



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



**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN**

**10<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 11<sup>th</sup> to 15<sup>th</sup> November, 2015 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (6<sup>th</sup> to 9<sup>th</sup> November, 2015)**

During last four days sky was mainly clear to partly cloudy but foggy during morning hours of 6<sup>th</sup> Nov, 2015. **No** rainfall was recorded during last four days. Maximum temperature range observed was 26.0 – 27.9 °C, range of minimum temperature observed was 11.8 – 14.2 °C, mean relative humidity observed in morning and afternoon were 88.5 % and 50.0 % respectively. The average wind speed range was 1.5 – 2.8 km/hr.

**Weather forecast for next five days of Thoubal (11<sup>th</sup> to 15<sup>th</sup> November, 2015)**

There may be no rain upto Sunday. Sky will remain mainly clear to partly cloudy with maximum temp. of 24.0 – 25.0 °C & minimum temp. 10.0 – 11.0 °C. Relative humidity may reach upto 100 % (max RH) & 47 % (min RH). The average wind speed may be 2-4 km/ hr during next five days. The Wind direction may be 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>- Harvest rice 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 to early vegetative		<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 and early vegetative		<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>Lentil</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- After harvesting of rice, lentil seed may be sown.</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>Dolichos bean</b>	Flowering to fruiting		<ul style="list-style-type: none"> <li>- As the temperature is going down, aphid population will be more.</li> <li>- Harvest the mature fruits and spray neem based pesticides.</li> <li>- If it is in initial flowering stage, then spray Cypermethrin @ 2 ml/ litre of water.</li> <li>- Earthing up of soil, followed by top dressing with 20g DAP + 5g MOP + 3kg FYM will helpful for fruiting.</li> </ul>
<b>Garlic</b>	Land preparation to planting		<ul style="list-style-type: none"> <li>- Garlic bulblets may be planted in prepared beds.</li> </ul>
<b>Garden pea</b>	Sowing to early vegetative		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. <ul style="list-style-type: none"> <li>- Avoid plucking off of young shoots especially of dwarf tang short</li> </ul>



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**“Gramin Krishi Mausam Seva”**

			duration crops (variety like Azad, Arkel, etc.). It will delay fruiting & reduce yield.
<b>Cabbage</b>	Vegetative (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>	Vegetative (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 (flowering to fruiting)		- 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 in soil as prophylactic measure against bark borer/ termites.

**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.
		Ranikhet disease	- Vaccinate against Ranikhet disease using Lasota strain vaccine and R <sub>2</sub> B vaccine.
		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. - Partial harvesting may be done to reduce fish population as the water level is going down.

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



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**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN**

**10<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 11<sup>th</sup> to 15<sup>th</sup> November, 2015 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (6<sup>th</sup> to 9<sup>th</sup> November, 2015)**

During last four days sky was mainly clear to partly cloudy but foggy during morning hours of 6<sup>th</sup> Nov, 2015. No rainfall was recorded during last four days. Maximum temperature range observed was 26.0 – 27.9 °C, range of minimum temperature observed was 11.8 – 14.2 °C, mean relative humidity observed in morning and afternoon were 88.5 % and 50.0 % respectively. The average wind speed range was 1.5 – 2.8 km/hr.

