land preparation to nursery sowing		- Prepare raised nursery bed with temporary rain shed and drain out excess water near bed area. Apply 1-2 kg FYM/ m <sup>2</sup> of nursery bed. Drench the soil with Captan 50 W.P. Till germination the cover bed with paddy straw.
<b>Turmeric</b>	Vegetative		- For grown up plants spray Dithan M45 @ 2 to 2.5 ml/lit of water as prophylactic measures after the rain.
<b>Colocassia</b>	Vegetative		- Weeding and earthing up may be done after the wet spell. - Avoid water logging. - Prophylactic measures against leaf blight should be taken up. Spray Redomil@ 1.5g/litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after this wet spell.
<b>Chilli/ capsicum</b>	Flowering and fruiting to		- In chillies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63%



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	harvesting		WP) @ 2 g/ litre of water to control the fungal attack after rains.
<b>Cowpea</b>	Sowing		<ul style="list-style-type: none"> <li>- Cowpea may be sown as an intercrop in the fruit orchard such as lemon, orange, passion fruit, etc.</li> <li>- Land preparation; sowing spacing: 45 – 60 cm from seed to seed and row to row; raised beds are preferred for sowing.</li> <li>- Recommended varieties: Yard long bean &amp; Pusa Barsati.</li> </ul>

**Animal Sciences**

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Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
<b>Poultry (Chicken/ Duck)</b>	All age groups	• Ranikhet disease	• Strongly advised to vaccinate against Ranikhet disease. Vaccinate the flock using Lasota strain vaccine through ocular route if the age of chick is less than 21 days and through nasal route if it is older than 21 days.
		• Endoparasites	• De-worm using Levamisole Hydrochloride. Potash granules may be added in the drinking water of poultry.
		• Management	• Do not allow to consume muddy water to protect from E.coli infection. Use water sanitizer.
		• Coccidiosis	• Give Amprolium @ 2 gms/ litre of drinking water for 5-7 days.
<b>Sheep/ Goat</b>	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.
		• Management	<ul style="list-style-type: none"> <li>• Fly repellent must be used in the premises of the sheds.</li> <li>• Protect from thunder showers. Protect from after winds (loo).</li> </ul>
<b>Pig</b>	All age groups except the young ones	• De-worming	• De-worm with Albendazole @7.5 mg/kg b.wt.
		• Skin disease	• Sprayer of <i>Anti-Psoroptic</i> may be used.
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<b>Cattle</b>	All age groups excepts the young ones	• Vaccination	<ul style="list-style-type: none"> <li>• Vaccinate against B.Q., F.M.D. &amp; H.S. if not yet vaccinated.</li> <li>• Cases of H.S. may be encountered during this period. Immediate treatment using appropriate drugs with the help of Consultant must be advocated to safe the animals.</li> <li>• Protect animals from PICA (depraved appetite) by providing essential body salts (mineral forte powder) 25g/day.</li> </ul>
		• 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.

**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
<b>Carp culture</b>	Breeding	pond	Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ <b>0.5 - 0.7 ml/kg</b> of fish.
	Hatcheries	water	Hatching can be done in traditional happas having outer & inner happas or circular hatcheries. A mild current with fine shower is needed for circular hatcheries. Feed should not be given for 3 days.
	Nurseries	ponds	- Stock 20-30 lakhs spawns in one hectare water. Water depth should be more than 1.0 m. Feeding should be given@5-10% body weight/day.
	Carp diseases	Argulus (fish lice) infection	
EUS (Epizostic Ulcerative Syndrome)			- Spray CIFAX @ 1 litre/ 100 litre of water for one hectare fish pond with EUS infected fishes.

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**Significant past weather for the preceding bi-weekly of Imphal - West (15<sup>th</sup> to 18<sup>th</sup> June, 2018)**

Observed **21.8 mm** rainfall with **mainly cloudy to overcast sky** but **mainly clear to partly cloudy sky** on 17<sup>th</sup> and 18<sup>th</sup> morning. Maximum temperature recorded ranged from **26.7** to **30.4 °C** and minimum of **20.8** to **21.6 °C** with mean relative humidity **89.5 %** max and **67.3 %** min was recorded in the past three days with average wind speed was **3.8 – 6.1 km/ hr.**

**Weather forecast for next five days of Ukhrul (20<sup>th</sup> to 24<sup>th</sup> June, 2018)**

Likely to have light rains during next five days and partly cloudy to mainly cloudy sky with maximum temp. **28-29 °C** & minimum temp. **19-20 °C**. Relative humidity may reach upto **98 % (max RH)** & **61 % (min RH)**. The average wind speed may be **2-3 km/hr.**

