



**ICAR Research Complex for N.E.H. Region  
Manipur Centre, Lamphelpat, Imphal - 795 004**



**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN**

**15<sup>th</sup> May, 2015**

**Bishnupur**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 16<sup>th</sup> to 20<sup>th</sup> May, 2015 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (12<sup>th</sup> to 14<sup>th</sup> May, 2015)**

During last three days sky was mainly clear to partly cloudy. **No** rainfall was recorded during last three days. Maximum temperature range observed was 28.4 – 30.3 °C, range of minimum temperature observed was 18.2 – 20.3 °C, mean relative humidity observed in morning and afternoon were 92.3 % and 52.67 % respectively. The average wind speed range was 3.1 – 4.1 km/hr.

**Weather forecast for next five days of Bishnupur (16<sup>th</sup> to 20<sup>th</sup> May, 2015)**

There may be light to moderate rain upto Wednesday. Sky will be partly cloudy to mainly cloudy with maximum temp. of 27.0 – 30.0 °C & minimum temp. 15.0 – 19.0 °C. Relative humidity may reach upto 96 % (max RH) & 57 % (min RH). The average wind speed may be 4 km/ hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Pre-kharif Rice</b>	Milky dough stage		<ul style="list-style-type: none"> <li>- Drain out excess water, if accumulated due to rain in crop field. Maintain optimum water level.</li> <li>- Check for any insect-pest infestation in the crop.</li> </ul>
<b>Kharif Rice</b>	Nursery		<ul style="list-style-type: none"> <li>- Soak and incubate the well filled disease free seeds before sowing. Treat seeds with Nativio@2g/kg seed.</li> <li>- Maintain 2-3cm water level initially and drain out drain out completely before sowing. Increase water level to just submerge soil surface and expose the green aerial sprout after sowing.</li> </ul>
<b>Rabi Maize</b>	Cob maturity		<ul style="list-style-type: none"> <li>- Drain out excess rain water if accumulated due to rain in crop field.</li> <li>- Land ploughing for kharif maize may be started.</li> </ul>
<b>Soybean</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Avoid water logging.</li> <li>- Plot must be kept weed free to avoid insect/ pest.</li> <li>- 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.</li> <li>- Treat seeds with Nativio@2g/kg seeds or with Bavistin@2.5g/kg seed or with Thiram.</li> </ul>
<b>Groundnut</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Avoid water logging.</li> <li>- Plot must be kept weed free to avoid insect/ pest.</li> <li>- Seed rate is 100 – 110 kg/ha and the recommended varieties are ICGS-75 &amp; JL-24. Sow seeds at spacing 30cm x 15cm.</li> <li>- Treat seeds with Imidacloprid @ 2ml/ litre water or Bavistin @ 2.5g/ kg seed or with Thiram.</li> </ul>
<b>Blackgram</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Plot must be kept weed free to avoid insect/ pest.</li> <li>- Seed rate is 10-15 kg seeds/ ha. Sowing may be done by broadcasting or dibbling.</li> </ul>
<b>Rice bean</b>	Vegetative		Interculture operation may be done to reduce weed population to avoid insect/ pest.
<b>Storage (seed)</b>			<ul style="list-style-type: none"> <li>- Dry, clean and store the seeds in RC-seed bins after proper drying of seeds and charcoal. Check for moisture content or weight of seeds. After proper drying, store grains/ seeds in well ventilated godowns.</li> </ul>
<b>Horticulture Crops</b>			
<b>Lime/ Lemon</b>	Transplanting		<ul style="list-style-type: none"> <li>- In fertile upland area, prepare pits of size 2x2x2 feet to transplant the seeded or grafted seedlings from a reliable source.</li> <li>- Incorporate 10-12 kg of FYM and Trichoderma @ 20g/ pit with the top soil.</li> </ul>



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**“Gramin Krishi Mausam Seva”**

<b>Turmeric</b>	Sowing of turmeric		<ul style="list-style-type: none"> <li>- Planting of Turmeric may be done in upland area.</li> <li>- Before planting treat seed rhizome with Sixer @ 2g/ kg seed or Trichoderma harzianum @ 10g/ kg seed or Carbendazim @ 2g/ kg seed. Maintain spacing at 25cm X 40-45cm.</li> </ul>
<b>Tree Bean</b>	Nursery preparation		Collect disease free mature and good quality tree bean pods. Procure items below for nursery raising: Sand, soil polybag/ pro-tray and chemicals for seed treatment.

**Animal Sciences**

*\* Wholesome/ clear water must be provided after adding potassium permanganate/ sanitizer for drinking water.*

*Pond water must be given after proper treatment.*

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups		<ul style="list-style-type: none"> <li>- Bleaching powder may be spread near farm premises.</li> <li>- To avoid dehydration give vit C in drinking water along with other vitamins/ ORS during evening.</li> <li>- Avoid caking of litter materials.</li> </ul>
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
<b>Sheep/ Goat</b>	Above 3 months of age (as and when required)	Black Quarter/ Haemorrhagic Septicaemia and F.M.D.	Vaccinate against B.Q./ H.S. and FMD using proven vaccine of the diseases mentioned.
<b>Pig</b>	All age groups	Preventive measures	Wholesome/ clear water must be provided after adding potassium permanganate/ sanitizer for drinking water. Pond water must be given after proper treatment.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	Skin infections	<ul style="list-style-type: none"> <li>- Use Butox liq. @ 2ml/ litres of water and brush the animal using the solution at 15 days interval.</li> <li>* For Mithun, give Ivermectin @ 200 mg per kg body weight at the time of salt feeding.</li> </ul>
		Black Quarter/ Haemorrhagic Septicaemia	Vaccinate against B.Q./ H.S. using proven vaccine of the diseases mentioned.
		F.M.D.	- Vaccinate against F.M.D.

**Fishery:**

<b>Carp culture</b>	breeding	Pond and water	<ul style="list-style-type: none"> <li>- Bund breeding can be started.</li> <li>- Water quality in breeding pool should be clean, apply lime to maintain optimum pH with high dissolved oxygen for intensive induced breeding programme.</li> </ul>
	nurseries	Pond and water	<ul style="list-style-type: none"> <li>- Pond management should be started for stocking fish spawns. Maintain water depth at 1.0-1.5m. Apply lime @300kg/ha to maintain optimum pH.</li> <li>- Apply a mixture of raw cow dung @ 500 kg/ha +75 kg urea + 75kg SSP in nursery pond water 15 days before spawn stocking.</li> </ul>
		Feed	Well balanced feeds should be provided 2-3 times a day @ 5-10% body weight/day
		Fish	20-30 million spawn can be stocked in 1 ha pond.
	Grow -out	Pond and water	Regular manuring with a slurry of RCD @1500kg/ha at interval of 30 days should be done.
		Fish	8000-10,000 fingerlings can be stocked per ha. Sampling of fish for growth, diseases (if any) should be done by regular netting.
		Feed	Well balanced feed should be provided @ 3-5% body weight per day in 2-3 splits.
<b>Paddy cum fish culture</b>	Field		Trenches/channels in rice field with a depth of 1.0 - 1.5m should be made. 30-40% of the field can be converted into trench/pond for fish culture.

