



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



**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN**

**6<sup>th</sup> November, 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 7<sup>th</sup> to 11<sup>th</sup> November, 2015 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (3<sup>rd</sup> to 5<sup>th</sup> November, 2015)**

During last three days sky was foggy during morning hours and mainly clear to partly cloudy during afternoon hours. No rainfall was recorded during last three days. Maximum temperature range observed was 25.0 – 27.0 °C, range of minimum temperature observed was 12.0 – 16.2 °C, mean relative humidity observed in morning and afternoon were 92.3 % and 58.0 % respectively. The average wind speed range was 1.1 – 2.2 km/hr.

**Weather forecast for next five days of Imphal-West (7<sup>th</sup> to 11<sup>th</sup> November, 2015)**

There may be no rain upto Wednesday. Sky will remain mainly clear to partly cloudy with maximum temp. of 24.0 – 26.0 °C & minimum temp. 10.0 – 12.0 °C. Relative humidity may reach upto 100 % (max RH) & 44 % (min RH). The average wind speed may be 3-4 km/ hr during next five days. The Wind direction may be north easterly to easterly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Kharif Rice</b>	Maturity to harvesting and post- harvesting		<ul style="list-style-type: none"> <li>- For crops at maturity stage, drain out water from the crop field 10-15 days before the expected date of harvesting.</li> <li>- Harvest rice before Sunday if 80 % of the spikelet is yellow &amp; facility for threshing is available as there is likely to have light rain.</li> <li>- Stacking of the harvested panicles for 5-7 days by turning the heap of panicles can help in better threshing.</li> <li>- After proper threshing, grains must be sundried well before storage. Dry grains/ seeds to 12-14% moisture if mechanical thresher is used.</li> </ul>
<b>Rapeseed/ Mustard</b>	Sowing		<ul style="list-style-type: none"> <li>- After harvesting of rice, zero tillage rape seed may be sown (seed rate is 10-12 kg/ ha) when soil in the field is soft at 30 cm row spacing.</li> <li>- Recommended variety – M-27.</li> <li>- After 10-15 days of sowing plant to plant distance may be maintained at 10-15cm by thinning.</li> </ul>
<b>Field Pea</b>	Land preparation to sowing		<ul style="list-style-type: none"> <li>- Land preparation may be done. Sowing may be done at a spacing of 30cm x 10-15cm.</li> <li>- Recommended variety - Rachana. Seed rate is 75 kg/ ha. Treat the seeds with Bavistin @ 2.5 mg/ lit of water before sowing.</li> </ul>
<b>Potato</b>	Land preparation to planting		<ul style="list-style-type: none"> <li>- Land preparation for planting potato may be started.</li> <li>- Proper drying of soil will be helpful to prevent cut worms.</li> <li>- Collect seed tubers from reliable source and treated it with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water or Carbaryl 50 WP or Ridomil @ 2 gm/kg seed/ tubers for 20 minutes and let it dry in shed before planting as preventive measure against soil borne diseases.</li> </ul>
<b>Storage (seed)</b>			<ul style="list-style-type: none"> <li>- Clean and store the seeds in RC-seed bins after proper drying of the desiccant charcoal. Check for moisture content or weight of seeds. For grains, store in well ventilated godowns with regular check for moisture.</li> </ul>
<b>Horticulture Crops</b>			
<p>* Light watering during morning hours is advised.</p> <p>* In fruit crops and perennial vegetables, apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature.</p>			
<b>Onion</b>	Nursery		<p>Sowing of onion may be done. Treat seeds with Captan or Thiram @ 2-3g/ kg seeds to prevent fungal disease.</p> <p>Sow seeds evenly in the nursery bed to avoid overcrowding. Cover the seeds with fine soil &amp; FYM and dried paddy straw/ gunny bag. Keep it moist till the seeds germinate.</p>
<b>Garden pea</b>	Sowing/ Land preparation		<p>Sowing of Garden pea may be done at a spacing of 10cm x 20cm. Before sowing treat seeds with Rhizobium leguminosarum, jiggery or gur solution</p>



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			so that the seeds are soaked well or follow soil inoculation with phosphobacterium. Maintain the depth of sowing to 2-3cm.
<b>Cabbage</b>	Transplanting (26-30 days old seedlings)		- Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 46 kg Urea in two splits dose after 20-40 days of transplanting.
<b>Cauliflower</b>	Transplanting (25-30 days old seedlings)		- Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 50 kg urea in two splits dose during 20-40 days after transplanting for main season crops.
<b>Tree Bean</b>	Pre-bearing and bearing trees		- Apply 60g DAP+ 10g MOP + 20g Tracel (micronutrient mixture) to pre-bearing and bearing trees before flowering for better yield. - Spray Carbendazim @ 2g/ lit water to moist the soil to a depth of 1 ft. to prevent Verticillium wilt. - 20g Carbofuran 3G/ plant may also be in-corporated as prophylactic measure against bark borer/ termites.
<b>Mango</b>			As the winter is approaching, pruning of dead twigs and branches is very essential followed by manuring and mulching. For bearing trees, about five years old, 425 g, 275 g and 280 g Urea, SSP and MOP respectively also 8 kg FYM should be applied. For irrigation, community based water harvesting pond or water shed is recommended.

**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Care & management	- Deworm with Albendazole liquid @ 30 to 40 ml for 100 birds once only and repeat with half dose after 7 days. Also, deworm at every 3 weeks interval. - Proper light is to be provided for layers. No light for grower groups. - Start keeping new batch chicks in case of layer variety.
		Vaccination for Fowl pox	-Vaccine has to be given for Fowl pox.
<b>Sheep/ Goat</b>	<b>Above 3 months of age</b>	Deworming	- Give Ranizole suspension @ 3ml/ 10 kg body weight
<b>Pig</b>	All age groups	Management	- Keep sheds dry.
		Deworming	Give Morantel citrate tab. (Banminth) @ 15mg/kg body weight.
		Ectoparasites (skin infestation)	Add Butox @ 2ml/lit of water and brush with the solution twice every fortnightly.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	Deworming	Give Rafoxamide plus Levamizole (Rafox plus)/ Ranizole suspension @ 1ml/ 2kg body weight or 5.5ml/ 10 kg body weight ( Ranizole) in lower altitude.
		Ectoparasitic infestation	Butox liquid @ 2 ml. in 1 litre of water and brush using the solution twice a week
		Black Quarter/ Black leg disease	Vaccinate with B.Q & H.S. vaccine for all the animals of above 3 months

**Fishery:**

Type of Farming	Stage	Management	Agro-metrological advisories
<b>Carp culture</b>	Nurseries/ grow-out	Pond and water	Remove aquatic weeds. Maintain minimum depth of 1.0 - 1.5 m and pH at 7.0 – 7.5. Apply Lime @ 25-30kg/ ha every month or broadcast Green AQ @ 2 litre/ha by mixing with water.
		Feed	Provide feed 2 times @ 5 % body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
		Fish	- Sampling of fish for growth, diseased fish should be done regularly by netting.

