



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

**MANIPUR BULLETIN****6<sup>th</sup> 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 7<sup>th</sup> to 11<sup>th</sup> July, 2018 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (3<sup>rd</sup> to 5<sup>th</sup> July, 2018)**

Observed **2.8 mm** rainfall with **mainly cloudy to overcast sky** during past three days. Maximum temperature recorded ranged from **26.4 to 31.7 °C** and minimum of **22.2 to 22.7 °C** with mean relative humidity **88.7 %** max and **70.0 %** min was recorded in the past three days with average wind speed was **1.4 – 3.4 km/ hr.**

**Weather forecast for next five days of Imphal East (7<sup>th</sup> to 11<sup>th</sup> July, 2018)**

Likely to have moderate rains upto Monday then light rains thereafter and mainly cloudy to overcast sky with maximum temp. **30-32 °C** & minimum temp. **23 °C**. Relative humidity may reach upto **100 %** (max RH) & **63 %** (min RH). The average wind speed may be **2 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>	Maturity to harvesting stage ( <b>Pre-kharif rice</b> )		<ul style="list-style-type: none"> <li>- Rice can be harvested when 80% of panicles turn hard &amp; golden yellow. Over maturity should be avoided to reduce shattering losses.</li> <li>- If the crop is in ready to harvest stage then harvest it after rains.</li> <li>- After harvesting prepare the plot for double cropping; same variety or late variety may be grown.</li> <li>- Recommended rice varieties are RC Maniphou-12, RC Maniphou-7, RC Maniphou 10 or 13.</li> </ul>
	Nursery and transplanting to tillering ( <b>Kharif rice</b> )		<ul style="list-style-type: none"> <li>- 21-25 days old seedlings may be uprooted and transplanted in the main field within 2 days.</li> <li>- Seedling of Main season rice can be raised upto first week of July and can be transplanted within 3<sup>rd</sup> week of July (for late transplanting).</li> <li>- Weed control: Apply Butachlor @ 25 kg/ ha within one week of transplanting.</li> <li>- If the crop is in tillering stage, weeding may be done manually or by using conoweeder followed by top dressing with Urea@33kg/ ha</li> </ul>
<b>Kharif Maize</b>	Vegetative		<ul style="list-style-type: none"> <li>- For the crops in vegetative phase, weeding may be done before rain by hand or apply Simazine @ 0.75 kg a.i. / ha.</li> <li>- Maintain proper drainage system to avoid water logging.</li> </ul>
<b>Soybean/ Groundnut</b>	Vegetative to flowering		<ul style="list-style-type: none"> <li>- Hand weeding should be done before 30-35 days after sowing soybean and groundnut. Also, earthing-up and thinning may be done after rains.</li> <li>- Monitor for insect pest infestation.</li> </ul>
<b>Blackgram/ Rice Bean</b>	Vegetative		<ul style="list-style-type: none"> <li>- Weeding may be done after rain if the weed population is high.</li> <li>- Monitor for insect pest infestation.</li> </ul>
<b>Seeds storage</b>	Post-harvest management		<p>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.</p> <p>For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.</p>
<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Orange/Lime/ Lemon/Papaya/ Litchi/ Tree bean</b>	Planting	Lichen incidence	<ul style="list-style-type: none"> <li>- If lichen is observed, then scrap out the affected area and paint with Bordeaux paste or Benlate.</li> </ul>
<b>Citrus</b>			<ul style="list-style-type: none"> <li>- Spray Carbendazim @2g/lit water or Metalxyl + Mencozeb @ 2.5 g/lit water on sunny day. After 7 days spray Imidachloprid @ 5ml/ 10 lit of water.</li> <li>- Apply 350 g Urea, 600 g SSP and 300 g MOP per tree in circular trench about 30cm from trunk.</li> </ul>
<b>Passion Fruit</b>	Fruiting	Fruit rot	Spray Metalxyl + Mencozeb @ 2 g/lit water at 7 days interval.
		Anthraxnose	Spray Carbendazim 12% + Mencozeb 63% WP @ 1 mg/ lit of water.
		Collar rot	Drench the soil of collar region with 1% Bordeaux mixture.
		Brown spot	- Remove the infected leaves and burn and spray Zineb @ 2 mg/ lit of water.
		Termite	Apply Chloropyriphos 10%G @ 25kg/ha into the soil.
		Fruit fly	Apply poison baiting with Jaggary + fruit juice + Malathion (20:20:1) @ 40-50 baits/ ha.
		Thrips	Spray Imidachloprid 17.8% SL @ 1ml/ lit of water.

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<b>Pineapple</b>	Fruiting		Spray Zineb @ 2g/lit of water.
<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	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 after the rain.
<b>Colocassia</b>	Vegetative	Leaf blight	- 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.