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



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**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN**

**15<sup>th</sup> May, 2015**

**Chandel**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 16<sup>th</sup> to 20<sup>th</sup> May, 2015 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (12<sup>th</sup> to 14<sup>th</sup> May, 2015)**

During last three days sky was mainly clear to partly cloudy. **No** rainfall was recorded during last three days. Maximum temperature range observed was 28.4 – 30.3 °C, range of minimum temperature observed was 18.2 – 20.3 °C, mean relative humidity observed in morning and afternoon were 92.3 % and 52.67 % respectively. The average wind speed range was 3.1 – 4.1 km/hr.

**Weather forecast for next five days of Chandel (16<sup>th</sup> to 20<sup>th</sup> May, 2015)**

There may be light to moderate rain upto Wednesday. Sky will be partly cloudy to mainly cloudy with maximum temp. of 27.0 – 30.0 °C & minimum temp. 17.0 – 18.0 °C. Relative humidity may reach upto 85 % (max RH) & 51 % (min RH). The average wind speed may be 4-5 km/ hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Pre-kharif Rice</b>	Milky dough stage		<ul style="list-style-type: none"> <li>- Drain out excess water, if accumulated due to rain in crop field. Maintain optimum water level.</li> <li>- Check for any insect-pest infestation in the crop.</li> </ul>
<b>Kharif Rice</b>	Nursery		<ul style="list-style-type: none"> <li>- Soak and incubate the well filled disease free seeds before sowing. Treat seeds with Nativio@2g/kg seed.</li> <li>- Maintain 2-3cm water level initially and drain out drain out completely before sowing. Increase water level to just submerge soil surface and expose the green aerial sprout after sowing.</li> </ul>
<b>Rabi Maize</b>	Cob maturity		<ul style="list-style-type: none"> <li>- Drain out excess rain water if accumulated due to rain in crop field.</li> <li>- Land ploughing for kharif maize may be started.</li> </ul>
<b>Soybean</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Avoid water logging.</li> <li>- Plot must be kept weed free to avoid insect/ pest.</li> <li>- 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.</li> <li>- Treat seeds with Nativio@2g/kg seeds or with Bavistin@2.5g/kg seed or with Thiram.</li> </ul>
<b>Groundnut</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Avoid water logging.</li> <li>- Plot must be kept weed free to avoid insect/ pest.</li> <li>- Seed rate is 100 – 110 kg/ha and the recommended varieties are ICGS-75 &amp; JL-24. Sow seeds at spacing 30cm x 15cm.</li> <li>- Treat seeds with Imidacloprid @ 2ml/ litre water or Bavistin @ 2.5g/ kg seed or with Thiram.</li> </ul>
<b>Blackgram</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Plot must be kept weed free to avoid insect/ pest.</li> <li>- Seed rate is 10-15 kg seeds/ ha. Sowing may be done by broadcasting or dibbling.</li> </ul>
<b>Rice bean</b>	Vegetative		Interculture operation may be done to reduce weed population to avoid insect/ pest.
<b>Storage (seed)</b>			<ul style="list-style-type: none"> <li>- Dry, clean and store the seeds in RC-seed bins after proper drying of seeds and charcoal. Check for moisture content or weight of seeds. After proper drying, store grains/ seeds in well ventilated godowns.</li> </ul>
<b>Horticulture Crops</b>			
<b>Lime/ Lemon</b>	Transplanting		<ul style="list-style-type: none"> <li>- In fertile upland area, prepare pits of size 2x2x2 feet to transplant the seeded or grafted seedlings from a reliable source.</li> <li>- Incorporate 10-12 kg of FYM and Trichoderma @ 20g/ pit with the top soil.</li> </ul>



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**“Gramin Krishi Mausam Seva”**

<b>Turmeric</b>	Sowing of turmeric		<ul style="list-style-type: none"> <li>- Planting of Turmeric may be done in upland area.</li> <li>- Before planting treat seed rhizome with Sixer @ 2g/ kg seed or Trichoderma harzianum @ 10g/ kg seed or Carbendazim @ 2g/ kg seed. Maintain spacing at 25cm X 40-45cm.</li> </ul>
<b>Tree Bean</b>	Nursery preparation		Collect disease free mature and good quality tree bean pods. Procure items below for nursery raising: Sand, soil polybag/ pro-tray and chemicals for seed treatment.

**Animal Sciences**

*\* Wholesome/ clear water must be provided after adding potassium permanganate/ sanitizer for drinking water.*

*Pond water must be given after proper treatment.*

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups		<ul style="list-style-type: none"> <li>- Bleaching powder may be spread near farm premises.</li> <li>- To avoid dehydration give vit C in drinking water along with other vitamins/ ORS during evening.</li> <li>- Avoid caking of litter materials.</li> </ul>
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
<b>Sheep/ Goat</b>	Above 3 months of age (as and when required)	Black Quarter/ Haemorrhagic Septicaemia and F.M.D.	Vaccinate against B.Q./ H.S. and FMD using proven vaccine of the diseases mentioned.
<b>Pig</b>	All age groups	Preventive measures	Wholesome/ clear water must be provided after adding potassium permanganate/ sanitizer for drinking water. Pond water must be given after proper treatment.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	Skin infections	<ul style="list-style-type: none"> <li>- Use Butox liq. @ 2ml/ litres of water and brush the animal using the solution at 15 days interval.</li> <li>* For Mithun, give Ivermectin @ 200 mg per kg body weight at the time of salt feeding.</li> </ul>
		Black Quarter/ Haemorrhagic Septicaemia	Vaccinate against B.Q./ H.S. using proven vaccine of the diseases mentioned.
		F.M.D.	- Vaccinate against F.M.D.

**Fishery:**

<b>Carp culture</b>	breeding	Pond and water	<ul style="list-style-type: none"> <li>- Bund breeding can be started.</li> <li>- Water quality in breeding pool should be clean, apply lime to maintain optimum pH with high dissolved oxygen for intensive induced breeding programme.</li> </ul>
	nurseries	Pond and water	<ul style="list-style-type: none"> <li>- Pond management should be started for stocking fish spawns. Maintain water depth at 1.0-1.5m. Apply lime @300kg/ha to maintain optimum pH.</li> <li>- Apply a mixture of raw cow dung @ 500 kg/ha +75 kg urea + 75kg SSP in nursery pond water 15 days before spawn stocking.</li> </ul>
		Feed	Well balanced feeds should be provided 2-3 times a day @ 5-10% body weight/day
		Fish	20-30 million spawn can be stocked in 1 ha pond.
	Grow -out	Pond and water	Regular manuring with a slurry of RCD @1500kg/ha at interval of 30 days should be done.
		Fish	8000-10,000 fingerlings can be stocked per ha. Sampling of fish for growth, diseases (if any) should be done by regular netting.
		Feed	Well balanced feed should be provided @ 3-5% body weight per day in 2-3 splits.
<b>Paddy cum fish culture</b>	Field		Trenches/channels in rice field with a depth of 1.0 - 1.5m should be made. 30-40% of the field can be converted into trench/pond for fish culture.