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



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**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN**

**6<sup>th</sup> November, 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 7<sup>th</sup> to 11<sup>th</sup> November, 2015 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (3<sup>rd</sup> to 5<sup>th</sup> November, 2015)**

During last three days sky was foggy during morning hours and mainly clear to partly cloudy during afternoon hours. No rainfall was recorded during last three days. Maximum temperature range observed was 25.0 – 27.0 °C, range of minimum temperature observed was 12.0 – 16.2 °C, mean relative humidity observed in morning and afternoon were 92.3 % and 58.0 % respectively. The average wind speed range was 1.1 – 2.2 km/hr.

**Weather forecast for next five days of Senapati (7<sup>th</sup> to 11<sup>th</sup> November, 2015)**

There may be no rain upto Wednesday. Sky will remain mainly clear to partly cloudy with maximum temp. of 21.0 – 24.0 °C & minimum temp. 7.0 – 9.0 °C. Relative humidity may reach upto 99 % (max RH) & 43 % (min RH). The average wind speed may be 4 km/ hr during next five days. The Wind direction may be north easterly to easterly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Kharif Rice</b>	Maturity to harvesting and post- harvesting		<ul style="list-style-type: none"> <li>- For crops at maturity stage, drain out water from the crop field 10-15 days before the expected date of harvesting.</li> <li>- Harvest rice before Sunday if 80 % of the spikelet is yellow &amp; facility for threshing is available as there is likely to have light rain.</li> <li>- Stacking of the harvested panicles for 5-7 days by turning the heap of panicles can help in better threshing.</li> <li>- After proper threshing, grains must be sundried well before storage. Dry grains/ seeds to 12-14% moisture if mechanical thresher is used.</li> </ul>
<b>Rapeseed/ Mustard</b>	Sowing		<ul style="list-style-type: none"> <li>- After harvesting of rice, zero tillage rape seed may be sown (seed rate is 10-12 kg/ ha) when soil in the field is soft at 30 cm row spacing.</li> <li>- Recommended variety – M-27.</li> <li>- After 10-15 days of sowing plant to plant distance may be maintained at 10-15cm by thinning.</li> </ul>
<b>Storage (seed)</b>			<ul style="list-style-type: none"> <li>- Clean and store the seeds in RC-seed bins after proper drying of the desiccant charcoal. Check for moisture content or weight of seeds. For grains, store in well ventilated godowns with regular check for moisture.</li> </ul>
<b>Horticulture Crops</b>			
* Light watering during morning hours is advised. * In fruit crops and perennial vegetables, apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature.			
<b>Onion</b>	Nursery		Sowing of onion may be done. Treat seeds with Captan or Thiram @ 2-3g/ kg seeds to prevent fungal disease. Sow seeds evenly in the nursery bed to avoid overcrowding. Cover the seeds with fine soil & FYM and dried paddy straw/ gunny bag. Keep it moist till the seeds germinate.
<b>Garden pea</b>	Sowing/ Land preparation		Sowing of Garden pea may be done at a spacing of 10cm x 20cm. Before sowing treat seeds with Rhizobium leguminosarum, jiggery or gur solution so that the seeds are soaked well or follow soil inoculation with phosphobacterium. Maintain the depth of sowing to 2-3cm.
<b>Cabbage</b>	Transplanting (26-30 days old seedlings)		- Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 46 kg Urea in two splits dose after 20-40 days of transplanting.
<b>Cauliflower</b>	Transplanting (25-30 days old seedlings)		- Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 50 kg urea in two splits dose during 20-40 days after transplanting for main season crops.
<b>Tree Bean</b>	Pre-bearing and bearing trees		- Apply 60g DAP+ 10g MOP + 20g Tracel (micronutrient mixture) to pre-bearing and bearing trees before flowering for better yield.



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			- Spray Carbendazim @ 2g/ lit water to moist the soil to a depth of 1 ft. to prevent Verticillium wilt. - 20g Carbofuran 3G/ plant may also be in-corporated as prophylactic measure against bark borer/ termites.
<b>Mango</b>			As the winter is approaching, pruning of dead twigs and branches is very essential followed by manuring and mulching. For bearing trees, about five years old, 425 g, 275 g and 280 g Urea, SSP and MOP respectively also 8 kg FYM should be applied. For irrigation, community based water harvesting pond or water shed is recommended.

**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Care & management	- Deworm with Albendazole liquid @ 30 to 40 ml for 100 birds once only and repeat with half dose after 7 days. Also, deworm at every 3 weeks interval. - Proper light is to be provided for layers. No light for grower groups. - Start keeping new batch chicks in case of layer variety.
		Vaccination for Fowl pox	-Vaccine has to be given for Fowl pox.
<b>Sheep/ Goat</b>	<b>Above 3 months of age</b>	Deworming	- Give Ranizole suspension @ 3ml/ 10 kg body weight
<b>Pig</b>	All age groups	Management	- Keep sheds dry.
		Deworming	Give Morantel citrate tab. (Banminth) @ 15mg/kg body weight.
		Ectoparasites (skin infestation)	Add Butox @ 2ml/lit of water and brush with the solution twice every fortnightly.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	Deworming	Give Rafoxamide plus Levamizole (Rafox plus)/ Ranizole suspension @ 1ml/ 2kg body weight or 5.5ml/ 10 kg body weight ( Ranizole) in lower altitude.
		Ectoparasitic infestation	Butox liquid @ 2 ml. in 1 litre of water and brush using the solution twice a week
		Black Quarter/ Black leg disease	Vaccinate with B.Q & H.S. vaccine for all the animals of above 3 months

**Fishery:**

Type of Farming	Stage	Management	Agro-metrological advisories
<b>Carp culture</b>	Nurseries/ grow-out	Pond and water	Remove aquatic weeds. Maintain minimum depth of 1.0 - 1.5 m and pH at 7.0 – 7.5. Apply Lime @ 25-30kg/ ha every month or broadcast Green AQ @ 2 litre/ha by mixing with water.
		Feed	Provide feed 2 times @ 5 % body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
		Fish	- Sampling of fish for growth, diseased fish should be done regularly by netting.

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**6<sup>th</sup> November, 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 7<sup>th</sup> to 11<sup>th</sup> November, 2015 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (3<sup>rd</sup> to 5<sup>th</sup> November, 2015)**

During last three days sky was foggy during morning hours and mainly clear to partly cloudy during afternoon hours. No rainfall was recorded during last three days. Maximum temperature range observed was 25.0 – 27.0 °C, range of minimum temperature observed was 12.0 – 16.2 °C, mean relative humidity observed in morning and afternoon were 92.3 % and 58.0 % respectively. The average wind speed range was 1.1 – 2.2 km/hr.