**Weather forecast for next five days of Ukhrul (11<sup>th</sup> to 15<sup>th</sup> November, 2015)**

There may be no rain upto Sunday. Sky will remain mainly clear to partly cloudy with maximum temp. of 20.0 – 23.0 °C & minimum temp. 7.0 – 9.0 °C. Relative humidity may reach upto 98 % (max RH) & 45 % (min RH). The average wind speed may be 2-4 km/ hr during next five days. The Wind direction may be 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>- Harvest rice 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 to early vegetative		<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 and early vegetative		<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>Lentil</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- After harvesting of rice, lentil seed may be sown.</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>Dolichos bean</b>	Flowering to fruiting		<ul style="list-style-type: none"> <li>- As the temperature is going down, aphid population will be more.</li> <li>- Harvest the mature fruits and spray neem based pesticides.</li> <li>- If it is in initial flowering stage, then spray Cypermethrin @ 2 ml/ litre of water.</li> <li>- Earthing up of soil, followed by top dressing with 20g DAP + 5g MOP + 3kg FYM will helpful for fruiting.</li> </ul>
<b>Garlic</b>	Land preparation to planting		<ul style="list-style-type: none"> <li>- Garlic bulblets may be planted in prepared beds.</li> </ul>
<b>Garden pea</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>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.</li> <li>- Avoid plucking off of young shoots especially of dwarf tang short</li> </ul>



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**“Gramin Krishi Mausam Seva”**

			duration crops (variety like Azad, Arkel, etc.). It will delay fruiting & reduce yield.
<b>Cabbage</b>	Vegetative (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>	Vegetative (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 (flowering to fruiting)		- 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 in soil as prophylactic measure against bark borer/ termites.

**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.
		Ranikhet disease	- Vaccinate against Ranikhet disease using Lasota strain vaccine and R <sub>2</sub> B vaccine.
		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. - Partial harvesting may be done to reduce fish population as the water level is going down.

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**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN**

**10<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 11<sup>th</sup> to 15<sup>th</sup> November, 2015 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (6<sup>th</sup> to 9<sup>th</sup> November, 2015)**

During last four days sky was mainly clear to partly cloudy but foggy during morning hours of 6<sup>th</sup> Nov, 2015. **No** rainfall was recorded during last four days. Maximum temperature range observed was 26.0 – 27.9 °C, range of minimum temperature observed was 11.8 – 14.2 °C, mean relative humidity observed in morning and afternoon were 88.5 % and 50.0 % respectively. The average wind speed range was 1.5 – 2.8 km/hr.

**Weather forecast for next five days of Bishnupur (11<sup>th</sup> to 15<sup>th</sup> November, 2015)**

There may be no rain upto Sunday. Sky will remain mainly clear to partly cloudy with maximum temp. of 24.0 – 26.0 °C & minimum temp. 8.0 – 9.0 °C. Relative humidity may reach upto 99 % (max RH) & 44 % (min RH). The average wind speed may be 2-4 km/ hr during next five days. The Wind direction may be 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>- Harvest rice 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 to early vegetative		<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 and early vegetative		<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>Lentil</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- After harvesting of rice, lentil seed may be sown.</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>Dolichos bean</b>	Flowering to fruiting		<ul style="list-style-type: none"> <li>- As the temperature is going down, aphid population will be more.</li> <li>- Harvest the mature fruits and spray neem based pesticides.</li> <li>- If it is in initial flowering stage, then spray Cypermethrin @ 2 ml/ litre of water.</li> <li>- Earthing up of soil, followed by top dressing with 20g DAP + 5g MOP + 3kg FYM will helpful for fruiting.</li> </ul>
<b>Garlic</b>	Land preparation to planting		<ul style="list-style-type: none"> <li>- Garlic bulblets may be planted in prepared beds.</li> </ul>
<b>Garden pea</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>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.</li> <li>- Avoid plucking off of young shoots especially of dwarf tang short</li> </ul>



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**“Gramin Krishi Mausam Seva”**

			duration crops (variety like Azad, Arkel, etc.). It will delay fruiting & reduce yield.
<b>Cabbage</b>	Vegetative (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>	Vegetative (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 (flowering to fruiting)		- 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 in soil as prophylactic measure against bark borer/ termites.

**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.
		Ranikhet disease	- Vaccinate against Ranikhet disease using Lasota strain vaccine and R <sub>2</sub> B vaccine.
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<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. - Partial harvesting may be done to reduce fish population as the water level is going down.