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**MANIPUR BULLETIN**

**15<sup>th</sup> May, 2015**

**Churachandpur**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 16<sup>th</sup> to 20<sup>th</sup> May, 2015 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (12<sup>th</sup> to 14<sup>th</sup> May, 2015)**

During last three days sky was mainly clear to partly cloudy. **No** rainfall was recorded during last three days. Maximum temperature range observed was 28.4 – 30.3 °C, range of minimum temperature observed was 18.2 – 20.3 °C, mean relative humidity observed in morning and afternoon were 92.3 % and 52.67 % respectively. The average wind speed range was 3.1 – 4.1 km/hr.

**Weather forecast for next five days of Churachandpur (16<sup>th</sup> to 20<sup>th</sup> May, 2015)**

There may be light to moderate rain upto Wednesday. Sky will be partly cloudy to mainly cloudy with maximum temp. of 26.0 – 29.0 °C & minimum temp. 16.0 – 19.0 °C. Relative humidity may reach upto 97 % (max RH) & 64 % (min RH). The average wind speed may be 3-4 km/ hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Pre-kharif Rice</b>	Milky dough stage		<ul style="list-style-type: none"> <li>- Drain out excess water, if accumulated due to rain in crop field. Maintain optimum water level.</li> <li>- Check for any insect-pest infestation in the crop.</li> </ul>
<b>Kharif Rice</b>	Nursery		<ul style="list-style-type: none"> <li>- Soak and incubate the well filled disease free seeds before sowing. Treat seeds with Nativio@2g/kg seed.</li> <li>- Maintain 2-3cm water level initially and drain out drain out completely before sowing. Increase water level to just submerge soil surface and expose the green aerial sprout after sowing.</li> </ul>
<b>Rabi Maize</b>	Cob maturity		<ul style="list-style-type: none"> <li>- Drain out excess rain water if accumulated due to rain in crop field.</li> <li>- Land ploughing for kharif maize may be started.</li> </ul>
<b>Soybean</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Avoid water logging.</li> <li>- Plot must be kept weed free to avoid insect/ pest.</li> <li>- 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.</li> <li>- Treat seeds with Nativio@2g/kg seeds or with Bavistin@2.5g/kg seed or with Thiram.</li> </ul>
<b>Groundnut</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Avoid water logging.</li> <li>- Plot must be kept weed free to avoid insect/ pest.</li> <li>- Seed rate is 100 – 110 kg/ha and the recommended varieties are ICGS-75 &amp; JL-24. Sow seeds at spacing 30cm x 15cm.</li> <li>- Treat seeds with Imidacloprid @ 2ml/ litre water or Bavistin @ 2.5g/ kg seed or with Thiram.</li> </ul>
<b>Blackgram</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Plot must be kept weed free to avoid insect/ pest.</li> <li>- Seed rate is 10-15 kg seeds/ ha. Sowing may be done by broadcasting or dibbling.</li> </ul>
<b>Rice bean</b>	Vegetative		Interculture operation may be done to reduce weed population to avoid insect/ pest.
<b>Storage (seed)</b>			<ul style="list-style-type: none"> <li>- Dry, clean and store the seeds in RC-seed bins after proper drying of seeds and charcoal. Check for moisture content or weight of seeds. After proper drying, store grains/ seeds in well ventilated godowns.</li> </ul>
<b>Horticulture Crops</b>			
<b>Lime/ Lemon</b>	Transplanting		<ul style="list-style-type: none"> <li>- In fertile upland area, prepare pits of size 2x2x2 feet to transplant the seeded or grafted seedlings from a reliable source.</li> <li>- Incorporate 10-12 kg of FYM and Trichoderma @ 20g/ pit with the top soil.</li> </ul>





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**“Gramin Krishi Mausam Seva”**

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<b>Tree Bean</b>	Nursery preparation		Collect disease free mature and good quality tree bean pods. Procure items below for nursery raising: Sand, soil polybag/ pro-tray and chemicals for seed treatment.

**Animal Sciences**

*\* Wholesome/ clear water must be provided after adding potassium permanganate/ sanitizer for drinking water.*

*Pond water must be given after proper treatment.*

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups		<ul style="list-style-type: none"> <li>- Bleaching powder may be spread near farm premises.</li> <li>- To avoid dehydration give vit C in drinking water along with other vitamins/ ORS during evening.</li> <li>- Avoid caking of litter materials.</li> </ul>
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
<b>Sheep/ Goat</b>	Above 3 months of age (as and when required)	Black Quarter/ Haemorrhagic Septicaemia and F.M.D.	Vaccinate against B.Q./ H.S. and FMD using proven vaccine of the diseases mentioned.
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		Black Quarter/ Haemorrhagic Septicaemia	Vaccinate against B.Q./ H.S. using proven vaccine of the diseases mentioned.
		F.M.D.	- Vaccinate against F.M.D.

**Fishery:**

<b>Carp culture</b>	breeding	Pond and water	<ul style="list-style-type: none"> <li>- Bund breeding can be started.</li> <li>- Water quality in breeding pool should be clean, apply lime to maintain optimum pH with high dissolved oxygen for intensive induced breeding programme.</li> </ul>
	nurseries	Pond and water	<ul style="list-style-type: none"> <li>- Pond management should be started for stocking fish spawns. Maintain water depth at 1.0-1.5m. Apply lime @300kg/ha to maintain optimum pH.</li> <li>- Apply a mixture of raw cow dung @ 500 kg/ha +75 kg urea + 75kg SSP in nursery pond water 15 days before spawn stocking.</li> </ul>
		Feed	Well balanced feeds should be provided 2-3 times a day @ 5-10% body weight/day
		Fish	20-30 million spawn can be stocked in 1 ha pond.
	Grow -out	Pond and water	Regular manuring with a slurry of RCD @1500kg/ha at interval of 30 days should be done.
		Fish	8000-10,000 fingerlings can be stocked per ha. Sampling of fish for growth, diseases (if any) should be done by regular netting.
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(I. Meghachandra Singh)  
Scientist i/c, GKMS



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**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN**

**15<sup>th</sup> May, 2015**

**Imphal-East**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 16<sup>th</sup> to 20<sup>th</sup> May, 2015 as below:

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**Weather forecast for next five days of Imphal- East (16<sup>th</sup> to 20<sup>th</sup> May, 2015)**