**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.

<b>Name of bird/ animal</b>	<b>Stage</b>	<b>Disease and Management</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ Duck)</b>	All age groups	• Fungal Toxin	• Avoid consumption of feed with fungal growth.
		• 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.
<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.
		• 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).
<b>Pig</b>	All age groups except the young ones	• De-worming	• De-worm with Albendazole @ 7.5 mg/kg b.wt.
		• Vaccination	• Vaccinate against FMD.
		• Management	• 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.
		• 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.

<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
<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.

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



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**Weather forecast for next five days of Imphal West (7<sup>th</sup> to 11<sup>th</sup> July, 2018)**

Likely to have moderate rains upto Monday then light rains thereafter and mainly cloudy to overcast sky with maximum temp. **30-32 °C** & minimum temp. **23 °C**. Relative humidity may reach upto **100 %** (max RH) & **78 %** (min RH). The average wind speed may be **2-4 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>	Maturity to harvesting stage (Pre-kharif rice)		<ul style="list-style-type: none"> <li>- Rice can be harvested when 80% of panicles turn hard &amp; golden yellow. Over maturity should be avoided to reduce shattering losses.</li> <li>- If the crop is in ready to harvest stage then harvest it after rains.</li> <li>- After harvesting prepare the plot for double cropping; same variety or late variety may be grown.</li> <li>- Recommended rice varieties are RC Maniphou-12, RC Maniphou-7, RC Maniphou 10 or 13.</li> </ul>
	Nursery and transplanting to tillering (Kharif rice)		<ul style="list-style-type: none"> <li>- 21-25 days old seedlings may be uprooted and transplanted in the main field within 2 days.</li> <li>- Seedling of Main season rice can be raised upto first week of July and can be transplanted within 3<sup>rd</sup> week of July (for late transplanting).</li> <li>- Weed control: Apply Butachlor @ 25 kg/ ha within one week of transplanting.</li> <li>- If the crop is in tillering stage, weeding may be done manually or by using conoweeder followed by top dressing with Urea@33kg/ ha</li> </ul>
<b>Kharif Maize</b>	Vegetative		<ul style="list-style-type: none"> <li>- For the crops in vegetative phase, weeding may be done before rain by hand or apply Simazine @ 0.75 kg a.i. / ha.</li> <li>- Maintain proper drainage system to avoid water logging.</li> </ul>
<b>Soybean/ Groundnut</b>	Vegetative to flowering		<ul style="list-style-type: none"> <li>- Hand weeding should be done before 30-35 days after sowing soybean and groundnut. Also, earthing-up and thinning may be done after rains.</li> <li>- Monitor for insect pest infestation.</li> </ul>
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<b>Seeds storage</b>	Post-harvest management		<p>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.</p> <p>For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.</p>
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<b>Citrus</b>			<ul style="list-style-type: none"> <li>- Spray Carbendazim @2g/lit water or Metalxyl + Mencozeb @ 2.5 g/lit water on sunny day. After 7 days spray Imidachloprid @ 5ml/ 10 lit of water.</li> <li>- Apply 350 g Urea, 600 g SSP and 300 g MOP per tree in circular trench about 30cm from trunk.</li> </ul>
<b>Passion Fruit</b>	Fruiting	Fruit rot	Spray Metalxyl + Mencozeb @ 2 g/lit water at 7 days interval.
		Anthraxnose	Spray Carbendazim 12% + Mencozeb 63% WP @ 1 mg/ lit of water.
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		Brown spot	- Remove the infected leaves and burn and spray Zineb @ 2 mg/ lit of water.
		Termite	Apply Chloropyriphos 10%G @ 25kg/ha into the soil.
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Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
<b>Poultry (Chicken/ Duck)</b>	All age groups	• Fungal Toxin	• Avoid consumption of feed with fungal growth.
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		• 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.
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### 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.
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**Weather forecast for next five days of Senapati (7<sup>th</sup> to 11<sup>th</sup> July, 2018)**

Likely to have moderate rains upto Monday then light rains thereafter and mainly cloudy to overcast sky with maximum temp. **29-30 °C** & minimum temp. **20-22 °C**. Relative humidity may reach upto **100 %** (max RH) & **77 %** (min RH). The average wind speed may be **2 km/hr.**

<b>Field Crops</b>			
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**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN****6<sup>th</sup> 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 7<sup>th</sup> to 11<sup>th</sup> July, 2018 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (3<sup>rd</sup> to 5<sup>th</sup> July, 2018)**

Observed **2.8 mm** rainfall with **mainly cloudy to overcast sky** during past three days. Maximum temperature recorded ranged from **26.4 to 31.7 °C** and minimum of **22.2 to 22.7 °C** with mean relative humidity **88.7 %** max and **70.0 %** min was recorded in the past three days with average wind speed was **1.4 – 3.4 km/ hr.**