<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Grain filling stage (Pre-kharif rice)	Bacterial leaf blight	- Construct bands around the crop field to maintain water level at 5-8 cm. - Drain out excess water from the field accumulated due to heavy rains.
		Sheath blight/ sheath rot	- Spray Streptocycline @ 1gm/15 litres of water. - Apply Propiconazole @ 15ml/ 15 litres water after rains.
	Nursery and land preparation of main field (Kharif rice)		- Recommended varieties: RC Maniphou-7, RC Maniphou- 10 and RC Maniphou-13. Raise rice nursery. - Encircle the nursery plot with happa after sowing at least for 10 days so that the seeds are not carried away if water level increases due to rains. - Land preparation of main field may be done for transplanting rice seedling and submerge it for 15- 20 days. Apply 65 kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling before transplanting.
<b>Kharif Maize</b>	Vegetative		- Sowing may be done. - For the crops in vegetative phase, weeding may be done after rain by hand or apply Simazine @ 0.75 kg a.i./ ha.
<b>Soybean</b>	Sowing		- Sow seed @ 40-45 kg/ha or 10-11.3 kg of seed/ sangam and the recommended variety is J.S.335. Sowing may be done at spacing of 45cm x 30cm. Treat seeds with Nativo@2g/kg seeds or with Bavistin@2.5g/kg seed or with Thiram. -Weeding may be done if the weed population is high.
<b>Groundnut</b>	Sowing		- Seed rate is 100 – 110 kg/ha and the recommended varieties are ICGS-75 & JL-24. Sow seeds at spacing 30cm x 15cm after rains. Treat seeds with Imidacloprid @ 2ml/ litre water or Bavistin @ 2.5g/ kg seed or with Thiram. - Weeding may be done if the weed population is high.
<b>Blackgram/ Rice Bean</b>	Sowing		- Sowing may be done by broadcasting or dibbling. Plot must be kept weed free to avoid insect/ pest. Weeding may be done if the weed population is high.
<b>Seeds storage</b>	Post harvest management		For seed purpose store the seeds in <b>RC-Seed Bin</b> 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.
<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Turmeric</b>	Vegetative		- For grown up plants spray Dithan M45 @ 2 to 2.5 ml/lit of water as prophylactic measures after the rain.
<b>Colocassia</b>	Vegetative		- Weeding and earthing up may be done after the wet spell. - Avoid water logging. - Prophylactic measures against leaf blight should be taken up. Spray Redomil@ 1.5g/litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after this wet spell.
<b>Cowpea</b>	Sowing		- Cowpea may be sown as an intercrop in the fruit orchard such as lemon, orange, passion fruit, etc. - Land preparation; sowing spacing: 45 – 60 cm from seed to seed and row to row; raised beds are preferred for sowing.



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- Recommended varieties: Yard long bean & Pusa Barsati.

**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
<b>Poultry (Chicken/ Duck)</b>	All age groups	• Ranikhet disease	• Strongly advised to vaccinate against Ranikhet disease. Vaccinate the flock using Lasota strain vaccine through ocular route if the age of chick is less than 21 days and through nasal route if it is older than 21 days.
		• Endoparasites	• De-worm using Levamisole Hydrochloride. Potash granules may be added in the drinking water of poultry.
		• Management	• Do not allow to consume muddy water to protect from E.coli infection. Use water sanitizer.
		• Coccidiosis	• Give Amprolium @ 2 gms/ litre of drinking water for 5-7 days.
<b>Sheep/ Goat</b>	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.
		• Management	• Fly repellent must be used in the premises of the sheds. • Protect from thunder showers. Protect from after winds (loo).
<b>Pig</b>	All age groups except the young ones	• De-worming	• De-worm with Albendazole @7.5 mg/kg b.wt.
		• Skin disease	• Sprayer of <i>Anti-Psoroptic</i> may be used.
		• Management	• Breeding must be advocated continuously. • Protect from thunder showers especially during night.
<b>Cattle</b>	All age groups excepts the young ones	• Vaccination	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated. • Cases of H.S. may be encountered during this period. Immediate treatment using appropriate drugs with the help of Consultant must be advocated to safe the animals. • 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.

**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
<b>Carp culture</b>	Breeding	pond	Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ <b>0.5 - 0.7 ml/kg</b> of fish.
	Hatcheries	water	Hatching can be done in traditional happas having outer & inner happas or circular hatcheries. A mild current with fine shower is needed for circular hatcheries. Feed should not be given for 3 days.
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EUS (Epizostic Ulcerative Syndrome)			- Spray CIFAX @ 1 litre/ 100 litre of water for one hectare fish pond with EUS infected fishes.

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 Scientist i/c, GKMS