There may be light to moderate rain upto Wednesday. Sky will be partly cloudy to mainly cloudy with maximum temp. of 27.0 – 29.0 °C & minimum temp. 16.0 – 19.0 °C. Relative humidity may reach upto 97 % (max RH) & 49 % (min RH). The average wind speed may be 2-4 km/ hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Pre-kharif Rice</b>	Milky dough stage		<ul style="list-style-type: none"> <li>- Drain out excess water, if accumulated due to rain in crop field. Maintain optimum water level.</li> <li>- Check for any insect-pest infestation in the crop.</li> </ul>
<b>Kharif Rice</b>	Nursery		<ul style="list-style-type: none"> <li>- Soak and incubate the well filled disease free seeds before sowing. Treat seeds with Nativio@2g/kg seed.</li> <li>- Maintain 2-3cm water level initially and drain out drain out completely before sowing. Increase water level to just submerge soil surface and expose the green aerial sprout after sowing.</li> </ul>
<b>Rabi Maize</b>	Cob maturity		<ul style="list-style-type: none"> <li>- Drain out excess rain water if accumulated due to rain in crop field.</li> <li>- Land ploughing for kharif maize may be started.</li> </ul>
<b>Soybean</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Avoid water logging.</li> <li>- Plot must be kept weed free to avoid insect/ pest.</li> <li>- 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.</li> <li>- Treat seeds with Nativio@2g/kg seeds or with Bavistin@2.5g/kg seed or with Thiram.</li> </ul>
<b>Groundnut</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Avoid water logging.</li> <li>- Plot must be kept weed free to avoid insect/ pest.</li> <li>- Seed rate is 100 – 110 kg/ha and the recommended varieties are ICGS-75 &amp; JL-24. Sow seeds at spacing 30cm x 15cm.</li> <li>- Treat seeds with Imidacloprid @ 2ml/ litre water or Bavistin @ 2.5g/ kg seed or with Thiram.</li> </ul>
<b>Blackgram</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Plot must be kept weed free to avoid insect/ pest.</li> <li>- Seed rate is 10-15 kg seeds/ ha. Sowing may be done by broadcasting or dibbling.</li> </ul>
<b>Rice bean</b>	Vegetative		Interculture operation may be done to reduce weed population to avoid insect/ pest.
<b>Storage (seed)</b>			<ul style="list-style-type: none"> <li>- Dry, clean and store the seeds in RC-seed bins after proper drying of seeds and charcoal. Check for moisture content or weight of seeds. After proper drying, store grains/ seeds in well ventilated godowns.</li> </ul>
<b>Horticulture Crops</b>			
<b>Lime/ Lemon</b>	Transplanting		<ul style="list-style-type: none"> <li>- In fertile upland area, prepare pits of size 2x2x2 feet to transplant the seeded or grafted seedlings from a reliable source.</li> <li>- Incorporate 10-12 kg of FYM and Trichoderma @ 20g/ pit with the top soil.</li> </ul>



**ICAR Research Complex for N.E.H. Region  
Manipur Centre, Lamphelpat, Imphal - 795 004**



**“Gramin Krishi Mausam Seva”**

<b>Turmeric</b>	Sowing of turmeric		<ul style="list-style-type: none"> <li>- Planting of Turmeric may be done in upland area.</li> <li>- Before planting treat seed rhizome with Sixer @ 2g/ kg seed or Trichoderma harzianum @ 10g/ kg seed or Carbendazim @ 2g/ kg seed. Maintain spacing at 25cm X 40-45cm.</li> </ul>
<b>Tree Bean</b>	Nursery preparation		Collect disease free mature and good quality tree bean pods. Procure items below for nursery raising: Sand, soil polybag/ pro-tray and chemicals for seed treatment.

**Animal Sciences**

*\* Wholesome/ clear water must be provided after adding potassium permanganate/ sanitizer for drinking water.*

*Pond water must be given after proper treatment.*

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups		<ul style="list-style-type: none"> <li>- Bleaching powder may be spread near farm premises.</li> <li>- To avoid dehydration give vit C in drinking water along with other vitamins/ ORS during evening.</li> <li>- Avoid caking of litter materials.</li> </ul>
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
<b>Sheep/ Goat</b>	Above 3 months of age (as and when required)	Black Quarter/ Haemorrhagic Septicaemia and F.M.D.	Vaccinate against B.Q./ H.S. and FMD using proven vaccine of the diseases mentioned.
<b>Pig</b>	All age groups	Preventive measures	Wholesome/ clear water must be provided after adding potassium permanganate/ sanitizer for drinking water. Pond water must be given after proper treatment.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	Skin infections	<ul style="list-style-type: none"> <li>- Use Butox liq. @ 2ml/ litres of water and brush the animal using the solution at 15 days interval.</li> <li>* For Mithun, give Ivermectin @ 200 mg per kg body weight at the time of salt feeding.</li> </ul>
		Black Quarter/ Haemorrhagic Septicaemia	Vaccinate against B.Q./ H.S. using proven vaccine of the diseases mentioned.
		F.M.D.	- Vaccinate against F.M.D.

**Fishery:**

<b>Carp culture</b>	breeding	Pond and water	<ul style="list-style-type: none"> <li>- Bund breeding can be started.</li> <li>- Water quality in breeding pool should be clean, apply lime to maintain optimum pH with high dissolved oxygen for intensive induced breeding programme.</li> </ul>
	nurseries	Pond and water	<ul style="list-style-type: none"> <li>- Pond management should be started for stocking fish spawns. Maintain water depth at 1.0-1.5m. Apply lime @300kg/ha to maintain optimum pH.</li> <li>- Apply a mixture of raw cow dung @ 500 kg/ha +75 kg urea + 75kg SSP in nursery pond water 15 days before spawn stocking.</li> </ul>
		Feed	Well balanced feeds should be provided 2-3 times a day @ 5-10% body weight/day
		Fish	20-30 million spawn can be stocked in 1 ha pond.
	Grow -out	Pond and water	Regular manuring with a slurry of RCD @1500kg/ha at interval of 30 days should be done.
		Fish	8000-10,000 fingerlings can be stocked per ha. Sampling of fish for growth, diseases (if any) should be done by regular netting.
		Feed	Well balanced feed should be provided @ 3-5% body weight per day in 2-3 splits.
<b>Paddy cum fish culture</b>	Field		Trenches/channels in rice field with a depth of 1.0 - 1.5m should be made. 30-40% of the field can be converted into trench/pond for fish culture.

(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**

**15<sup>th</sup> May, 2015**

**Imphal-West**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 16<sup>th</sup> to 20<sup>th</sup> May, 2015 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (12<sup>th</sup> to 14<sup>th</sup> May, 2015)**

During last three days sky was mainly clear to partly cloudy. **No** rainfall was recorded during last three days. Maximum temperature range observed was 28.4 – 30.3 °C, range of minimum temperature observed was 18.2 – 20.3 °C, mean relative humidity observed in morning and afternoon were 92.3 % and 52.67 % respectively. The average wind speed range was 3.1 – 4.1 km/hr.