**Weather forecast for next five days of Tamenglong (7<sup>th</sup> to 11<sup>th</sup> July, 2018)**

Likely to have moderate rains upto Monday then light rains thereafter and mainly cloudy to overcast sky with maximum temp. **29-31 °C** & minimum temp. **22 °C**. Relative humidity may reach upto **100 %** (max RH) & **76 %** (min RH). The average wind speed may be **2 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>	Maturity to harvesting stage ( <b>Pre-kharif rice</b> )		<ul style="list-style-type: none"> <li>- Rice can be harvested when 80% of panicles turn hard &amp; golden yellow. Over maturity should be avoided to reduce shattering losses.</li> <li>- If the crop is in ready to harvest stage then harvest it after rains.</li> <li>- After harvesting prepare the plot for double cropping; same variety or late variety may be grown.</li> <li>- Recommended rice varieties are RC Maniphou-12, RC Maniphou-7, RC Maniphou 10 or 13.</li> </ul>
	Nursery and transplanting to tillering ( <b>Kharif rice</b> )		<ul style="list-style-type: none"> <li>- 21-25 days old seedlings may be uprooted and transplanted in the main field within 2 days.</li> <li>- Seedling of Main season rice can be raised upto first week of July and can be transplanted within 3<sup>rd</sup> week of July (for late transplanting).</li> <li>- Weed control: Apply Butachlor @ 25 kg/ ha within one week of transplanting.</li> <li>- If the crop is in tillering stage, weeding may be done manually or by using conoweeder followed by top dressing with Urea@33kg/ ha</li> </ul>
<b>Kharif Maize</b>	Vegetative		<ul style="list-style-type: none"> <li>- For the crops in vegetative phase, weeding may be done before rain by hand or apply Simazine @ 0.75 kg a.i. / ha.</li> <li>- Maintain proper drainage system to avoid water logging.</li> </ul>
<b>Soybean/ Groundnut</b>	Vegetative to flowering		<ul style="list-style-type: none"> <li>- Hand weeding should be done before 30-35 days after sowing soybean and groundnut. Also, earthing-up and thinning may be done after rains.</li> <li>- Monitor for insect pest infestation.</li> </ul>
<b>Blackgram/ Rice Bean</b>	Vegetative		<ul style="list-style-type: none"> <li>- Weeding may be done after rain if the weed population is high.</li> <li>- Monitor for insect pest infestation.</li> </ul>
<b>Seeds storage</b>	Post-harvest management		<p>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.</p> <p>For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.</p>
<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Orange/Lime/ Lemon/Papaya/ Litchi/ Tree bean</b>	Planting	Lichen incidence	<ul style="list-style-type: none"> <li>- If lichen is observed, then scrap out the affected area and paint with Bordeaux paste or Benlate.</li> </ul>
<b>Citrus</b>			<ul style="list-style-type: none"> <li>- Spray Carbendazim @2g/lit water or Metalxyl + Mencozeb @ 2.5 g/lit water on sunny day. After 7 days spray Imidachloprid @ 5ml/ 10 lit of water.</li> <li>- Apply 350 g Urea, 600 g SSP and 300 g MOP per tree in circular trench about 30cm from trunk.</li> </ul>
<b>Passion Fruit</b>	Fruiting	Fruit rot	Spray Metalxyl + Mencozeb @ 2 g/lit water at 7 days interval.
		Anthraxnose	Spray Carbendazim 12% + Mencozeb 63% WP @ 1 mg/ lit of water.
		Collar rot	Drench the soil of collar region with 1% Bordeaux mixture.
		Brown spot	- Remove the infected leaves and burn and spray Zineb @ 2 mg/ lit of water.
		Termite	Apply Chloropyriphos 10%G @ 25kg/ha into the soil.
		Fruit fly	Apply poison baiting with Jaggary + fruit juice + Malathion (20:20:1) @ 40-50 baits/ ha.
		Thrips	Spray Imidachloprid 17.8% SL @ 1ml/ lit of water.

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

Manipur Centre, Lamphelpat, Imphal - 795 004

**“Gramin Krishi Mausam Seva”**

<b>Pineapple</b>	Fruiting		Spray Zineb @ 2g/lit of water.
<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	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 after the rain.
<b>Colocassia</b>	Vegetative	Leaf blight	- 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.

**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	• Fungal Toxin	• Avoid consumption of feed with fungal growth.
		• 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.
<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.
		• 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).
<b>Pig</b>	All age groups except the young ones	• De-worming	• De-worm with Albendazole @ 7.5 mg/kg b.wt.
		• Vaccination	• Vaccinate against FMD.
		• Management	• 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.
		• 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
<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.