**Weather forecast for next five days of Tamenglong (7<sup>th</sup> to 11<sup>th</sup> November, 2015)**

There may be no rain upto Wednesday. Sky will remain mainly clear to partly cloudy with maximum temp. of 25.0 – 26.0 °C & minimum temp. 9.0 – 11.0 °C. Relative humidity may reach upto 94 % (max RH) & 43 % (min RH). The average wind speed may be 4 km/ hr during next five days. The Wind direction may be north easterly to easterly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Kharif Rice</b>	Maturity to harvesting and post- harvesting		<ul style="list-style-type: none"> <li>- For crops at maturity stage, drain out water from the crop field 10-15 days before the expected date of harvesting.</li> <li>- Harvest rice before Sunday if 80 % of the spikelet is yellow &amp; facility for threshing is available as there is likely to have light rain.</li> <li>- Stacking of the harvested panicles for 5-7 days by turning the heap of panicles can help in better threshing.</li> <li>- After proper threshing, grains must be sundried well before storage. Dry grains/ seeds to 12-14% moisture if mechanical thresher is used.</li> </ul>
<b>Rapeseed/ Mustard</b>	Sowing		<ul style="list-style-type: none"> <li>- After harvesting of rice, zero tillage rape seed may be sown (seed rate is 10-12 kg/ ha) when soil in the field is soft at 30 cm row spacing.</li> <li>- Recommended variety – M-27.</li> <li>- After 10-15 days of sowing plant to plant distance may be maintained at 10-15cm by thinning.</li> </ul>
<b>Field Pea</b>	Land preparation to sowing		<ul style="list-style-type: none"> <li>- Land preparation may be done. Sowing may be done at a spacing of 30cm x 10-15cm.</li> <li>- Recommended variety - Rachana. Seed rate is 75 kg/ ha. Treat the seeds with Bavistin @ 2.5 mg/ lit of water before sowing.</li> </ul>
<b>Potato</b>	Land preparation to planting		<ul style="list-style-type: none"> <li>- Land preparation for planting potato may be started.</li> <li>- Proper drying of soil will be helpful to prevent cut worms.</li> <li>- Collect seed tubers from reliable source and treated it with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water or Carbaryl 50 WP or Ridomil @ 2 gm/kg seed/ tubers for 20 minutes and let it dry in shed before planting as preventive measure against soil borne diseases.</li> </ul>
<b>Storage (seed)</b>			<ul style="list-style-type: none"> <li>- Clean and store the seeds in RC-seed bins after proper drying of the desiccant charcoal. Check for moisture content or weight of seeds. For grains, store in well ventilated godowns with regular check for moisture.</li> </ul>
<b>Horticulture Crops</b>			
* Light watering during morning hours is advised. * In fruit crops and perennial vegetables, apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature.			
<b>Onion</b>	Nursery		Sowing of onion may be done. Treat seeds with Captan or Thiram @ 2-3g/ kg seeds to prevent fungal disease. Sow seeds evenly in the nursery bed to avoid overcrowding. Cover the seeds with fine soil & FYM and dried paddy straw/ gunny bag. Keep it moist till the seeds germinate.
<b>Garden pea</b>	Sowing/ Land preparation		Sowing of Garden pea may be done at a spacing of 10cm x 20cm. Before sowing treat seeds with Rhizobium leguminosarum, jiggery or gur solution





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**“Gramin Krishi Mausam Seva”**

			so that the seeds are soaked well or follow soil inoculation with phosphobacterium. Maintain the depth of sowing to 2-3cm.
<b>Cabbage</b>	Transplanting (26-30 days old seedlings)		- Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 46 kg Urea in two splits dose after 20-40 days of transplanting.
<b>Cauliflower</b>	Transplanting (25-30 days old seedlings)		- Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 50 kg urea in two splits dose during 20-40 days after transplanting for main season crops.
<b>Tree Bean</b>	Pre-bearing and bearing trees		- Apply 60g DAP+ 10g MOP + 20g Tracel (micronutrient mixture) to pre-bearing and bearing trees before flowering for better yield. - Spray Carbendazim @ 2g/ lit water to moist the soil to a depth of 1 ft. to prevent Verticillium wilt. - 20g Carbofuran 3G/ plant may also be in-corporated as prophylactic measure against bark borer/ termites.
<b>Mango</b>			As the winter is approaching, pruning of dead twigs and branches is very essential followed by manuring and mulching. For bearing trees, about five years old, 425 g, 275 g and 280 g Urea, SSP and MOP respectively also 8 kg FYM should be applied. For irrigation, community based water harvesting pond or water shed is recommended.

**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Care & management	- Deworm with Albendazole liquid @ 30 to 40 ml for 100 birds once only and repeat with half dose after 7 days. Also, deworm at every 3 weeks interval. - Proper light is to be provided for layers. No light for grower groups. - Start keeping new batch chicks in case of layer variety.
		Vaccination for Fowl pox	-Vaccine has to be given for Fowl pox.
<b>Sheep/ Goat</b>	<b>Above 3 months of age</b>	Deworming	- Give Ranizole suspension @ 3ml/ 10 kg body weight
<b>Pig</b>	All age groups	Management	- Keep sheds dry.
		Deworming	Give Morantel citrate tab. (Banminth) @ 15mg/kg body weight.
		Ectoparasites (skin infestation)	Add Butox @ 2ml/lit of water and brush with the solution twice every fortnightly.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	Deworming	Give Rafoxamide plus Levamisole (Rafox plus)/ Ranizole suspension @ 1ml/ 2kg body weight or 5.5ml/ 10 kg body weight ( Ranizole) in lower altitude.
		Ectoparasitic infestation	Butox liquid @ 2 ml. in 1 litre of water and brush using the solution twice a week
		Black Quarter/ Black leg disease	Vaccinate with B.Q & H.S. vaccine for all the animals of above 3 months

**Fishery:**

Type of Farming	Stage	Management	Agro-metrological advisories
<b>Carp culture</b>	Nurseries/ grow-out	Pond and water	Remove aquatic weeds. Maintain minimum depth of 1.0 - 1.5 m and pH at 7.0 – 7.5. Apply Lime @ 25-30kg/ ha every month or broadcast Green AQ @ 2 litre/ha by mixing with water.
		Feed	Provide feed 2 times @ 5 % body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
		Fish	- Sampling of fish for growth, diseased fish should be done regularly by netting.

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**6<sup>th</sup> November, 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 7<sup>th</sup> to 11<sup>th</sup> November, 2015 as below:

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During last three days sky was foggy during morning hours and mainly clear to partly cloudy during afternoon hours. No rainfall was recorded during last three days. Maximum temperature range observed was 25.0 – 27.0 °C, range of minimum temperature observed was 12.0 – 16.2 °C, mean relative humidity observed in morning and afternoon were 92.3 % and 58.0 % respectively. The average wind speed range was 1.1 – 2.2 km/hr.