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



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**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN**

**10<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 11<sup>th</sup> to 15<sup>th</sup> November, 2015 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (6<sup>th</sup> to 9<sup>th</sup> November, 2015)**

During last four days sky was mainly clear to partly cloudy but foggy during morning hours of 6<sup>th</sup> Nov, 2015. **No** rainfall was recorded during last four days. Maximum temperature range observed was 26.0 – 27.9 °C, range of minimum temperature observed was 11.8 – 14.2 °C, mean relative humidity observed in morning and afternoon were 88.5 % and 50.0 % respectively. The average wind speed range was 1.5 – 2.8 km/hr.

**Weather forecast for next five days of Chandel (11<sup>th</sup> to 15<sup>th</sup> November, 2015)**

There may be no rain upto Sunday. Sky will remain mainly clear to partly cloudy with maximum temp. of 23.0 – 25.0 °C & minimum temp. 9.0 – 10.0 °C. Relative humidity may reach upto 98 % (max RH) & 50 % (min RH). The average wind speed may be 2-4 km/ hr during next five days. The Wind direction may be 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>- Harvest rice 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 to early vegetative		<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 and early vegetative		<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>Lentil</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- After harvesting of rice, lentil seed may be sown.</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>Dolichos bean</b>	Flowering to fruiting		<ul style="list-style-type: none"> <li>- As the temperature is going down, aphid population will be more.</li> <li>- Harvest the mature fruits and spray neem based pesticides.</li> <li>- If it is in initial flowering stage, then spray Cypermethrin @ 2 ml/ litre of water.</li> <li>- Earthing up of soil, followed by top dressing with 20g DAP + 5g MOP + 3kg FYM will helpful for fruiting.</li> </ul>
<b>Garlic</b>	Land preparation to planting		<ul style="list-style-type: none"> <li>- Garlic bulblets may be planted in prepared beds.</li> </ul>
<b>Garden pea</b>	Sowing to early vegetative		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. <ul style="list-style-type: none"> <li>- Avoid plucking off of young shoots especially of dwarf tang short</li> </ul>



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



**“Gramin Krishi Mausam Seva”**

			duration crops (variety like Azad, Arkel, etc.). It will delay fruiting & reduce yield.
<b>Cabbage</b>	Vegetative (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>	Vegetative (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 (flowering to fruiting)		- 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 in soil as prophylactic measure against bark borer/ termites.

**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.
		Ranikhet disease	- Vaccinate against Ranikhet disease using Lasota strain vaccine and R <sub>2</sub> B vaccine.
		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. - Partial harvesting may be done to reduce fish population as the water level is going down.

(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**

**10<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 11<sup>th</sup> to 15<sup>th</sup> November, 2015 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (6<sup>th</sup> to 9<sup>th</sup> November, 2015)**

During last four days sky was mainly clear to partly cloudy but foggy during morning hours of 6<sup>th</sup> Nov, 2015. **No** rainfall was recorded during last four days. Maximum temperature range observed was 26.0 – 27.9 °C, range of minimum temperature observed was 11.8 – 14.2 °C, mean relative humidity observed in morning and afternoon were 88.5 % and 50.0 % respectively. The average wind speed range was 1.5 – 2.8 km/hr.