(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****6<sup>th</sup> 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 7<sup>th</sup> to 11<sup>th</sup> July, 2018 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (3<sup>rd</sup> to 5<sup>th</sup> July, 2018)**

Observed **2.8 mm** rainfall with **mainly cloudy to overcast sky** during past three days. Maximum temperature recorded ranged from **26.4 to 31.7 °C** and minimum of **22.2 to 22.7 °C** with mean relative humidity **88.7 %** max and **70.0 %** min was recorded in the past three days with average wind speed was **1.4 – 3.4 km/ hr.**

**Weather forecast for next five days of Thoubal (7<sup>th</sup> to 11<sup>th</sup> July, 2018)**

Likely to have moderate rains upto Monday then light rains thereafter and mainly cloudy to overcast sky with maximum temp. **30-33 °C** & minimum temp. **24 °C**. Relative humidity may reach upto **100 %** (max RH) & **77 %** (min RH). The average wind speed may be **2-4 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>	Maturity to harvesting stage (Pre-kharif rice)		<ul style="list-style-type: none"> <li>- Rice can be harvested when 80% of panicles turn hard &amp; golden yellow. Over maturity should be avoided to reduce shattering losses.</li> <li>- If the crop is in ready to harvest stage then harvest it after rains.</li> <li>- After harvesting prepare the plot for double cropping; same variety or late variety may be grown.</li> <li>- Recommended rice varieties are RC Maniphou-12, RC Maniphou-7, RC Maniphou 10 or 13.</li> </ul>
	Nursery and transplanting to tillering (Kharif rice)		<ul style="list-style-type: none"> <li>- 21-25 days old seedlings may be uprooted and transplanted in the main field within 2 days.</li> <li>- Seedling of Main season rice can be raised upto first week of July and can be transplanted within 3<sup>rd</sup> week of July (for late transplanting).</li> <li>- Weed control: Apply Butachlor @ 25 kg/ ha within one week of transplanting.</li> <li>- If the crop is in tillering stage, weeding may be done manually or by using conoweeder followed by top dressing with Urea@33kg/ ha</li> </ul>
<b>Kharif Maize</b>	Vegetative		<ul style="list-style-type: none"> <li>- For the crops in vegetative phase, weeding may be done before rain by hand or apply Simazine @ 0.75 kg a.i. / ha.</li> <li>- Maintain proper drainage system to avoid water logging.</li> </ul>
<b>Soybean/ Groundnut</b>	Vegetative to flowering		<ul style="list-style-type: none"> <li>- Hand weeding should be done before 30-35 days after sowing soybean and groundnut. Also, earthing-up and thinning may be done after rains.</li> <li>- Monitor for insect pest infestation.</li> </ul>
<b>Blackgram/ Rice Bean</b>	Vegetative		<ul style="list-style-type: none"> <li>- Weeding may be done after rain if the weed population is high.</li> <li>- Monitor for insect pest infestation.</li> </ul>
<b>Seeds storage</b>	Post-harvest management		<p>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.</p> <p>For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.</p>
<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Orange/Lime/ Lemon/Papaya/ Litchi/ Tree bean</b>	Planting	Lichen incidence	<ul style="list-style-type: none"> <li>- If lichen is observed, then scrap out the affected area and paint with Bordeaux paste or Benlate.</li> </ul>
<b>Citrus</b>			<ul style="list-style-type: none"> <li>- Spray Carbendazim @2g/lit water or Metalxyl + Mencozeb @ 2.5 g/lit water on sunny day. After 7 days spray Imidachloprid @ 5ml/ 10 lit of water.</li> <li>- Apply 350 g Urea, 600 g SSP and 300 g MOP per tree in circular trench about 30cm from trunk.</li> </ul>
<b>Passion Fruit</b>	Fruiting	Fruit rot	Spray Metalxyl + Mencozeb @ 2 g/lit water at 7 days interval.
		Anthraxnose	Spray Carbendazim 12% + Mencozeb 63% WP @ 1 mg/ lit of water.
		Collar rot	Drench the soil of collar region with 1% Bordeaux mixture.
		Brown spot	- Remove the infected leaves and burn and spray Zineb @ 2 mg/ lit of water.
		Termite	Apply Chloropyriphos 10%G @ 25kg/ha into the soil.
		Fruit fly	Apply poison baiting with Jaggary + fruit juice + Malathion (20:20:1) @ 40-50 baits/ ha.
		Thrips	Spray Imidachloprid 17.8% SL @ 1ml/ lit of water.

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**“Gramin Krishi Mausam Seva”**

<b>Pineapple</b>	Fruiting		Spray Zineb @ 2g/lit of water.
<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	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 after the rain.
<b>Colocassia</b>	Vegetative	Leaf blight	- 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.

**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	• Fungal Toxin	• Avoid consumption of feed with fungal growth.
		• 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.
<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.
		• 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).
<b>Pig</b>	All age groups except the young ones	• De-worming	• De-worm with Albendazole @ 7.5 mg/kg b.wt.
		• Vaccination	• Vaccinate against FMD.
		• Management	• 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.
		• 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
<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.