**Weather forecast for next five days of Thoubal (7<sup>th</sup> to 11<sup>th</sup> November, 2015)**

There may be no rain upto Wednesday. Sky will remain mainly clear to partly cloudy with maximum temp. of 24.0 – 26.0 °C & minimum temp. 8.0 – 11.0 °C. Relative humidity may reach upto 100 % (max RH) & 52 % (min RH). The average wind speed may be 2 km/ hr during next five days. The Wind direction may be north easterly to easterly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Kharif Rice</b>	Maturity to harvesting and post- harvesting		<ul style="list-style-type: none"> <li>- For crops at maturity stage, drain out water from the crop field 10-15 days before the expected date of harvesting.</li> <li>- Harvest rice before Sunday if 80 % of the spikelet is yellow &amp; facility for threshing is available as there is likely to have light rain.</li> <li>- Stacking of the harvested panicles for 5-7 days by turning the heap of panicles can help in better threshing.</li> <li>- After proper threshing, grains must be sundried well before storage. Dry grains/ seeds to 12-14% moisture if mechanical thresher is used.</li> </ul>
<b>Rapeseed/ Mustard</b>	Sowing		<ul style="list-style-type: none"> <li>- After harvesting of rice, zero tillage rape seed may be sown (seed rate is 10-12 kg/ ha) when soil in the field is soft at 30 cm row spacing.</li> <li>- Recommended variety – M-27.</li> <li>- After 10-15 days of sowing plant to plant distance may be maintained at 10-15cm by thinning.</li> </ul>
<b>Field Pea</b>	Land preparation to sowing		<ul style="list-style-type: none"> <li>- Land preparation may be done. Sowing may be done at a spacing of 30cm x 10-15cm.</li> <li>- Recommended variety - Rachana. Seed rate is 75 kg/ ha. Treat the seeds with Bavistin @ 2.5 mg/ lit of water before sowing.</li> </ul>
<b>Potato</b>	Land preparation to planting		<ul style="list-style-type: none"> <li>- Land preparation for planting potato may be started.</li> <li>- Proper drying of soil will be helpful to prevent cut worms.</li> <li>- Collect seed tubers from reliable source and treated it with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water or Carbaryl 50 WP or Ridomil @ 2 gm/kg seed/ tubers for 20 minutes and let it dry in shed before planting as preventive measure against soil borne diseases.</li> </ul>
<b>Storage (seed)</b>			<ul style="list-style-type: none"> <li>- Clean and store the seeds in RC-seed bins after proper drying of the desiccant charcoal. Check for moisture content or weight of seeds. For grains, store in well ventilated godowns with regular check for moisture.</li> </ul>
<b>Horticulture Crops</b>			
* Light watering during morning hours is advised. * In fruit crops and perennial vegetables, apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature.			
<b>Onion</b>	Nursery		Sowing of onion may be done. Treat seeds with Captan or Thiram @ 2-3g/ kg seeds to prevent fungal disease. Sow seeds evenly in the nursery bed to avoid overcrowding. Cover the seeds with fine soil & FYM and dried paddy straw/ gunny bag. Keep it moist till the seeds germinate.
<b>Garden pea</b>	Sowing/ Land preparation		Sowing of Garden pea may be done at a spacing of 10cm x 20cm. Before sowing treat seeds with Rhizobium leguminosarum, jiggery or gur solution



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



**“Gramin Krishi Mausam Seva”**

			so that the seeds are soaked well or follow soil inoculation with phosphobacterium. Maintain the depth of sowing to 2-3cm.
<b>Cabbage</b>	Transplanting (26-30 days old seedlings)		- Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 46 kg Urea in two splits dose after 20-40 days of transplanting.
<b>Cauliflower</b>	Transplanting (25-30 days old seedlings)		- Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 50 kg urea in two splits dose during 20-40 days after transplanting for main season crops.
<b>Tree Bean</b>	Pre-bearing and bearing trees		- Apply 60g DAP+ 10g MOP + 20g Tracel (micronutrient mixture) to pre-bearing and bearing trees before flowering for better yield. - Spray Carbendazim @ 2g/ lit water to moist the soil to a depth of 1 ft. to prevent Verticillium wilt. - 20g Carbofuran 3G/ plant may also be in-corporated as prophylactic measure against bark borer/ termites.
<b>Mango</b>			As the winter is approaching, pruning of dead twigs and branches is very essential followed by manuring and mulching. For bearing trees, about five years old, 425 g, 275 g and 280 g Urea, SSP and MOP respectively also 8 kg FYM should be applied. For irrigation, community based water harvesting pond or water shed is recommended.

**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Care & management	- Deworm with Albendazole liquid @ 30 to 40 ml for 100 birds once only and repeat with half dose after 7 days. Also, deworm at every 3 weeks interval. - Proper light is to be provided for layers. No light for grower groups. - Start keeping new batch chicks in case of layer variety.
		Vaccination for Fowl pox	-Vaccine has to be given for Fowl pox.
<b>Sheep/ Goat</b>	<b>Above 3 months of age</b>	Deworming	- Give Ranizole suspension @ 3ml/ 10 kg body weight
<b>Pig</b>	All age groups	Management	- Keep sheds dry.
		Deworming	Give Morantel citrate tab. (Banminth) @ 15mg/kg body weight.
		Ectoparasites (skin infestation)	Add Butox @ 2ml/lit of water and brush with the solution twice every fortnightly.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	Deworming	Give Rafoxamide plus Levamisole (Rafox plus)/ Ranizole suspension @ 1ml/ 2kg body weight or 5.5ml/ 10 kg body weight ( Ranizole) in lower altitude.
		Ectoparasitic infestation	Butox liquid @ 2 ml. in 1 litre of water and brush using the solution twice a week
		Black Quarter/ Black leg disease	Vaccinate with B.Q & H.S. vaccine for all the animals of above 3 months

**Fishery:**

Type of Farming	Stage	Management	Agro-metrological advisories
<b>Carp culture</b>	Nurseries/ grow-out	Pond and water	Remove aquatic weeds. Maintain minimum depth of 1.0 - 1.5 m and pH at 7.0 – 7.5. Apply Lime @ 25-30kg/ ha every month or broadcast Green AQ @ 2 litre/ha by mixing with water.
		Feed	Provide feed 2 times @ 5 % body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
		Fish	- Sampling of fish for growth, diseased fish should be done regularly by netting.

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





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



**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN**

**6<sup>th</sup> November, 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 7<sup>th</sup> to 11<sup>th</sup> November, 2015 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (3<sup>rd</sup> to 5<sup>th</sup> November, 2015)**

During last three days sky was foggy during morning hours and mainly clear to partly cloudy during afternoon hours. No rainfall was recorded during last three days. Maximum temperature range observed was 25.0 – 27.0 °C, range of minimum temperature observed was 12.0 – 16.2 °C, mean relative humidity observed in morning and afternoon were 92.3 % and 58.0 % respectively. The average wind speed range was 1.1 – 2.2 km/hr.