**Weather forecast for next five days of Churachandpur (11<sup>th</sup> to 15<sup>th</sup> November, 2015)**

There may be no rain upto Sunday. Sky will remain mainly clear to partly cloudy with maximum temp. of 23.0 – 25.0 °C & minimum temp. 8.0 – 10.0 °C. Relative humidity may reach upto 99 % (max RH) & 44 % (min RH). The average wind speed may be 3-4 km/ hr during next five days. The Wind direction may be 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>- Harvest rice 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 to early vegetative		<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 and early vegetative		<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>Lentil</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- After harvesting of rice, lentil seed may be sown.</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>Dolichos bean</b>	Flowering to fruiting		<ul style="list-style-type: none"> <li>- As the temperature is going down, aphid population will be more.</li> <li>- Harvest the mature fruits and spray neem based pesticides.</li> <li>- If it is in initial flowering stage, then spray Cypermethrin @ 2 ml/ litre of water.</li> <li>- Earthing up of soil, followed by top dressing with 20g DAP + 5g MOP + 3kg FYM will helpful for fruiting.</li> </ul>
<b>Garlic</b>	Land preparation to planting		<ul style="list-style-type: none"> <li>- Garlic bulblets may be planted in prepared beds.</li> </ul>
<b>Garden pea</b>	Sowing to early vegetative		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. <ul style="list-style-type: none"> <li>- Avoid plucking off of young shoots especially of dwarf tang short</li> </ul>



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



**“Gramin Krishi Mausam Seva”**

			duration crops (variety like Azad, Arkel, etc.). It will delay fruiting & reduce yield.
<b>Cabbage</b>	Vegetative (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>	Vegetative (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 (flowering to fruiting)		- 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 in soil as prophylactic measure against bark borer/ termites.

**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.
		Ranikhet disease	- Vaccinate against Ranikhet disease using Lasota strain vaccine and R <sub>2</sub> B vaccine.
		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. - Partial harvesting may be done to reduce fish population as the water level is going down.

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

**MANIPUR BULLETIN**

**10<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 11<sup>th</sup> to 15<sup>th</sup> November, 2015 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (6<sup>th</sup> to 9<sup>th</sup> November, 2015)**

During last four days sky was mainly clear to partly cloudy but foggy during morning hours of 6<sup>th</sup> Nov, 2015. **No** rainfall was recorded during last four days. Maximum temperature range observed was 26.0 – 27.9 °C, range of minimum temperature observed was 11.8 – 14.2 °C, mean relative humidity observed in morning and afternoon were 88.5 % and 50.0 % respectively. The average wind speed range was 1.5 – 2.8 km/hr.

**Weather forecast for next five days of Imphal-East (11<sup>th</sup> to 15<sup>th</sup> November, 2015)**

There may be no rain upto Sunday. Sky will remain mainly clear to partly cloudy with maximum temp. of 25.0 – 27.0 °C & minimum temp. 9.0 – 11.0 °C. Relative humidity may reach upto 100 % (max RH) & 38 % (min RH). The average wind speed may be 2-4 km/ hr during next five days. The Wind direction may be 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>- Harvest rice 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 to early vegetative		<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 and early vegetative		<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>Lentil</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- After harvesting of rice, lentil seed may be sown.</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>Dolichos bean</b>	Flowering to fruiting		<ul style="list-style-type: none"> <li>- As the temperature is going down, aphid population will be more.</li> <li>- Harvest the mature fruits and spray neem based pesticides.</li> <li>- If it is in initial flowering stage, then spray Cypermethrin @ 2 ml/ litre of water.</li> <li>- Earthing up of soil, followed by top dressing with 20g DAP + 5g MOP + 3kg FYM will helpful for fruiting.</li> </ul>
<b>Garlic</b>	Land preparation to planting		<ul style="list-style-type: none"> <li>- Garlic bulblets may be planted in prepared beds.</li> </ul>
<b>Garden pea</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>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.</li> <li>- Avoid plucking off of young shoots especially of dwarf tang short</li> </ul>



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



**“Gramin Krishi Mausam Seva”**

			duration crops (variety like Azad, Arkel, etc.). It will delay fruiting & reduce yield.
<b>Cabbage</b>	Vegetative (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>	Vegetative (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 (flowering to fruiting)		- 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 in soil as prophylactic measure against bark borer/ termites.

**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.
		Ranikhet disease	- Vaccinate against Ranikhet disease using Lasota strain vaccine and R <sub>2</sub> B vaccine.
		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. - Partial harvesting may be done to reduce fish population as the water level is going down.