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**MANIPUR BULLETIN****6<sup>th</sup> July, 2018****Ukhrul**

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**Weather forecast for next five days of Ukhrul (7<sup>th</sup> to 11<sup>th</sup> July, 2018)**

Likely to have moderate rains upto Monday then light rains thereafter and mainly cloudy to overcast sky with maximum temp. **29-31 °C** & minimum temp. **21-22 °C**. Relative humidity may reach upto **100 %** (max RH) & **80 %** (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>	Maturity to harvesting stage (Pre-kharif rice)		<ul style="list-style-type: none"> <li>- Rice can be harvested when 80% of panicles turn hard &amp; golden yellow. Over maturity should be avoided to reduce shattering losses.</li> <li>- If the crop is in ready to harvest stage then harvest it after rains.</li> <li>- After harvesting prepare the plot for double cropping; same variety or late variety may be grown.</li> <li>- Recommended rice varieties are RC Maniphou-12, RC Maniphou-7, RC Maniphou 10 or 13.</li> </ul>
	Nursery and transplanting to tillering (Kharif rice)		<ul style="list-style-type: none"> <li>- 21-25 days old seedlings may be uprooted and transplanted in the main field within 2 days.</li> <li>- Seedling of Main season rice can be raised upto first week of July and can be transplanted within 3<sup>rd</sup> week of July (for late transplanting).</li> <li>- Weed control: Apply Butachlor @ 25 kg/ ha within one week of transplanting.</li> <li>- If the crop is in tillering stage, weeding may be done manually or by using conoweeder followed by top dressing with Urea@33kg/ ha</li> </ul>
<b>Kharif Maize</b>	Vegetative		<ul style="list-style-type: none"> <li>- For the crops in vegetative phase, weeding may be done before rain by hand or apply Simazine @ 0.75 kg a.i. / ha.</li> <li>- Maintain proper drainage system to avoid water logging.</li> </ul>
<b>Soybean/ Groundnut</b>	Vegetative to flowering		<ul style="list-style-type: none"> <li>- Hand weeding should be done before 30-35 days after sowing soybean and groundnut. Also, earthing-up and thinning may be done after rains.</li> <li>- Monitor for insect pest infestation.</li> </ul>
<b>Blackgram/ Rice Bean</b>	Vegetative		<ul style="list-style-type: none"> <li>- Weeding may be done after rain if the weed population is high.</li> <li>- Monitor for insect pest infestation.</li> </ul>
<b>Seeds storage</b>	Post-harvest management		<p>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.</p> <p>For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.</p>
<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Orange/Lime/ Lemon/Papaya/ Litchi/ Tree bean</b>	Planting	Lichen incidence	<ul style="list-style-type: none"> <li>- If lichen is observed, then scrap out the affected area and paint with Bordeaux paste or Benlate.</li> </ul>
<b>Citrus</b>			<ul style="list-style-type: none"> <li>- Spray Carbendazim @2g/lit water or Metalxyl + Mencozeb @ 2.5 g/lit water on sunny day. After 7 days spray Imidachloprid @ 5ml/ 10 lit of water.</li> <li>- Apply 350 g Urea, 600 g SSP and 300 g MOP per tree in circular trench about 30cm from trunk.</li> </ul>
<b>Passion Fruit</b>	Fruiting	Fruit rot	Spray Metalxyl + Mencozeb @ 2 g/lit water at 7 days interval.
		Anthraxnose	Spray Carbendazim 12% + Mencozeb 63% WP @ 1 mg/ lit of water.
		Collar rot	Drench the soil of collar region with 1% Bordeaux mixture.
		Brown spot	- Remove the infected leaves and burn and spray Zineb @ 2 mg/ lit of water.
		Termite	Apply Chloropyriphos 10%G @ 25kg/ha into the soil.
		Fruit fly	Apply poison baiting with Jaggery + fruit juice + Malathion (20:20:1) @ 40-50 baits/ ha.
		Thrips	Spray Imidachloprid 17.8% SL @ 1ml/ lit of water.



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**“Gramin Krishi Mausam Seva”**



<b>Pineapple</b>	Fruiting		Spray Zineb @ 2g/lit of water.
<b>Turmeric</b>	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 after the rain.
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### 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	• Fungal Toxin	• Avoid consumption of feed with fungal growth.
		• Endoparasites	• De-worm using Levamisole Hydrochloride. Potash granules may be added in the drinking water of poultry.
		• Management	• Do not allow to <i>consume muddy water to protect from E.coli infection. Use water sanitizer.</i>
<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.
		• 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).
<b>Pig</b>	All age groups except the young ones	• De-worming	• De-worm with Albendazole @ 7.5 mg/kg b.wt.
		• Vaccination	• Vaccinate against FMD.
		• Management	• 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.
		• 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
<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.