**Weather forecast for next five days of Ukhrul (7<sup>th</sup> to 11<sup>th</sup> November, 2015)**

There may be no rain upto Wednesday. Sky will remain mainly clear to partly cloudy with maximum temp. of 21.0 – 24.0 °C & minimum temp. 7.0 – 9.0 °C. Relative humidity may reach upto 98 % (max RH) & 51 % (min RH). The average wind speed may be 3 km/ hr during next five days. The Wind direction may be north easterly to easterly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Kharif Rice</b>	Maturity to harvesting and post- harvesting		<ul style="list-style-type: none"> <li>- For crops at maturity stage, drain out water from the crop field 10-15 days before the expected date of harvesting.</li> <li>- Harvest rice before Sunday if 80 % of the spikelet is yellow &amp; facility for threshing is available as there is likely to have light rain.</li> <li>- Stacking of the harvested panicles for 5-7 days by turning the heap of panicles can help in better threshing.</li> <li>- After proper threshing, grains must be sundried well before storage. Dry grains/ seeds to 12-14% moisture if mechanical thresher is used.</li> </ul>
<b>Rapeseed/ Mustard</b>	Sowing		<ul style="list-style-type: none"> <li>- After harvesting of rice, zero tillage rape seed may be sown (seed rate is 10-12 kg/ ha) when soil in the field is soft at 30 cm row spacing.</li> <li>- Recommended variety – M-27.</li> <li>- After 10-15 days of sowing plant to plant distance may be maintained at 10-15cm by thinning.</li> </ul>
<b>Storage (seed)</b>			<ul style="list-style-type: none"> <li>- Clean and store the seeds in RC-seed bins after proper drying of the desiccant charcoal. Check for moisture content or weight of seeds. For grains, store in well ventilated godowns with regular check for moisture.</li> </ul>
<b>Horticulture Crops</b>			
* Light watering during morning hours is advised. * In fruit crops and perennial vegetables, apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature.			
<b>Onion</b>	Nursery		Sowing of onion may be done. Treat seeds with Captan or Thiram @ 2-3g/ kg seeds to prevent fungal disease. Sow seeds evenly in the nursery bed to avoid overcrowding. Cover the seeds with fine soil & FYM and dried paddy straw/ gunny bag. Keep it moist till the seeds germinate.
<b>Garden pea</b>	Sowing/ Land preparation		Sowing of Garden pea may be done at a spacing of 10cm x 20cm. Before sowing treat seeds with Rhizobium leguminosarum, jiggery or gur solution so that the seeds are soaked well or follow soil inoculation with phosphobacterium. Maintain the depth of sowing to 2-3cm.
<b>Cabbage</b>	Transplanting (26-30 days old seedlings)		- Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 46 kg Urea in two splits dose after 20-40 days of transplanting.
<b>Cauliflower</b>	Transplanting (25-30 days old seedlings)		- Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 50 kg urea in two splits dose during 20-40 days after transplanting for main season crops.
<b>Tree Bean</b>	Pre-bearing and bearing trees		- Apply 60g DAP+ 10g MOP + 20g Tracel (micronutrient mixture) to pre-bearing and bearing trees before flowering for better yield.



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



**“Gramin Krishi Mausam Seva”**

			- Spray Carbendazim @ 2g/ lit water to moist the soil to a depth of 1 ft. to prevent Verticillium wilt. - 20g Carbofuran 3G/ plant may also be in-corporated as prophylactic measure against bark borer/ termites.
<b>Mango</b>			As the winter is approaching, pruning of dead twigs and branches is very essential followed by manuring and mulching. For bearing trees, about five years old, 425 g, 275 g and 280 g Urea, SSP and MOP respectively also 8 kg FYM should be applied. For irrigation, community based water harvesting pond or water shed is recommended.

**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Care & management	- Deworm with Albendazole liquid @ 30 to 40 ml for 100 birds once only and repeat with half dose after 7 days. Also, deworm at every 3 weeks interval. - Proper light is to be provided for layers. No light for grower groups. - Start keeping new batch chicks in case of layer variety.
		Vaccination for Fowl pox	-Vaccine has to be given for Fowl pox.
<b>Sheep/ Goat</b>	<b>Above 3 months of age</b>	Deworming	- Give Ranizole suspension @ 3ml/ 10 kg body weight
<b>Pig</b>	All age groups	Management	- Keep sheds dry.
		Deworming	Give Morantel citrate tab. (Banminth) @ 15mg/kg body weight.
		Ectoparasites (skin infestation)	Add Butox @ 2ml/lit of water and brush with the solution twice every fortnightly.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	Deworming	Give Rafoxamide plus Levamizole (Rafox plus)/ Ranizole suspension @ 1ml/ 2kg body weight or 5.5ml/ 10 kg body weight ( Ranizole) in lower altitude.
		Ectoparasitic infestation	Butox liquid @ 2 ml. in 1 litre of water and brush using the solution twice a week
		Black Quarter/ Black leg disease	Vaccinate with B.Q & H.S. vaccine for all the animals of above 3 months

**Fishery:**

Type of Farming	Stage	Management	Agro-metrological advisories
<b>Carp culture</b>	Nurseries/ grow-out	Pond and water	Remove aquatic weeds. Maintain minimum depth of 1.0 - 1.5 m and pH at 7.0 – 7.5. Apply Lime @ 25-30kg/ ha every month or broadcast Green AQ @ 2 litre/ha by mixing with water.
		Feed	Provide feed 2 times @ 5 % body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
		Fish	- Sampling of fish for growth, diseased fish should be done regularly by netting.

(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**

**6<sup>th</sup> November, 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 7<sup>th</sup> to 11<sup>th</sup> November, 2015 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (3<sup>rd</sup> to 5<sup>th</sup> November, 2015)**

During last three days sky was foggy during morning hours and mainly clear to partly cloudy during afternoon hours. No rainfall was recorded during last three days. Maximum temperature range observed was 25.0 – 27.0 °C, range of minimum temperature observed was 12.0 – 16.2 °C, mean relative humidity observed in morning and afternoon were 92.3 % and 58.0 % respectively. The average wind speed range was 1.1 – 2.2 km/hr.