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



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**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN**

**10<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 11<sup>th</sup> to 15<sup>th</sup> November, 2015 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (6<sup>th</sup> to 9<sup>th</sup> November, 2015)**

During last four days sky was mainly clear to partly cloudy but foggy during morning hours of 6<sup>th</sup> Nov, 2015. No rainfall was recorded during last four days. Maximum temperature range observed was 26.0 – 27.9 °C, range of minimum temperature observed was 11.8 – 14.2 °C, mean relative humidity observed in morning and afternoon were 88.5 % and 50.0 % respectively. The average wind speed range was 1.5 – 2.8 km/hr.

**Weather forecast for next five days of Imphal-West (11<sup>th</sup> to 15<sup>th</sup> November, 2015)**

There may be no rain upto Sunday. Sky will remain mainly clear to partly cloudy with maximum temp. of 25.0 – 27.0 °C & minimum temp. 9.0 – 11.0 °C. Relative humidity may reach upto 100 % (max RH) & 38 % (min RH). The average wind speed may be 2-4 km/ hr during next five days. The Wind direction may be 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>- Harvest rice 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 to early vegetative		<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>
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<b>Lentil</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- After harvesting of rice, lentil seed may be sown.</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>Dolichos bean</b>	Flowering to fruiting		<ul style="list-style-type: none"> <li>- As the temperature is going down, aphid population will be more.</li> <li>- Harvest the mature fruits and spray neem based pesticides.</li> <li>- If it is in initial flowering stage, then spray Cypermethrin @ 2 ml/ litre of water.</li> <li>- Earthing up of soil, followed by top dressing with 20g DAP + 5g MOP + 3kg FYM will helpful for fruiting.</li> </ul>
<b>Garlic</b>	Land preparation to planting		<ul style="list-style-type: none"> <li>- Garlic bulblets may be planted in prepared beds.</li> </ul>
<b>Garden pea</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>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.</li> <li>- Avoid plucking off of young shoots especially of dwarf tang short</li> </ul>



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Manipur Centre, Lamphelpat, Imphal - 795 004**



**“Gramin Krishi Mausam Seva”**

			duration crops (variety like Azad, Arkel, etc.). It will delay fruiting & reduce yield.
<b>Cabbage</b>	Vegetative (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>	Vegetative (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 (flowering to fruiting)		- 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 in soil as prophylactic measure against bark borer/ termites.

**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.
		Ranikhet disease	- Vaccinate against Ranikhet disease using Lasota strain vaccine and R <sub>2</sub> B vaccine.
		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. - Partial harvesting may be done to reduce fish population as the water level is going down.

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



**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN**

**10<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 11<sup>th</sup> to 15<sup>th</sup> November, 2015 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (6<sup>th</sup> to 9<sup>th</sup> November, 2015)**

During last four days sky was mainly clear to partly cloudy but foggy during morning hours of 6<sup>th</sup> Nov, 2015. No rainfall was recorded during last four days. Maximum temperature range observed was 26.0 – 27.9 °C, range of minimum temperature observed was 11.8 – 14.2 °C, mean relative humidity observed in morning and afternoon were 88.5 % and 50.0 % respectively. The average wind speed range was 1.5 – 2.8 km/hr.