(I. Meghachandra Singh)  
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**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN****6<sup>th</sup> 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 7<sup>th</sup> to 11<sup>th</sup> July, 2018 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (3<sup>rd</sup> to 5<sup>th</sup> July, 2018)**

Observed **2.8 mm** rainfall with **mainly cloudy to overcast sky** during past three days. Maximum temperature recorded ranged from **26.4 to 31.7 °C** and minimum of **22.2 to 22.7 °C** with mean relative humidity **88.7 %** max and **70.0 %** min was recorded in the past three days with average wind speed was **1.4 – 3.4 km/ hr.**

**Weather forecast for next five days of Bishnupur (7<sup>th</sup> to 11<sup>th</sup> July, 2018)**

Likely to have moderate rains upto Monday then light rains thereafter and mainly cloudy to overcast sky with maximum temp. **30-33 °C** & minimum temp. **24 °C**. Relative humidity may reach upto **100 %** (max RH) & **76 %** (min RH). The average wind speed may be **2 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>	Maturity to harvesting stage (Pre-kharif rice)		<ul style="list-style-type: none"> <li>- Rice can be harvested when 80% of panicles turn hard &amp; golden yellow. Over maturity should be avoided to reduce shattering losses.</li> <li>- If the crop is in ready to harvest stage then harvest it after rains.</li> <li>- After harvesting prepare the plot for double cropping; same variety or late variety may be grown.</li> <li>- Recommended rice varieties are RC Maniphou-12, RC Maniphou-7, RC Maniphou 10 or 13.</li> </ul>
	Nursery and transplanting to tillering (Kharif rice)		<ul style="list-style-type: none"> <li>- 21-25 days old seedlings may be uprooted and transplanted in the main field within 2 days.</li> <li>- Seedling of Main season rice can be raised upto first week of July and can be transplanted within 3<sup>rd</sup> week of July (for late transplanting).</li> <li>- Weed control: Apply Butachlor @ 25 kg/ ha within one week of transplanting.</li> <li>- If the crop is in tillering stage, weeding may be done manually or by using conoweeder followed by top dressing with Urea@33kg/ ha</li> </ul>
<b>Kharif Maize</b>	Vegetative		<ul style="list-style-type: none"> <li>- For the crops in vegetative phase, weeding may be done before rain by hand or apply Simazine @ 0.75 kg a.i. / ha.</li> <li>- Maintain proper drainage system to avoid water logging.</li> </ul>
<b>Soybean/ Groundnut</b>	Vegetative to flowering		<ul style="list-style-type: none"> <li>- Hand weeding should be done before 30-35 days after sowing soybean and groundnut. Also, earthing-up and thinning may be done after rains.</li> <li>- Monitor for insect pest infestation.</li> </ul>
<b>Blackgram/ Rice Bean</b>	Vegetative		<ul style="list-style-type: none"> <li>- Weeding may be done after rain if the weed population is high.</li> <li>- Monitor for insect pest infestation.</li> </ul>
<b>Seeds storage</b>	Post-harvest management		<p>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.</p> <p>For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.</p>
<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Orange/Lime/ Lemon/Papaya/ Litchi/ Tree bean</b>	Planting	Lichen incidence	<ul style="list-style-type: none"> <li>- If lichen is observed, then scrap out the affected area and paint with Bordeaux paste or Benlate.</li> </ul>
<b>Citrus</b>			<ul style="list-style-type: none"> <li>- Spray Carbendazim @2g/lit water or Metalxyl + Mencozeb @ 2.5 g/lit water on sunny day. After 7 days spray Imidachloprid @ 5ml/ 10 lit of water.</li> <li>- Apply 350 g Urea, 600 g SSP and 300 g MOP per tree in circular trench about 30cm from trunk.</li> </ul>
<b>Passion Fruit</b>	Fruiting	Fruit rot	Spray Metalxyl + Mencozeb @ 2 g/lit water at 7 days interval.
		Anthraxnose	Spray Carbendazim 12% + Mencozeb 63% WP @ 1 mg/ lit of water.
		Collar rot	Drench the soil of collar region with 1% Bordeaux mixture.
		Brown spot	- Remove the infected leaves and burn and spray Zineb @ 2 mg/ lit of water.
		Termite	Apply Chloropyriphos 10%G @ 25kg/ha into the soil.
		Fruit fly	Apply poison baiting with Jaggary + fruit juice + Malathion (20:20:1) @ 40-50 baits/ ha.
		Thrips	Spray Imidachloprid 17.8% SL @ 1ml/ lit of water.



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

Manipur Centre, Lamphelpat, Imphal - 795 004

**“Gramin Krishi Mausam Seva”**

<b>Pineapple</b>	Fruiting		Spray Zineb @ 2g/lit of water.
<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	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 after the rain.
<b>Colocassia</b>	Vegetative	Leaf blight	- 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.

**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	• Fungal Toxin	• Avoid consumption of feed with fungal growth.
		• 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.
<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.
		• 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).
<b>Pig</b>	All age groups except the young ones	• De-worming	• De-worm with Albendazole @ 7.5 mg/kg b.wt.
		• Vaccination	• Vaccinate against FMD.
		• Management	• 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.
		• 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
<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.