**Weather forecast for next five days of Bishnupur (7<sup>th</sup> to 11<sup>th</sup> November, 2015)**

There may be no rain upto Wednesday. Sky will remain mainly clear to partly cloudy with maximum temp. of 25.0 – 26.0 °C & minimum temp. 9.0 – 11.0 °C. Relative humidity may reach upto 98 % (max RH) & 48 % (min RH). The average wind speed may be 2-4 km/ hr during next five days. The Wind direction may be north easterly to easterly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Kharif Rice</b>	Maturity to harvesting and post- harvesting		<ul style="list-style-type: none"> <li>- For crops at maturity stage, drain out water from the crop field 10-15 days before the expected date of harvesting.</li> <li>- Harvest rice before Sunday if 80 % of the spikelet is yellow &amp; facility for threshing is available as there is likely to have light rain.</li> <li>- Stacking of the harvested panicles for 5-7 days by turning the heap of panicles can help in better threshing.</li> <li>- After proper threshing, grains must be sundried well before storage. Dry grains/ seeds to 12-14% moisture if mechanical thresher is used.</li> </ul>
<b>Rapeseed/ Mustard</b>	Sowing		<ul style="list-style-type: none"> <li>- After harvesting of rice, zero tillage rape seed may be sown (seed rate is 10-12 kg/ ha) when soil in the field is soft at 30 cm row spacing.</li> <li>- Recommended variety – M-27.</li> <li>- After 10-15 days of sowing plant to plant distance may be maintained at 10-15cm by thinning.</li> </ul>
<b>Field Pea</b>	Land preparation to sowing		<ul style="list-style-type: none"> <li>- Land preparation may be done. Sowing may be done at a spacing of 30cm x 10-15cm.</li> <li>- Recommended variety - Rachana. Seed rate is 75 kg/ ha. Treat the seeds with Bavistin @ 2.5 mg/ lit of water before sowing.</li> </ul>
<b>Potato</b>	Land preparation to planting		<ul style="list-style-type: none"> <li>- Land preparation for planting potato may be started.</li> <li>- Proper drying of soil will be helpful to prevent cut worms.</li> <li>- Collect seed tubers from reliable source and treated it with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water or Carbaryl 50 WP or Ridomil @ 2 gm/kg seed/ tubers for 20 minutes and let it dry in shed before planting as preventive measure against soil borne diseases.</li> </ul>
<b>Storage (seed)</b>			<ul style="list-style-type: none"> <li>- Clean and store the seeds in RC-seed bins after proper drying of the desiccant charcoal. Check for moisture content or weight of seeds. For grains, store in well ventilated godowns with regular check for moisture.</li> </ul>
<b>Horticulture Crops</b>			
* Light watering during morning hours is advised. * In fruit crops and perennial vegetables, apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature.			
<b>Onion</b>	Nursery		Sowing of onion may be done. Treat seeds with Captan or Thiram @ 2-3g/ kg seeds to prevent fungal disease. Sow seeds evenly in the nursery bed to avoid overcrowding. Cover the seeds with fine soil & FYM and dried paddy straw/ gunny bag. Keep it moist till the seeds germinate.
<b>Garden pea</b>	Sowing/ Land preparation		Sowing of Garden pea may be done at a spacing of 10cm x 20cm. Before sowing treat seeds with Rhizobium leguminosarum, jiggery or gur solution



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



**“Gramin Krishi Mausam Seva”**

			so that the seeds are soaked well or follow soil inoculation with phosphobacterium. Maintain the depth of sowing to 2-3cm.
<b>Cabbage</b>	Transplanting (26-30 days old seedlings)		- Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 46 kg Urea in two splits dose after 20-40 days of transplanting.
<b>Cauliflower</b>	Transplanting (25-30 days old seedlings)		- Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 50 kg urea in two splits dose during 20-40 days after transplanting for main season crops.
<b>Tree Bean</b>	Pre-bearing and bearing trees		- Apply 60g DAP+ 10g MOP + 20g Tracel (micronutrient mixture) to pre-bearing and bearing trees before flowering for better yield. - Spray Carbendazim @ 2g/ lit water to moist the soil to a depth of 1 ft. to prevent Verticillium wilt. - 20g Carbofuran 3G/ plant may also be in-corporated as prophylactic measure against bark borer/ termites.
<b>Mango</b>			As the winter is approaching, pruning of dead twigs and branches is very essential followed by manuring and mulching. For bearing trees, about five years old, 425 g, 275 g and 280 g Urea, SSP and MOP respectively also 8 kg FYM should be applied. For irrigation, community based water harvesting pond or water shed is recommended.

**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Care & management	- Deworm with Albendazole liquid @ 30 to 40 ml for 100 birds once only and repeat with half dose after 7 days. Also, deworm at every 3 weeks interval. - Proper light is to be provided for layers. No light for grower groups. - Start keeping new batch chicks in case of layer variety.
		Vaccination for Fowl pox	-Vaccine has to be given for Fowl pox.
<b>Sheep/ Goat</b>	<b>Above 3 months of age</b>	Deworming	- Give Ranizole suspension @ 3ml/ 10 kg body weight
<b>Pig</b>	All age groups	Management	- Keep sheds dry.
		Deworming	Give Morantel citrate tab. (Banminth) @ 15mg/kg body weight.
		Ectoparasites (skin infestation)	Add Butox @ 2ml/lit of water and brush with the solution twice every fortnightly.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	Deworming	Give Rafoxamide plus Levamizole (Rafox plus)/ Ranizole suspension @ 1ml/ 2kg body weight or 5.5ml/ 10 kg body weight ( Ranizole) in lower altitude.
		Ectoparasitic infestation	Butox liquid @ 2 ml. in 1 litre of water and brush using the solution twice a week
		Black Quarter/ Black leg disease	Vaccinate with B.Q & H.S. vaccine for all the animals of above 3 months

**Fishery:**

Type of Farming	Stage	Management	Agro-metrological advisories
<b>Carp culture</b>	Nurseries/ grow-out	Pond and water	Remove aquatic weeds. Maintain minimum depth of 1.0 - 1.5 m and pH at 7.0 – 7.5. Apply Lime @ 25-30kg/ ha every month or broadcast Green AQ @ 2 litre/ha by mixing with water.
		Feed	Provide feed 2 times @ 5 % body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
		Fish	- Sampling of fish for growth, diseased fish should be done regularly by netting.

(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**

**6<sup>th</sup> November, 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 7<sup>th</sup> to 11<sup>th</sup> November, 2015 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (3<sup>rd</sup> to 5<sup>th</sup> November, 2015)**

During last three days sky was foggy during morning hours and mainly clear to partly cloudy during afternoon hours. No rainfall was recorded during last three days. Maximum temperature range observed was 25.0 – 27.0 °C, range of minimum temperature observed was 12.0 – 16.2 °C, mean relative humidity observed in morning and afternoon were 92.3 % and 58.0 % respectively. The average wind speed range was 1.1 – 2.2 km/hr.