**Weather forecast for next five days of Senapati (11<sup>th</sup> to 15<sup>th</sup> November, 2015)**

There may be no rain upto Sunday. Sky will remain mainly clear to partly cloudy with maximum temp. of 20.0 – 23.0 °C & minimum temp. 7.0 – 10.0 °C. Relative humidity may reach upto 98 % (max RH) & 36 % (min RH). The average wind speed may be 2-4 km/ hr during next five days. The Wind direction may be 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>- Harvest rice 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 to early vegetative		<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 and early vegetative		<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>Lentil</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- After harvesting of rice, lentil seed may be sown.</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>Dolichos bean</b>	Flowering to fruiting		<ul style="list-style-type: none"> <li>- As the temperature is going down, aphid population will be more.</li> <li>- Harvest the mature fruits and spray neem based pesticides.</li> <li>- If it is in initial flowering stage, then spray Cypermethrin @ 2 ml/ litre of water.</li> <li>- Earthing up of soil, followed by top dressing with 20g DAP + 5g MOP + 3kg FYM will helpful for fruiting.</li> </ul>
<b>Garlic</b>	Land preparation to planting		<ul style="list-style-type: none"> <li>- Garlic bulblets may be planted in prepared beds.</li> </ul>
<b>Garden pea</b>	Sowing to early vegetative		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. <ul style="list-style-type: none"> <li>- Avoid plucking off of young shoots especially of dwarf tang short</li> </ul>



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**“Gramin Krishi Mausam Seva”**

			duration crops (variety like Azad, Arkel, etc.). It will delay fruiting & reduce yield.
<b>Cabbage</b>	Vegetative (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>	Vegetative (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 (flowering to fruiting)		- 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 in soil as prophylactic measure against bark borer/ termites.

**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.
		Ranikhet disease	- Vaccinate against Ranikhet disease using Lasota strain vaccine and R <sub>2</sub> B vaccine.
		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. - Partial harvesting may be done to reduce fish population as the water level is going down.

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**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN**

**10<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 11<sup>th</sup> to 15<sup>th</sup> November, 2015 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (6<sup>th</sup> to 9<sup>th</sup> November, 2015)**

During last four days sky was mainly clear to partly cloudy but foggy during morning hours of 6<sup>th</sup> Nov, 2015. **No** rainfall was recorded during last four days. Maximum temperature range observed was 26.0 – 27.9 °C, range of minimum temperature observed was 11.8 – 14.2 °C, mean relative humidity observed in morning and afternoon were 88.5 % and 50.0 % respectively. The average wind speed range was 1.5 – 2.8 km/hr.

**Weather forecast for next five days of Tamenglong (11<sup>th</sup> to 15<sup>th</sup> November, 2015)**

There may be no rain upto Sunday. Sky will remain mainly clear to partly cloudy with maximum temp. of 25.0 – 27.0 °C & minimum temp. 8.0 – 9.0 °C. Relative humidity may reach upto 98 % (max RH) & 40 % (min RH). The average wind speed may be 2-4 km/ hr during next five days. The Wind direction may be 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>- Harvest rice 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 to early vegetative		<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 and early vegetative		<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>Lentil</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- After harvesting of rice, lentil seed may be sown.</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>Dolichos bean</b>	Flowering to fruiting		<ul style="list-style-type: none"> <li>- As the temperature is going down, aphid population will be more.</li> <li>- Harvest the mature fruits and spray neem based pesticides.</li> <li>- If it is in initial flowering stage, then spray Cypermethrin @ 2 ml/ litre of water.</li> <li>- Earthing up of soil, followed by top dressing with 20g DAP + 5g MOP + 3kg FYM will helpful for fruiting.</li> </ul>
<b>Garlic</b>	Land preparation to planting		<ul style="list-style-type: none"> <li>- Garlic bulblets may be planted in prepared beds.</li> </ul>
<b>Garden pea</b>	Sowing to early vegetative		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. <ul style="list-style-type: none"> <li>- Avoid plucking off of young shoots especially of dwarf tang short</li> </ul>



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**“Gramin Krishi Mausam Seva”**

			duration crops (variety like Azad, Arkel, etc.). It will delay fruiting & reduce yield.
<b>Cabbage</b>	Vegetative (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>	Vegetative (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 (flowering to fruiting)		- 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 in soil as prophylactic measure against bark borer/ termites.

**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.
		Ranikhet disease	- Vaccinate against Ranikhet disease using Lasota strain vaccine and R <sub>2</sub> B vaccine.
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<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. - Partial harvesting may be done to reduce fish population as the water level is going down.

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