(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****6<sup>th</sup> 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 7<sup>th</sup> to 11<sup>th</sup> July, 2018 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (3<sup>rd</sup> to 5<sup>th</sup> July, 2018)**

Observed **2.8 mm** rainfall with **mainly cloudy to overcast sky** during past three days. Maximum temperature recorded ranged from **26.4 to 31.7 °C** and minimum of **22.2 to 22.7 °C** with mean relative humidity **88.7 %** max and **70.0 %** min was recorded in the past three days with average wind speed was **1.4 – 3.4 km/ hr.**

**Weather forecast for next five days of Chandel (7<sup>th</sup> to 11<sup>th</sup> July, 2018)**

Likely to have moderate rains upto Monday then light rains thereafter and mainly cloudy to overcast sky with maximum temp. **30-32 °C** & minimum temp. **23 °C**. Relative humidity may reach upto **99 %** (max RH) & **74 %** (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>	Maturity to harvesting stage ( <b>Pre-kharif rice</b> )		<ul style="list-style-type: none"> <li>- Rice can be harvested when 80% of panicles turn hard &amp; golden yellow. Over maturity should be avoided to reduce shattering losses.</li> <li>- If the crop is in ready to harvest stage then harvest it after rains.</li> <li>- After harvesting prepare the plot for double cropping; same variety or late variety may be grown.</li> <li>- Recommended rice varieties are RC Maniphou-12, RC Maniphou-7, RC Maniphou 10 or 13.</li> </ul>
	Nursery and transplanting to tillering ( <b>Kharif rice</b> )		<ul style="list-style-type: none"> <li>- 21-25 days old seedlings may be uprooted and transplanted in the main field within 2 days.</li> <li>- Seedling of Main season rice can be raised upto first week of July and can be transplanted within 3<sup>rd</sup> week of July (for late transplanting).</li> <li>- Weed control: Apply Butachlor @ 25 kg/ ha within one week of transplanting.</li> <li>- If the crop is in tillering stage, weeding may be done manually or by using conoweeder followed by top dressing with Urea@33kg/ ha</li> </ul>
<b>Kharif Maize</b>	Vegetative		<ul style="list-style-type: none"> <li>- For the crops in vegetative phase, weeding may be done before rain by hand or apply Simazine @ 0.75 kg a.i. / ha.</li> <li>- Maintain proper drainage system to avoid water logging.</li> </ul>
<b>Soybean/ Groundnut</b>	Vegetative to flowering		<ul style="list-style-type: none"> <li>- Hand weeding should be done before 30-35 days after sowing soybean and groundnut. Also, earthing-up and thinning may be done after rains.</li> <li>- Monitor for insect pest infestation.</li> </ul>
<b>Blackgram/ Rice Bean</b>	Vegetative		<ul style="list-style-type: none"> <li>- Weeding may be done after rain if the weed population is high.</li> <li>- Monitor for insect pest infestation.</li> </ul>
<b>Seeds storage</b>	Post-harvest management		<p>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.</p> <p>For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.</p>
<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Orange/Lime/ Lemon/Papaya/ Litchi/ Tree bean</b>	Planting	Lichen incidence	<ul style="list-style-type: none"> <li>- If lichen is observed, then scrap out the affected area and paint with Bordeaux paste or Benlate.</li> </ul>
<b>Citrus</b>			<ul style="list-style-type: none"> <li>- Spray Carbendazim @2g/lit water or Metalxyl + Mencozeb @ 2.5 g/lit water on sunny day. After 7 days spray Imidachloprid @ 5ml/ 10 lit of water.</li> <li>- Apply 350 g Urea, 600 g SSP and 300 g MOP per tree in circular trench about 30cm from trunk.</li> </ul>
<b>Passion Fruit</b>	Fruiting	Fruit rot	Spray Metalxyl + Mencozeb @ 2 g/lit water at 7 days interval.
		Anthraxnose	Spray Carbendazim 12% + Mencozeb 63% WP @ 1 mg/ lit of water.
		Collar rot	Drench the soil of collar region with 1% Bordeaux mixture.
		Brown spot	- Remove the infected leaves and burn and spray Zineb @ 2 mg/ lit of water.
		Termite	Apply Chloropyriphos 10%G @ 25kg/ha into the soil.
		Fruit fly	Apply poison baiting with Jaggary + fruit juice + Malathion (20:20:1) @ 40-50 baits/ ha.
		Thrips	Spray Imidachloprid 17.8% SL @ 1ml/ lit of water.



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<b>Pineapple</b>	Fruiting		Spray Zineb @ 2g/lit of water.
<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	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 after the rain.
<b>Colocassia</b>	Vegetative	Leaf blight	- 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.