**Weather forecast for next five days of Chandel (7<sup>th</sup> to 11<sup>th</sup> November, 2015)**

There may be no rain upto Wednesday. Sky will remain mainly clear to partly cloudy with maximum temp. of 23.0 – 25.0 °C & minimum temp. 10.0 – 11.0 °C. Relative humidity may reach upto 99 % (max RH) & 56 % (min RH). The average wind speed may be 2-3 km/ hr during next five days. The Wind direction may be north easterly to easterly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Kharif Rice</b>	Maturity to harvesting and post- harvesting		<ul style="list-style-type: none"> <li>- For crops at maturity stage, drain out water from the crop field 10-15 days before the expected date of harvesting.</li> <li>- Harvest rice before Sunday if 80 % of the spikelet is yellow &amp; facility for threshing is available as there is likely to have light rain.</li> <li>- Stacking of the harvested panicles for 5-7 days by turning the heap of panicles can help in better threshing.</li> <li>- After proper threshing, grains must be sundried well before storage. Dry grains/ seeds to 12-14% moisture if mechanical thresher is used.</li> </ul>
<b>Rapeseed/ Mustard</b>	Sowing		<ul style="list-style-type: none"> <li>- After harvesting of rice, zero tillage rape seed may be sown (seed rate is 10-12 kg/ ha) when soil in the field is soft at 30 cm row spacing.</li> <li>- Recommended variety – M-27.</li> <li>- After 10-15 days of sowing plant to plant distance may be maintained at 10-15cm by thinning.</li> </ul>
<b>Field Pea</b>	Land preparation to sowing		<ul style="list-style-type: none"> <li>- Land preparation may be done. Sowing may be done at a spacing of 30cm x 10-15cm.</li> <li>- Recommended variety - Rachana. Seed rate is 75 kg/ ha. Treat the seeds with Bavistin @ 2.5 mg/ lit of water before sowing.</li> </ul>
<b>Potato</b>	Land preparation to planting		<ul style="list-style-type: none"> <li>- Land preparation for planting potato may be started.</li> <li>- Proper drying of soil will be helpful to prevent cut worms.</li> <li>- Collect seed tubers from reliable source and treated it with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water or Carbaryl 50 WP or Ridomil @ 2 gm/kg seed/ tubers for 20 minutes and let it dry in shed before planting as preventive measure against soil borne diseases.</li> </ul>
<b>Storage (seed)</b>			<ul style="list-style-type: none"> <li>- Clean and store the seeds in RC-seed bins after proper drying of the desiccant charcoal. Check for moisture content or weight of seeds. For grains, store in well ventilated godowns with regular check for moisture.</li> </ul>
<b>Horticulture Crops</b>			
* Light watering during morning hours is advised. * In fruit crops and perennial vegetables, apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature.			
<b>Onion</b>	Nursery		Sowing of onion may be done. Treat seeds with Captan or Thiram @ 2-3g/ kg seeds to prevent fungal disease. Sow seeds evenly in the nursery bed to avoid overcrowding. Cover the seeds with fine soil & FYM and dried paddy straw/ gunny bag. Keep it moist till the seeds germinate.
<b>Garden pea</b>	Sowing/ Land preparation		Sowing of Garden pea may be done at a spacing of 10cm x 20cm. Before sowing treat seeds with Rhizobium leguminosarum, jiggery or gur solution





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



**“Gramin Krishi Mausam Seva”**

			so that the seeds are soaked well or follow soil inoculation with phosphobacterium. Maintain the depth of sowing to 2-3cm.
<b>Cabbage</b>	Transplanting (26-30 days old seedlings)		- Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 46 kg Urea in two splits dose after 20-40 days of transplanting.
<b>Cauliflower</b>	Transplanting (25-30 days old seedlings)		- Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 50 kg urea in two splits dose during 20-40 days after transplanting for main season crops.
<b>Tree Bean</b>	Pre-bearing and bearing trees		- Apply 60g DAP+ 10g MOP + 20g Tracel (micronutrient mixture) to pre-bearing and bearing trees before flowering for better yield. - Spray Carbendazim @ 2g/ lit water to moist the soil to a depth of 1 ft. to prevent Verticillium wilt. - 20g Carbofuran 3G/ plant may also be in-corporated as prophylactic measure against bark borer/ termites.
<b>Mango</b>			As the winter is approaching, pruning of dead twigs and branches is very essential followed by manuring and mulching. For bearing trees, about five years old, 425 g, 275 g and 280 g Urea, SSP and MOP respectively also 8 kg FYM should be applied. For irrigation, community based water harvesting pond or water shed is recommended.

**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Care & management	- Deworm with Albendazole liquid @ 30 to 40 ml for 100 birds once only and repeat with half dose after 7 days. Also, deworm at every 3 weeks interval. - Proper light is to be provided for layers. No light for grower groups. - Start keeping new batch chicks in case of layer variety.
		Vaccination for Fowl pox	-Vaccine has to be given for Fowl pox.
<b>Sheep/ Goat</b>	<b>Above 3 months of age</b>	Deworming	- Give Ranizole suspension @ 3ml/ 10 kg body weight
<b>Pig</b>	All age groups	Management	- Keep sheds dry.
		Deworming	Give Morantel citrate tab. (Banminth) @ 15mg/kg body weight.
		Ectoparasites (skin infestation)	Add Butox @ 2ml/lit of water and brush with the solution twice every fortnightly.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	Deworming	Give Rafoxamide plus Levamisole (Rafox plus)/ Ranizole suspension @ 1ml/ 2kg body weight or 5.5ml/ 10 kg body weight ( Ranizole) in lower altitude.
		Ectoparasitic infestation	Butox liquid @ 2 ml. in 1 litre of water and brush using the solution twice a week
		Black Quarter/ Black leg disease	Vaccinate with B.Q & H.S. vaccine for all the animals of above 3 months

**Fishery:**

Type of Farming	Stage	Management	Agro-metrological advisories
<b>Carp culture</b>	Nurseries/ grow-out	Pond and water	Remove aquatic weeds. Maintain minimum depth of 1.0 - 1.5 m and pH at 7.0 – 7.5. Apply Lime @ 25-30kg/ ha every month or broadcast Green AQ @ 2 litre/ha by mixing with water.
		Feed	Provide feed 2 times @ 5 % body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
		Fish	- Sampling of fish for growth, diseased fish should be done regularly by netting.

(I. Meghachandra Singh)  
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**ICAR Research Complex for N.E.H. Region  
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**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN**

**6<sup>th</sup> November, 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 7<sup>th</sup> to 11<sup>th</sup> November, 2015 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (3<sup>rd</sup> to 5<sup>th</sup> November, 2015)**

During last three days sky was foggy during morning hours and mainly clear to partly cloudy during afternoon hours. No rainfall was recorded during last three days. Maximum temperature range observed was 25.0 – 27.0 °C, range of minimum temperature observed was 12.0 – 16.2 °C, mean relative humidity observed in morning and afternoon were 92.3 % and 58.0 % respectively. The average wind speed range was 1.1 – 2.2 km/hr.