**Weather forecast for next five days of Imphal- West (16<sup>th</sup> to 20<sup>th</sup> May, 2015)**

There may be light to moderate rain upto Wednesday. Sky will be partly cloudy to mainly cloudy with maximum temp. of 26.0 – 29.0 °C & minimum temp. 15.0 – 19.0 °C. Relative humidity may reach upto 98 % (max RH) & 51 % (min RH). The average wind speed may be 2-3 km/ hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Pre-kharif Rice</b>	Milky dough stage		<ul style="list-style-type: none"> <li>- Drain out excess water, if accumulated due to rain in crop field. Maintain optimum water level.</li> <li>- Check for any insect-pest infestation in the crop.</li> </ul>
<b>Kharif Rice</b>	Nursery		<ul style="list-style-type: none"> <li>- Soak and incubate the well filled disease free seeds before sowing. Treat seeds with Nativio@2g/kg seed.</li> <li>- Maintain 2-3cm water level initially and drain out drain out completely before sowing. Increase water level to just submerge soil surface and expose the green aerial sprout after sowing.</li> </ul>
<b>Rabi Maize</b>	Cob maturity		<ul style="list-style-type: none"> <li>- Drain out excess rain water if accumulated due to rain in crop field.</li> <li>- Land ploughing for kharif maize may be started.</li> </ul>
<b>Soybean</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Avoid water logging.</li> <li>- Plot must be kept weed free to avoid insect/ pest.</li> <li>- 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.</li> <li>- Treat seeds with Nativio@2g/kg seeds or with Bavistin@2.5g/kg seed or with Thiram.</li> </ul>
<b>Groundnut</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Avoid water logging.</li> <li>- Plot must be kept weed free to avoid insect/ pest.</li> <li>- Seed rate is 100 – 110 kg/ha and the recommended varieties are ICGS-75 &amp; JL-24. Sow seeds at spacing 30cm x 15cm.</li> <li>- Treat seeds with Imidacloprid @ 2ml/ litre water or Bavistin @ 2.5g/ kg seed or with Thiram.</li> </ul>
<b>Blackgram</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Plot must be kept weed free to avoid insect/ pest.</li> <li>- Seed rate is 10-15 kg seeds/ ha. Sowing may be done by broadcasting or dibbling.</li> </ul>
<b>Rice bean</b>	Vegetative		Interculture operation may be done to reduce weed population to avoid insect/ pest.
<b>Storage (seed)</b>			<ul style="list-style-type: none"> <li>- Dry, clean and store the seeds in RC-seed bins after proper drying of seeds and charcoal. Check for moisture content or weight of seeds. After proper drying, store grains/ seeds in well ventilated godowns.</li> </ul>
<b>Horticulture Crops</b>			
<b>Lime/ Lemon</b>	Transplanting		<ul style="list-style-type: none"> <li>- In fertile upland area, prepare pits of size 2x2x2 feet to transplant the seeded or grafted seedlings from a reliable source.</li> <li>- Incorporate 10-12 kg of FYM and Trichoderma @ 20g/ pit with the top soil.</li> </ul>



**ICAR Research Complex for N.E.H. Region  
Manipur Centre, Lamphelpat, Imphal - 795 004**



**“Gramin Krishi Mausam Seva”**

<b>Turmeric</b>	Sowing of turmeric		<ul style="list-style-type: none"> <li>- Planting of Turmeric may be done in upland area.</li> <li>- Before planting treat seed rhizome with Sixer @ 2g/ kg seed or Trichoderma harzianum @ 10g/ kg seed or Carbendazim @ 2g/ kg seed. Maintain spacing at 25cm X 40-45cm.</li> </ul>
<b>Tree Bean</b>	Nursery preparation		Collect disease free mature and good quality tree bean pods. Procure items below for nursery raising: Sand, soil polybag/ pro-tray and chemicals for seed treatment.

**Animal Sciences**

*\* Wholesome/ clear water must be provided after adding potassium permanganate/ sanitizer for drinking water.*

*Pond water must be given after proper treatment.*

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups		<ul style="list-style-type: none"> <li>- Bleaching powder may be spread near farm premises.</li> <li>- To avoid dehydration give vit C in drinking water along with other vitamins/ ORS during evening.</li> <li>- Avoid caking of litter materials.</li> </ul>
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
<b>Sheep/ Goat</b>	Above 3 months of age (as and when required)	Black Quarter/ Haemorrhagic Septicaemia and F.M.D.	Vaccinate against B.Q./ H.S. and FMD using proven vaccine of the diseases mentioned.
<b>Pig</b>	All age groups	Preventive measures	Wholesome/ clear water must be provided after adding potassium permanganate/ sanitizer for drinking water. Pond water must be given after proper treatment.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	Skin infections	<ul style="list-style-type: none"> <li>- Use Butox liq. @ 2ml/ litres of water and brush the animal using the solution at 15 days interval.</li> <li>* For Mithun, give Ivermectin @ 200 mg per kg body weight at the time of salt feeding.</li> </ul>
		Black Quarter/ Haemorrhagic Septicaemia	Vaccinate against B.Q./ H.S. using proven vaccine of the diseases mentioned.
		F.M.D.	- Vaccinate against F.M.D.

**Fishery:**

<b>Carp culture</b>	breeding	Pond and water	<ul style="list-style-type: none"> <li>- Bund breeding can be started.</li> <li>- Water quality in breeding pool should be clean, apply lime to maintain optimum pH with high dissolved oxygen for intensive induced breeding programme.</li> </ul>
	nurseries	Pond and water	<ul style="list-style-type: none"> <li>- Pond management should be started for stocking fish spawns. Maintain water depth at 1.0-1.5m. Apply lime @300kg/ha to maintain optimum pH.</li> <li>- Apply a mixture of raw cow dung @ 500 kg/ha +75 kg urea + 75kg SSP in nursery pond water 15 days before spawn stocking.</li> </ul>
		Feed	Well balanced feeds should be provided 2-3 times a day @ 5-10% body weight/day
		Fish	20-30 million spawn can be stocked in 1 ha pond.
	Grow -out	Pond and water	Regular manuring with a slurry of RCD @1500kg/ha at interval of 30 days should be done.
		Fish	8000-10,000 fingerlings can be stocked per ha. Sampling of fish for growth, diseases (if any) should be done by regular netting.
		Feed	Well balanced feed should be provided @ 3-5% body weight per day in 2-3 splits.
<b>Paddy cum fish culture</b>	Field		Trenches/channels in rice field with a depth of 1.0 - 1.5m should be made. 30-40% of the field can be converted into trench/pond for fish culture.

(I. Meghachandra Singh)  
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**ICAR Research Complex for N.E.H. Region  
Manipur Centre, Lamphelpat, Imphal - 795 004**



**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN**

**15<sup>th</sup> May, 2015**

**Senapati**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 16<sup>th</sup> to 20<sup>th</sup> May, 2015 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (12<sup>th</sup> to 14<sup>th</sup> May, 2015)**

During last three days sky was mainly clear to partly cloudy. **No** rainfall was recorded during last three days. Maximum temperature range observed was 28.4 – 30.3 °C, range of minimum temperature observed was 18.2 – 20.3 °C, mean relative humidity observed in morning and afternoon were 92.3 % and 52.67 % respectively. The average wind speed range was 3.1 – 4.1 km/hr.