### 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	• Fungal Toxin	• Avoid consumption of feed with fungal growth.
		• 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.
<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.
		• 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).
<b>Pig</b>	All age groups except the young ones	• De-worming	• De-worm with Albendazole @ 7.5 mg/kg b.wt.
		• Vaccination	• Vaccinate against FMD.
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<b>Cattle</b>	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
<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.

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**MANIPUR BULLETIN****6<sup>th</sup> July, 2018****Churachandpur**

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**Weather forecast for next five days of Churachandpur (7<sup>th</sup> to 11<sup>th</sup> July, 2018)**

Likely to have moderate rains upto Monday then light rains thereafter and mainly cloudy to overcast sky with maximum temp. **30-32 °C** & minimum temp. **23 °C**. Relative humidity may reach upto **100 %** (max RH) & **82 %** (min RH). The average wind speed may be **0-2 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>	Maturity to harvesting stage (Pre-kharif rice)		<ul style="list-style-type: none"> <li>- Rice can be harvested when 80% of panicles turn hard &amp; golden yellow. Over maturity should be avoided to reduce shattering losses.</li> <li>- If the crop is in ready to harvest stage then harvest it after rains.</li> <li>- After harvesting prepare the plot for double cropping; same variety or late variety may be grown.</li> <li>- Recommended rice varieties are RC Maniphou-12, RC Maniphou-7, RC Maniphou 10 or 13.</li> </ul>
	Nursery and transplanting to tillering (Kharif rice)		<ul style="list-style-type: none"> <li>- 21-25 days old seedlings may be uprooted and transplanted in the main field within 2 days.</li> <li>- Seedling of Main season rice can be raised upto first week of July and can be transplanted within 3<sup>rd</sup> week of July (for late transplanting).</li> <li>- Weed control: Apply Butachlor @ 25 kg/ ha within one week of transplanting.</li> <li>- If the crop is in tillering stage, weeding may be done manually or by using conoweeder followed by top dressing with Urea@33kg/ ha</li> </ul>
<b>Kharif Maize</b>	Vegetative		<ul style="list-style-type: none"> <li>- For the crops in vegetative phase, weeding may be done before rain by hand or apply Simazine @ 0.75 kg a.i. / ha.</li> <li>- Maintain proper drainage system to avoid water logging.</li> </ul>
<b>Soybean/ Groundnut</b>	Vegetative to flowering		<ul style="list-style-type: none"> <li>- Hand weeding should be done before 30-35 days after sowing soybean and groundnut. Also, earthing-up and thinning may be done after rains.</li> <li>- Monitor for insect pest infestation.</li> </ul>
<b>Blackgram/ Rice Bean</b>	Vegetative		<ul style="list-style-type: none"> <li>- Weeding may be done after rain if the weed population is high.</li> <li>- Monitor for insect pest infestation.</li> </ul>
<b>Seeds storage</b>	Post-harvest management		<p>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.</p> <p>For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.</p>
<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Orange/Lime/ Lemon/Papaya/ Litchi/ Tree bean</b>	Planting	Lichen incidence	<ul style="list-style-type: none"> <li>- If lichen is observed, then scrap out the affected area and paint with Bordeaux paste or Benlate.</li> </ul>
<b>Citrus</b>			<ul style="list-style-type: none"> <li>- Spray Carbendazim @2g/lit water or Metalxyl + Mencozeb @ 2.5 g/lit water on sunny day. After 7 days spray Imidachloprid @ 5ml/ 10 lit of water.</li> <li>- Apply 350 g Urea, 600 g SSP and 300 g MOP per tree in circular trench about 30cm from trunk.</li> </ul>
<b>Passion Fruit</b>	Fruiting	Fruit rot	Spray Metalxyl + Mencozeb @ 2 g/lit water at 7 days interval.
		Anthraxnose	Spray Carbendazim 12% + Mencozeb 63% WP @ 1 mg/ lit of water.
		Collar rot	Drench the soil of collar region with 1% Bordeaux mixture.
		Brown spot	- Remove the infected leaves and burn and spray Zineb @ 2 mg/ lit of water.
		Termite	Apply Chloropyriphos 10%G @ 25kg/ha into the soil.
		Fruit fly	Apply poison baiting with Jaggary + fruit juice + Malathion (20:20:1) @ 40-50 baits/ ha.
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<b>Pineapple</b>	Fruiting		Spray Zineb @ 2g/lit of water.
<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	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 after the rain.
<b>Colocassia</b>	Vegetative	Leaf blight	- 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.

### 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	• Fungal Toxin	• Avoid consumption of feed with fungal growth.
		• 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.
<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.
		• 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).
<b>Pig</b>	All age groups except the young ones	• De-worming	• De-worm with Albendazole @ 7.5 mg/kg b.wt.
		• Vaccination	• Vaccinate against FMD.
		• Management	• 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.
		• 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
<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.

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