**Weather forecast for next five days of Churachandpur (7<sup>th</sup> to 11<sup>th</sup> November, 2015)**

There may be no rain upto Wednesday. Sky will remain mainly clear to partly cloudy with maximum temp. of 25.0 – 27.0 °C & minimum temp. 8.0 – 10.0 °C. Relative humidity may reach upto 98 % (max RH) & 47 % (min RH). The average wind speed may be 3-4 km/ hr during next five days. The Wind direction may be north easterly to easterly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Kharif Rice</b>	Maturity to harvesting and post- harvesting		<ul style="list-style-type: none"> <li>- For crops at maturity stage, drain out water from the crop field 10-15 days before the expected date of harvesting.</li> <li>- Harvest rice before Sunday if 80 % of the spikelet is yellow &amp; facility for threshing is available as there is likely to have light rain.</li> <li>- Stacking of the harvested panicles for 5-7 days by turning the heap of panicles can help in better threshing.</li> <li>- After proper threshing, grains must be sundried well before storage. Dry grains/ seeds to 12-14% moisture if mechanical thresher is used.</li> </ul>
<b>Rapeseed/ Mustard</b>	Sowing		<ul style="list-style-type: none"> <li>- After harvesting of rice, zero tillage rape seed may be sown (seed rate is 10-12 kg/ ha) when soil in the field is soft at 30 cm row spacing.</li> <li>- Recommended variety – M-27.</li> <li>- After 10-15 days of sowing plant to plant distance may be maintained at 10-15cm by thinning.</li> </ul>
<b>Field Pea</b>	Land preparation to sowing		<ul style="list-style-type: none"> <li>- Land preparation may be done. Sowing may be done at a spacing of 30cm x 10-15cm.</li> <li>- Recommended variety - Rachana. Seed rate is 75 kg/ ha. Treat the seeds with Bavistin @ 2.5 mg/ lit of water before sowing.</li> </ul>
<b>Potato</b>	Land preparation to planting		<ul style="list-style-type: none"> <li>- Land preparation for planting potato may be started.</li> <li>- Proper drying of soil will be helpful to prevent cut worms.</li> <li>- Collect seed tubers from reliable source and treated it with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water or Carbaryl 50 WP or Ridomil @ 2 gm/kg seed/ tubers for 20 minutes and let it dry in shed before planting as preventive measure against soil borne diseases.</li> </ul>
<b>Storage (seed)</b>			<ul style="list-style-type: none"> <li>- Clean and store the seeds in RC-seed bins after proper drying of the desiccant charcoal. Check for moisture content or weight of seeds. For grains, store in well ventilated godowns with regular check for moisture.</li> </ul>
<b>Horticulture Crops</b>			
* Light watering during morning hours is advised. * In fruit crops and perennial vegetables, apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature.			
<b>Onion</b>	Nursery		Sowing of onion may be done. Treat seeds with Captan or Thiram @ 2-3g/ kg seeds to prevent fungal disease. Sow seeds evenly in the nursery bed to avoid overcrowding. Cover the seeds with fine soil & FYM and dried paddy straw/ gunny bag. Keep it moist till the seeds germinate.
<b>Garden pea</b>	Sowing/ Land preparation		Sowing of Garden pea may be done at a spacing of 10cm x 20cm. Before sowing treat seeds with Rhizobium leguminosarum, jiggery or gur solution



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



**“Gramin Krishi Mausam Seva”**

			so that the seeds are soaked well or follow soil inoculation with phosphobacterium. Maintain the depth of sowing to 2-3cm.
<b>Cabbage</b>	Transplanting (26-30 days old seedlings)		- Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 46 kg Urea in two splits dose after 20-40 days of transplanting.
<b>Cauliflower</b>	Transplanting (25-30 days old seedlings)		- Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 50 kg urea in two splits dose during 20-40 days after transplanting for main season crops.
<b>Tree Bean</b>	Pre-bearing and bearing trees		- Apply 60g DAP+ 10g MOP + 20g Tracel (micronutrient mixture) to pre-bearing and bearing trees before flowering for better yield. - Spray Carbendazim @ 2g/ lit water to moist the soil to a depth of 1 ft. to prevent Verticillium wilt. - 20g Carbofuran 3G/ plant may also be in-corporated as prophylactic measure against bark borer/ termites.
<b>Mango</b>			As the winter is approaching, pruning of dead twigs and branches is very essential followed by manuring and mulching. For bearing trees, about five years old, 425 g, 275 g and 280 g Urea, SSP and MOP respectively also 8 kg FYM should be applied. For irrigation, community based water harvesting pond or water shed is recommended.

**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Care & management	- Deworm with Albendazole liquid @ 30 to 40 ml for 100 birds once only and repeat with half dose after 7 days. Also, deworm at every 3 weeks interval. - Proper light is to be provided for layers. No light for grower groups. - Start keeping new batch chicks in case of layer variety.
		Vaccination for Fowl pox	-Vaccine has to be given for Fowl pox.
<b>Sheep/ Goat</b>	<b>Above 3 months of age</b>	Deworming	- Give Ranizole suspension @ 3ml/ 10 kg body weight
<b>Pig</b>	All age groups	Management	- Keep sheds dry.
		Deworming	Give Morantel citrate tab. (Banminth) @ 15mg/kg body weight.
		Ectoparasites (skin infestation)	Add Butox @ 2ml/lit of water and brush with the solution twice every fortnightly.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	Deworming	Give Rafoxamide plus Levamisole (Rafox plus)/ Ranizole suspension @ 1ml/ 2kg body weight or 5.5ml/ 10 kg body weight ( Ranizole) in lower altitude.
		Ectoparasitic infestation	Butox liquid @ 2 ml. in 1 litre of water and brush using the solution twice a week
		Black Quarter/ Black leg disease	Vaccinate with B.Q & H.S. vaccine for all the animals of above 3 months

**Fishery:**

Type of Farming	Stage	Management	Agro-metrological advisories
<b>Carp culture</b>	Nurseries/ grow-out	Pond and water	Remove aquatic weeds. Maintain minimum depth of 1.0 - 1.5 m and pH at 7.0 – 7.5. Apply Lime @ 25-30kg/ ha every month or broadcast Green AQ @ 2 litre/ha by mixing with water.
		Feed	Provide feed 2 times @ 5 % body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
		Fish	- Sampling of fish for growth, diseased fish should be done regularly by netting.

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



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



**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN**

**6<sup>th</sup> November, 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 7<sup>th</sup> to 11<sup>th</sup> November, 2015 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (3<sup>rd</sup> to 5<sup>th</sup> November, 2015)**

During last three days sky was foggy during morning hours and mainly clear to partly cloudy during afternoon hours. No rainfall was recorded during last three days. Maximum temperature range observed was 25.0 – 27.0 °C, range of minimum temperature observed was 12.0 – 16.2 °C, mean relative humidity observed in morning and afternoon were 92.3 % and 58.0 % respectively. The average wind speed range was 1.1 – 2.2 km/hr.

**Weather forecast for next five days of Imphal-East (7<sup>th</sup> to 11<sup>th</sup> November, 2015)**

There may be no rain upto Wednesday. Sky will remain mainly clear to partly cloudy with maximum temp. of 24.0 – 26.0 °C & minimum temp. 10.0 – 12.0 °C. Relative humidity may reach upto 100 % (max RH) & 44 % (min RH). The average wind speed may be 3-4 km/ hr during next five days. The Wind direction may be north easterly to easterly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Kharif Rice</b>	Maturity to harvesting and post- harvesting		<ul style="list-style-type: none"> <li>- For crops at maturity stage, drain out water from the crop field 10-15 days before the expected date of harvesting.</li> <li>- Harvest rice before Sunday if 80 % of the spikelet is yellow &amp; facility for threshing is available as there is likely to have light rain.</li> <li>- Stacking of the harvested panicles for 5-7 days by turning the heap of panicles can help in better threshing.</li> <li>- After proper threshing, grains must be sundried well before storage. Dry grains/ seeds to 12-14% moisture if mechanical thresher is used.</li> </ul>
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