**Weather forecast for next five days of Senapati (16<sup>th</sup> to 20<sup>th</sup> May, 2015)**

There may be light to moderate rain upto Wednesday. Sky will be partly cloudy to mainly cloudy with maximum temp. of 24.0 – 27.0 °C & minimum temp. 13.0 – 16.0 °C. Relative humidity may reach upto 94 % (max RH) & 45 % (min RH). The average wind speed may be 2-4 km/ hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Pre-kharif Rice</b>	Milky dough stage		<ul style="list-style-type: none"> <li>- Drain out excess water, if accumulated due to rain in crop field. Maintain optimum water level.</li> <li>- Check for any insect-pest infestation in the crop.</li> </ul>
<b>Kharif Rice</b>	Nursery		<ul style="list-style-type: none"> <li>- Soak and incubate the well filled disease free seeds before sowing. Treat seeds with Nativio@2g/kg seed.</li> <li>- Maintain 2-3cm water level initially and drain out drain out completely before sowing. Increase water level to just submerge soil surface and expose the green aerial sprout after sowing.</li> </ul>
<b>Rabi Maize</b>	Cob maturity		<ul style="list-style-type: none"> <li>- Drain out excess rain water if accumulated due to rain in crop field.</li> <li>- Land ploughing for kharif maize may be started.</li> </ul>
<b>Soybean</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Avoid water logging.</li> <li>- Plot must be kept weed free to avoid insect/ pest.</li> <li>- 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.</li> <li>- Treat seeds with Nativio@2g/kg seeds or with Bavistin@2.5g/kg seed or with Thiram.</li> </ul>
<b>Groundnut</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Avoid water logging.</li> <li>- Plot must be kept weed free to avoid insect/ pest.</li> <li>- Seed rate is 100 – 110 kg/ha and the recommended varieties are ICGS-75 &amp; JL-24. Sow seeds at spacing 30cm x 15cm.</li> <li>- Treat seeds with Imidacloprid @ 2ml/ litre water or Bavistin @ 2.5g/ kg seed or with Thiram.</li> </ul>
<b>Blackgram</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Plot must be kept weed free to avoid insect/ pest.</li> <li>- Seed rate is 10-15 kg seeds/ ha. Sowing may be done by broadcasting or dibbling.</li> </ul>
<b>Rice bean</b>	Vegetative		Interculture operation may be done to reduce weed population to avoid insect/ pest.
<b>Storage (seed)</b>			<ul style="list-style-type: none"> <li>- Dry, clean and store the seeds in RC-seed bins after proper drying of seeds and charcoal. Check for moisture content or weight of seeds. After proper drying, store grains/ seeds in well ventilated godowns.</li> </ul>
<b>Horticulture Crops</b>			
<b>Lime/ Lemon</b>	Transplanting		<ul style="list-style-type: none"> <li>- In fertile upland area, prepare pits of size 2x2x2 feet to transplant the seeded or grafted seedlings from a reliable source.</li> <li>- Incorporate 10-12 kg of FYM and Trichoderma @ 20g/ pit with the top soil.</li> </ul>



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

<b>Turmeric</b>	Sowing of turmeric		<ul style="list-style-type: none"> <li>- Planting of Turmeric may be done in upland area.</li> <li>- Before planting treat seed rhizome with Sixer @ 2g/ kg seed or Trichoderma harzianum @ 10g/ kg seed or Carbendazim @ 2g/ kg seed. Maintain spacing at 25cm X 40-45cm.</li> </ul>
<b>Tree Bean</b>	Nursery preparation		Collect disease free mature and good quality tree bean pods. Procure items below for nursery raising: Sand, soil polybag/ pro-tray and chemicals for seed treatment.

**Animal Sciences**

*\* Wholesome/ clear water must be provided after adding potassium permanganate/ sanitizer for drinking water.*

*Pond water must be given after proper treatment.*

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups		<ul style="list-style-type: none"> <li>- Bleaching powder may be spread near farm premises.</li> <li>- To avoid dehydration give vit C in drinking water along with other vitamins/ ORS during evening.</li> <li>- Avoid caking of litter materials.</li> </ul>
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
<b>Sheep/ Goat</b>	Above 3 months of age (as and when required)	Black Quarter/ Haemorrhagic Septicaemia and F.M.D.	Vaccinate against B.Q./ H.S. and FMD using proven vaccine of the diseases mentioned.
<b>Pig</b>	All age groups	Preventive measures	Wholesome/ clear water must be provided after adding potassium permanganate/ sanitizer for drinking water. Pond water must be given after proper treatment.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	Skin infections	<ul style="list-style-type: none"> <li>- Use Butox liq. @ 2ml/ litres of water and brush the animal using the solution at 15 days interval.</li> <li>* For Mithun, give Ivermectin @ 200 mg per kg body weight at the time of salt feeding.</li> </ul>
		Black Quarter/ Haemorrhagic Septicaemia	Vaccinate against B.Q./ H.S. using proven vaccine of the diseases mentioned.
		F.M.D.	- Vaccinate against F.M.D.

**Fishery:**

<b>Carp culture</b>	breeding	Pond and water	<ul style="list-style-type: none"> <li>- Bund breeding can be started.</li> <li>- Water quality in breeding pool should be clean, apply lime to maintain optimum pH with high dissolved oxygen for intensive induced breeding programme.</li> </ul>
	nurseries	Pond and water	<ul style="list-style-type: none"> <li>- Pond management should be started for stocking fish spawns. Maintain water depth at 1.0-1.5m. Apply lime @300kg/ha to maintain optimum pH.</li> <li>- Apply a mixture of raw cow dung @ 500 kg/ha +75 kg urea + 75kg SSP in nursery pond water 15 days before spawn stocking.</li> </ul>
		Feed	Well balanced feeds should be provided 2-3 times a day @ 5-10% body weight/day
		Fish	20-30 million spawn can be stocked in 1 ha pond.
	Grow -out	Pond and water	Regular manuring with a slurry of RCD @1500kg/ha at interval of 30 days should be done.
		Fish	8000-10,000 fingerlings can be stocked per ha. Sampling of fish for growth, diseases (if any) should be done by regular netting.
		Feed	Well balanced feed should be provided @ 3-5% body weight per day in 2-3 splits.
<b>Paddy cum fish culture</b>	Field		Trenches/channels in rice field with a depth of 1.0 - 1.5m should be made. 30-40% of the field can be converted into trench/pond for fish culture.

(I. Meghachandra Singh)  
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**ICAR Research Complex for N.E.H. Region  
Manipur Centre, Lamphelpat, Imphal - 795 004**



**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN**

**15<sup>th</sup> May, 2015**

**Tamenglong**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 16<sup>th</sup> to 20<sup>th</sup> May, 2015 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (12<sup>th</sup> to 14<sup>th</sup> May, 2015)**

During last three days sky was mainly clear to partly cloudy. **No** rainfall was recorded during last three days. Maximum temperature range observed was 28.4 – 30.3 °C, range of minimum temperature observed was 18.2 – 20.3 °C, mean relative humidity observed in morning and afternoon were 92.3 % and 52.67 % respectively. The average wind speed range was 3.1 – 4.1 km/hr.

**Weather forecast for next five days of Tamenglong (16<sup>th</sup> to 20<sup>th</sup> May, 2015)**

There may be light to moderate rain upto Wednesday. Sky will be partly cloudy to mainly cloudy with maximum temp. of 28.0 – 31.0 °C & minimum temp. 15.0 – 19.0 °C. Relative humidity may reach upto 97 % (max RH) & 55 % (min RH). The average wind speed may be 2-3 km/ hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Pre-kharif Rice</b>	Milky dough stage		<ul style="list-style-type: none"> <li>- Drain out excess water, if accumulated due to rain in crop field. Maintain optimum water level.</li> <li>- Check for any insect-pest infestation in the crop.</li> </ul>
<b>Kharif Rice</b>	Nursery		<ul style="list-style-type: none"> <li>- Soak and incubate the well filled disease free seeds before sowing. Treat seeds with Nativio@2g/kg seed.</li> <li>- Maintain 2-3cm water level initially and drain out drain out completely before sowing. Increase water level to just submerge soil surface and expose the green aerial sprout after sowing.</li> </ul>
<b>Rabi Maize</b>	Cob maturity		<ul style="list-style-type: none"> <li>- Drain out excess rain water if accumulated due to rain in crop field.</li> <li>- Land ploughing for kharif maize may be started.</li> </ul>
<b>Soybean</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Avoid water logging.</li> <li>- Plot must be kept weed free to avoid insect/ pest.</li> <li>- 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.</li> <li>- Treat seeds with Nativio@2g/kg seeds or with Bavistin@2.5g/kg seed or with Thiram.</li> </ul>
<b>Groundnut</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Avoid water logging.</li> <li>- Plot must be kept weed free to avoid insect/ pest.</li> <li>- Seed rate is 100 – 110 kg/ha and the recommended varieties are ICGS-75 &amp; JL-24. Sow seeds at spacing 30cm x 15cm.</li> <li>- Treat seeds with Imidacloprid @ 2ml/ litre water or Bavistin @ 2.5g/ kg seed or with Thiram.</li> </ul>
<b>Blackgram</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Plot must be kept weed free to avoid insect/ pest.</li> <li>- Seed rate is 10-15 kg seeds/ ha. Sowing may be done by broadcasting or dibbling.</li> </ul>
<b>Rice bean</b>	Vegetative		Interculture operation may be done to reduce weed population to avoid insect/ pest.
<b>Storage (seed)</b>			<ul style="list-style-type: none"> <li>- Dry, clean and store the seeds in RC-seed bins after proper drying of seeds and charcoal. Check for moisture content or weight of seeds. After proper drying, store grains/ seeds in well ventilated godowns.</li> </ul>
<b>Horticulture Crops</b>			
<b>Lime/ Lemon</b>	Transplanting		<ul style="list-style-type: none"> <li>- In fertile upland area, prepare pits of size 2x2x2 feet to transplant the seeded or grafted seedlings from a reliable source.</li> <li>- Incorporate 10-12 kg of FYM and Trichoderma @ 20g/ pit with the top soil.</li> </ul>





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Manipur Centre, Lamphelpat, Imphal - 795 004**



**“Gramin Krishi Mausam Seva”**

<b>Turmeric</b>	Sowing of turmeric		<ul style="list-style-type: none"> <li>- Planting of Turmeric may be done in upland area.</li> <li>- Before planting treat seed rhizome with Sixer @ 2g/ kg seed or Trichoderma harzianum @ 10g/ kg seed or Carbendazim @ 2g/ kg seed. Maintain spacing at 25cm X 40-45cm.</li> </ul>
<b>Tree Bean</b>	Nursery preparation		Collect disease free mature and good quality tree bean pods. Procure items below for nursery raising: Sand, soil polybag/ pro-tray and chemicals for seed treatment.

**Animal Sciences**

*\* Wholesome/ clear water must be provided after adding potassium permanganate/ sanitizer for drinking water.*

*Pond water must be given after proper treatment.*

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups		<ul style="list-style-type: none"> <li>- Bleaching powder may be spread near farm premises.</li> <li>- To avoid dehydration give vit C in drinking water along with other vitamins/ ORS during evening.</li> <li>- Avoid caking of litter materials.</li> </ul>
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
<b>Sheep/ Goat</b>	Above 3 months of age (as and when required)	Black Quarter/ Haemorrhagic Septicaemia and F.M.D.	Vaccinate against B.Q./ H.S. and FMD using proven vaccine of the diseases mentioned.
<b>Pig</b>	All age groups	Preventive measures	Wholesome/ clear water must be provided after adding potassium permanganate/ sanitizer for drinking water. Pond water must be given after proper treatment.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	Skin infections	<ul style="list-style-type: none"> <li>- Use Butox liq. @ 2ml/ litres of water and brush the animal using the solution at 15 days interval.</li> <li>* For Mithun, give Ivermectin @ 200 mg per kg body weight at the time of salt feeding.</li> </ul>
		Black Quarter/ Haemorrhagic Septicaemia	Vaccinate against B.Q./ H.S. using proven vaccine of the diseases mentioned.
		F.M.D.	- Vaccinate against F.M.D.

**Fishery:**

<b>Carp culture</b>	breeding	Pond and water	<ul style="list-style-type: none"> <li>- Bund breeding can be started.</li> <li>- Water quality in breeding pool should be clean, apply lime to maintain optimum pH with high dissolved oxygen for intensive induced breeding programme.</li> </ul>
	nurseries	Pond and water	<ul style="list-style-type: none"> <li>- Pond management should be started for stocking fish spawns. Maintain water depth at 1.0-1.5m. Apply lime @300kg/ha to maintain optimum pH.</li> <li>- Apply a mixture of raw cow dung @ 500 kg/ha +75 kg urea + 75kg SSP in nursery pond water 15 days before spawn stocking.</li> </ul>
		Feed	Well balanced feeds should be provided 2-3 times a day @ 5-10% body weight/day
		Fish	20-30 million spawn can be stocked in 1 ha pond.
	Grow -out	Pond and water	Regular manuring with a slurry of RCD @1500kg/ha at interval of 30 days should be done.
		Fish	8000-10,000 fingerlings can be stocked per ha. Sampling of fish for growth, diseases (if any) should be done by regular netting.
		Feed	Well balanced feed should be provided @ 3-5% body weight per day in 2-3 splits.
<b>Paddy cum fish culture</b>	Field		Trenches/channels in rice field with a depth of 1.0 - 1.5m should be made. 30-40% of the field can be converted into trench/pond for fish culture.

(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**

**15<sup>th</sup> May, 2015**

**Thoubal**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 16<sup>th</sup> to 20<sup>th</sup> May, 2015 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (12<sup>th</sup> to 14<sup>th</sup> May, 2015)**

During last three days sky was mainly clear to partly cloudy. **No** rainfall was recorded during last three days. Maximum temperature range observed was 28.4 – 30.3 °C, range of minimum temperature observed was 18.2 – 20.3 °C, mean relative humidity observed in morning and afternoon were 92.3 % and 52.67 % respectively. The average wind speed range was 3.1 – 4.1 km/hr.

**Weather forecast for next five days of Thoubal (16<sup>th</sup> to 20<sup>th</sup> May, 2015)**

There may be light to moderate rain upto Wednesday. Sky will be partly cloudy to mainly cloudy with maximum temp. of 26.0 – 30.0 °C & minimum temp. 15.0 – 18.0 °C. Relative humidity may reach upto 95 % (max RH) & 58 % (min RH). The average wind speed may be 4-6 km/ hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Pre-kharif Rice</b>	Milky dough stage		<ul style="list-style-type: none"> <li>- Drain out excess water, if accumulated due to rain in crop field. Maintain optimum water level.</li> <li>- Check for any insect-pest infestation in the crop.</li> </ul>
<b>Kharif Rice</b>	Nursery		<ul style="list-style-type: none"> <li>- Soak and incubate the well filled disease free seeds before sowing. Treat seeds with Nativio@2g/kg seed.</li> <li>- Maintain 2-3cm water level initially and drain out drain out completely before sowing. Increase water level to just submerge soil surface and expose the green aerial sprout after sowing.</li> </ul>
<b>Rabi Maize</b>	Cob maturity		<ul style="list-style-type: none"> <li>- Drain out excess rain water if accumulated due to rain in crop field.</li> <li>- Land ploughing for kharif maize may be started.</li> </ul>
<b>Soybean</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Avoid water logging.</li> <li>- Plot must be kept weed free to avoid insect/ pest.</li> <li>- 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.</li> <li>- Treat seeds with Nativio@2g/kg seeds or with Bavistin@2.5g/kg seed or with Thiram.</li> </ul>
<b>Groundnut</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Avoid water logging.</li> <li>- Plot must be kept weed free to avoid insect/ pest.</li> <li>- Seed rate is 100 – 110 kg/ha and the recommended varieties are ICGS-75 &amp; JL-24. Sow seeds at spacing 30cm x 15cm.</li> <li>- Treat seeds with Imidacloprid @ 2ml/ litre water or Bavistin @ 2.5g/ kg seed or with Thiram.</li> </ul>
<b>Blackgram</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Plot must be kept weed free to avoid insect/ pest.</li> <li>- Seed rate is 10-15 kg seeds/ ha. Sowing may be done by broadcasting or dibbling.</li> </ul>
<b>Rice bean</b>	Vegetative		Interculture operation may be done to reduce weed population to avoid insect/ pest.
<b>Storage (seed)</b>			<ul style="list-style-type: none"> <li>- Dry, clean and store the seeds in RC-seed bins after proper drying of seeds and charcoal. Check for moisture content or weight of seeds. After proper drying, store grains/ seeds in well ventilated godowns.</li> </ul>
<b>Horticulture Crops</b>			
<b>Lime/ Lemon</b>	Transplanting		<ul style="list-style-type: none"> <li>- In fertile upland area, prepare pits of size 2x2x2 feet to transplant the seeded or grafted seedlings from a reliable source.</li> <li>- Incorporate 10-12 kg of FYM and Trichoderma @ 20g/ pit with the top soil.</li> </ul>



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**“Gramin Krishi Mausam Seva”**

<b>Turmeric</b>	Sowing of turmeric		<ul style="list-style-type: none"> <li>- Planting of Turmeric may be done in upland area.</li> <li>- Before planting treat seed rhizome with Sixer @ 2g/ kg seed or Trichoderma harzianum @ 10g/ kg seed or Carbendazim @ 2g/ kg seed. Maintain spacing at 25cm X 40-45cm.</li> </ul>
<b>Tree Bean</b>	Nursery preparation		Collect disease free mature and good quality tree bean pods. Procure items below for nursery raising: Sand, soil polybag/ pro-tray and chemicals for seed treatment.

**Animal Sciences**

*\* Wholesome/ clear water must be provided after adding potassium permanganate/ sanitizer for drinking water.*

*Pond water must be given after proper treatment.*

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups		<ul style="list-style-type: none"> <li>- Bleaching powder may be spread near farm premises.</li> <li>- To avoid dehydration give vit C in drinking water along with other vitamins/ ORS during evening.</li> <li>- Avoid caking of litter materials.</li> </ul>
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
<b>Sheep/ Goat</b>	Above 3 months of age (as and when required)	Black Quarter/ Haemorrhagic Septicaemia and F.M.D.	Vaccinate against B.Q./ H.S. and FMD using proven vaccine of the diseases mentioned.
<b>Pig</b>	All age groups	Preventive measures	Wholesome/ clear water must be provided after adding potassium permanganate/ sanitizer for drinking water. Pond water must be given after proper treatment.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	Skin infections	<ul style="list-style-type: none"> <li>- Use Butox liq. @ 2ml/ litres of water and brush the animal using the solution at 15 days interval.</li> <li>* For Mithun, give Ivermectin @ 200 mg per kg body weight at the time of salt feeding.</li> </ul>
		Black Quarter/ Haemorrhagic Septicaemia	Vaccinate against B.Q./ H.S. using proven vaccine of the diseases mentioned.
		F.M.D.	- Vaccinate against F.M.D.

**Fishery:**

<b>Carp culture</b>	breeding	Pond and water	<ul style="list-style-type: none"> <li>- Bund breeding can be started.</li> <li>- Water quality in breeding pool should be clean, apply lime to maintain optimum pH with high dissolved oxygen for intensive induced breeding programme.</li> </ul>
	nurseries	Pond and water	<ul style="list-style-type: none"> <li>- Pond management should be started for stocking fish spawns. Maintain water depth at 1.0-1.5m. Apply lime @300kg/ha to maintain optimum pH.</li> <li>- Apply a mixture of raw cow dung @ 500 kg/ha +75 kg urea + 75kg SSP in nursery pond water 15 days before spawn stocking.</li> </ul>
		Feed	Well balanced feeds should be provided 2-3 times a day @ 5-10% body weight/day
		Fish	20-30 million spawn can be stocked in 1 ha pond.
	Grow -out	Pond and water	Regular manuring with a slurry of RCD @1500kg/ha at interval of 30 days should be done.
		Fish	8000-10,000 fingerlings can be stocked per ha. Sampling of fish for growth, diseases (if any) should be done by regular netting.
		Feed	Well balanced feed should be provided @ 3-5% body weight per day in 2-3 splits.
<b>Paddy cum fish culture</b>	Field		Trenches/channels in rice field with a depth of 1.0 - 1.5m should be made. 30-40% of the field can be converted into trench/pond for fish culture.

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**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN**

**15<sup>th</sup> May, 2015**

**Ukhrul**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 16<sup>th</sup> to 20<sup>th</sup> May, 2015 as below:

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**Weather forecast for next five days of Ukhrul (16<sup>th</sup> to 20<sup>th</sup> May, 2015)**

There may be light to moderate rain upto Wednesday. Sky will be partly cloudy to mainly cloudy with maximum temp. of 24.0 – 27.0 °C & minimum temp. 13.0 – 16.0 °C. Relative humidity may reach upto 81 % (max RH) & 43 % (min RH). The average wind speed may be 3-4 km/ hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Pre-kharif Rice</b>	Milky dough stage		<ul style="list-style-type: none"> <li>- Drain out excess water, if accumulated due to rain in crop field. Maintain optimum water level.</li> <li>- Check for any insect-pest infestation in the crop.</li> </ul>
<b>Kharif Rice</b>	Nursery		<ul style="list-style-type: none"> <li>- Soak and incubate the well filled disease free seeds before sowing. Treat seeds with Nativio@2g/kg seed.</li> <li>- Maintain 2-3cm water level initially and drain out drain out completely before sowing. Increase water level to just submerge soil surface and expose the green aerial sprout after sowing.</li> </ul>
<b>Rabi Maize</b>	Cob maturity		<ul style="list-style-type: none"> <li>- Drain out excess rain water if accumulated due to rain in crop field.</li> <li>- Land ploughing for kharif maize may be started.</li> </ul>
<b>Soybean</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Avoid water logging.</li> <li>- Plot must be kept weed free to avoid insect/ pest.</li> <li>- 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.</li> <li>- Treat seeds with Nativio@2g/kg seeds or with Bavistin@2.5g/kg seed or with Thiram.</li> </ul>
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<b>Blackgram</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Plot must be kept weed free to avoid insect/ pest.</li> <li>- Seed rate is 10-15 kg seeds/ ha. Sowing may be done by broadcasting or dibbling.</li> </ul>
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**Animal Sciences**

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		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
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		Black Quarter/ Haemorrhagic Septicaemia	Vaccinate against B.Q./ H.S. using proven vaccine of the diseases mentioned.
		F.M.D.	- Vaccinate against F.M.D.

**Fishery:**

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